

**H.P. University, Summerhill, Shimla**

**Structure and Syllabus**

**of**

**Botany**

**for**

**B.Sc. Undergraduate Programme**

**Based on:**

**U.G.C. Choice Based Credit System (CBCS)  
Model Curriculum**

**(Effective from Academic Session July, 2016)**

## Skill Enhancement Course

### Biofertilizers

(BOTA 302)

(Credits 4; 3 Theory + 1 Tutorial)

#### Lectures: 45

**Unit 1:** General account about the microbes used as biofertilizer – *Rhizobium* – isolation, identification, mass multiplication, carrier based inoculants, Actinorrhizal symbiosis.

(6 Lectures)

**Unit 2:** *Azospirillum*: isolation and mass multiplication – carrier based inoculant, associative effect of different microorganisms. *Azotobacter*: classification, characteristics – crop response to *Azotobacter* inoculum, maintenance and mass multiplication. (12 Lectures)

**Unit 3:** Cyanobacteria (blue green algae), *Azolla* and *Anabaena azollae* association, nitrogen fixation, factors affecting growth, blue green algae and *Azolla* in rice cultivation.

(6 Lectures)

**Unit 4:** Mycorrhizal association, types of mycorrhizal association, taxonomy, occurrence and distribution, phosphorus nutrition, growth and yield – colonization of VAM – isolation and inoculum production of VAM, and its influence on growth and yield of crop plants.

(12 Lectures)

**Unit 5:** Organic farming – Green manuring and organic fertilizers, Recycling of bio-degradable municipal, agricultural and Industrial wastes – biocompost making methods, types and method of vermicomposting – field Application. (9 Lectures)

#### Suggested Readings

1. Dubey, R.C., 2005 A Text book of Biotechnology S.Chand & Co, New Delhi.
2. Kumaresan, V. 2005, Biotechnology, Saras Publications, New Delhi.
3. John Jothi Prakash, E. 2004. Outlines of Plant Biotechnology. Emkay Publication, New Delhi.
4. Sathe, T.V. 2004 Vermiculture and Organic Farming. Daya publishers.
5. Subha Rao, N.S. 2000, Soil Microbiology, Oxford & IBH Publishers, New Delhi.
6. Vayas, S.C, Vayas, S. and Modi, H.A. 1998 Bio-fertilizers and organic Farming Akta Prakashan, Nadiad

## Skill Enhancement Course

### Herbal Technology

(BOTA 303)

(Credits 4; 3 Theory + 1 Tutorial)

#### Lectures: 45

**Unit 1:** Herbal medicines: history and scope - definition of medical terms - role of medicinal plants in Siddha systems of medicine; cultivation - harvesting - processing - storage - marketing and utilization of medicinal plants. **(9 Lectures)**

**Unit 2:** Pharmacognosy - systematic position and medicinal uses of the following herbs in curing various ailments; Tulsi, Ginger, Fenugreek, Indian Goose berry and Ashoka. **(9 Lectures)**

**Unit 3:** Phytochemistry - active principles and methods of their testing - identification and utilization of the medicinal herbs; *Catharanthus roseus* (cardiotonic), *Withania somnifera* (drugs acting on nervous system), *Clerodendron phlomoides* (anti-rheumatic) and *Centella asiatica* (memory booster). **(9 Lectures)**

**Unit 4:** Analytical pharmacognosy: Drug adulteration - types, methods of drug evaluation - Biological testing of herbal drugs - Phytochemical screening tests for secondary metabolites (alkaloids, flavonoids, steroids, triterpenoids, phenolic compounds) **(12 Lectures)**

**Unit 5:** Medicinal plant banks micro propagation of important species (*Withania somnifera*, neem and tulsi- Herbal foods-future of pharmacognosy) **(6 Lectures)**

#### Suggested Readings

1. Glossary of Indian medicinal plants, R.N.Chopra, S.L.Nayar and I.C.Chopra, 1956. C.S.I.R., New Delhi.
2. The indigenous drugs of India, Kanny, Lall, Dey and Raj Bahadur, 1984. International Book Distributors.
3. Herbal plants and Drugs Agnes Arber, 1999. Mangal Deep Publications.
4. Ayurvedic drugs and their plant source. V.V. Sivarajan and Balachandran Indra 1994. Oxford IBH publishing Co.
5. Ayurveda and Aromatherapy. Miller, Light and Miller, Bryan, 1998. Banarsidass, Delhi.
6. Principles of Ayurveda, Anne Green, 2000. Thomsons, London.
7. Pharmacognosy, Dr.C.K.Kokate et al. 1999. Nirali Prakashan.

**Skill Enhancement Course**  
**Nursery and Gardening**  
**(BOTA 402)**  
**(Credits 4; 3 Theory + 1 Tutorial)**

**Lectures: 45**

**Unit 1:** Nursery: definition, objectives and scope and building up of infrastructure for nursery, planning and seasonal activities - Planting - direct seeding and transplants. **(8 Lectures)**

**Unit 2:** Seed: Structure and types - Seed dormancy; causes and methods of breaking dormancy - Seed storage: Seed banks, factors affecting seed viability, genetic erosion - Seed production technology - seed testing and certification. **(9 Lectures)**

**Unit 3:**Vegetative propagation: air-layering, cutting, selection of cutting, collecting season, treatment of cutting, rooting medium and planting of cuttings - Hardening of plants - green house - mist chamber, shed root, shade house and glass house. **(9Lectures)**

**Unit 4:** Gardening: definition, objectives and scope - different types of gardening - landscape and home gardening - parks and its components - plant materials and design - computer applications in landscaping - Gardening operations: soil laying, manuring, watering, management of pests and diseases and harvesting. **(12 Lectures)**

**Unit 5:** Sowing/raising of seeds and seedlings - Transplanting of seedlings - Study of cultivation of different vegetables: cabbage, brinjal, lady's finger, onion, garlic, tomatoes, and carrots - Storage and marketing procedures **(9 Lectures)**

**Suggested Readings**

1. Bose T.K. & Mukherjee, D., 1972, Gardening in India, Oxford & IBH Publishing Co., New Delhi.
2. Sandhu, M.K., 1989, Plant Propagation, Wile Eastern Ltd., Bangalore, Madras.
3. Kumar, N., 1997, Introduction to Horticulture, Rajalakshmi Publications, Nagercoil.
4. Edmond Musser & Andres, Fundamentals of Horticulture, McGraw Hill Book Co., New Delhi.
5. Agrawal, P.K. 1993, Hand Book of Seed Technology, Dept. of Agriculture and Cooperation, National Seed Corporation Ltd., New Delhi.
6. Janick Jules. 1979. Horticultural Science. (3rd Ed.), W.H. Freeman and Co., San Francisco, USA.



**Skill Enhancement Course  
Floriculture  
(BOTA 403)**

**(Credits 4; 3 Theory + 1 Tutorial)**

**Lectures: 45**

**Unit 1:** Introduction: History of gardening; Importance and scope of floriculture and landscape gardening. **(2 Lectures)**

**Unit 2:** Nursery Management and Routine Garden Operations: Sexual and vegetative methods of propagation; Soil sterilization; Seed sowing; Pricking; Planting and transplanting; Shading; Stopping or pinching; Defoliation; Wintering; Mulching; Topiary; Role of plant growth regulators.

**(8 Lectures)**

**Unit 3:** Ornamental Plants: Flowering annuals; Herbaceous perennials; Divine vines; Shade and ornamental trees; Ornamental bulbous and foliage plants; Cacti and succulents; Palms and Cycads; Ferns and Selaginellas; Cultivation of plants in pots; Indoor gardening; Bonsai. **(14 Lectures)**

**Unit 4:** Principles of Garden Designs: English, Italian, French, Persian, Mughal and Japanese gardens; Features of a garden (Garden wall, Fencing, Steps, Hedge, Edging, Lawn, Flower beds, Shrubbery, Borders, Water garden. Some Famous gardens of India. **(6 Lectures)**

**Unit 5:** Landscaping Places of Public Importance: Landscaping highways and Educational institutions. **(4 Lectures)**

**Unit 6:** Commercial Floriculture: Factors affecting flower production; Production and packaging of cut flowers; Flower arrangements; Methods to prolong vase life; Cultivation of Important cut flowers (Carnation, Aster, Chrysanthemum, Dahlia, Gerbera, Gladiolous, Marigold, Rose, Lilium, Orchids). **(8 Lectures)**

**Unit 7:** Diseases and Pests of Ornamental Plants. **(3 Lectures)**

**Suggested Readings**

1. Randhawa, G.S. and Mukhopadhyay, A. 1986. Floriculture in India. Allied Publishers.

## **Skill Enhancement Course**

### **Medicinal Botany**

**(BOTA 504)**

**(Credits 4; 3 Theory + 1 Tutorial)**

#### **Lectures: 45**

**Unit 1:** History, Scope and Importance of Medicinal Plants. Indigenous Medicinal Sciences; Definition and Scope-Ayurveda: History, origin, panchamahabhutas, saptadhatu and tridosha concepts, Rasayana, plants used in ayurvedic treatments, Siddha: Origin of Siddha medicinal systems, Basis of Siddha system, plants used in Siddha medicine. Unani: History, concept: Umoor-e- tabiya, tumors treatments/ therapy, polyherbal formulations. **(15 Lectures)**

**Unit 2:** Conservation of endangered and endemic medicinal plants. Definition: endemic and endangered medicinal plants, Red list criteria; In situ conservation: Biosphere reserves, sacred groves, National Parks; Ex situ conservation: Botanic Gardens, Ethnomedicinal plant Gardens. Propagation of Medicinal Plants: Objectives of the nursery, its classification, important components of a nursery, sowing, pricking, use of green house for nursery production, propagation through cuttings, layering, grafting and budding. **(15 Lectures)**

**Unit 3:** Ethnobotany and Folk medicines. Definition; Ethnobotany in India: Methods to study ethnobotany; Applications of Ethnobotany: National interacts, Palaeo-ethnobotany. folk medicines of ethnobotany, ethnomedicine, ethnoecology, ethnic communities of India. Application of natural products to certain diseases- Jaundice, cardiac, infertility, diabetics, Blood pressure and skin diseases. **(15 Lectures)**

#### **Suggested Readings**

1. Trivedi P C, 2006. Medicinal Plants: Ethnobotanical Approach, Agrobios, India.
2. Purohit and Vyas, 2008. Medicinal Plant Cultivation: A Scientific Approach, 2<sup>nd</sup> edn. Agrobios, India.

## Skill Enhancement Course

### **Ethnobotany (BOTA 505) (Credits 4; 3 Theory + 1 Tutorial Lectures: 45**

#### **Unit 1: Ethnobotany**

Introduction, concept, scope and objectives; Ethnobotany as an interdisciplinary science. The relevance of ethnobotany in the present context; Major and minor ethnic groups or Tribals of India, and their life styles. Plants used by the tribals: a) Food plants b) intoxicants and beverages c) Resins and oils and miscellaneous uses. **(9 Lectures)**

#### **Unit 2: Methodology of Ethnobotanical studies**

a) Field work b) Herbarium c) Ancient Literature d) Archaeological findings e) temples and sacred places. **(9 Lectures)**

#### **Unit 3: Role of ethnobotany in modern Medicine**

Medico-ethnobotanical sources in India; Significance of the following plants in ethnobotanical practices (along with their habitat and morphology) a) *Azadirachta indica* b) *Ocimum sanctum* c) *Vitex negundo*. d) *Gloriosa superba* e) *Tribulus terrestris* f) *Pongamia pinnata* g) *Cassia auriculata* h) *Indigofera tinctoria*. Role of ethnobotany in modern medicine with special example *Rauvolfia serpentina*, *Trichopus zeylanicus*, *Artemisia*, *Withania*.

Role of ethnic groups in conservation of plant genetic resources. Endangered taxa and forest management (participatory forest management). **(15 Lectures)**

#### **Unit 4: Ethnobotany and legal aspects**

Ethnobotany as a tool to protect interests of ethnic groups. Sharing of wealth concept with few examples from India. Biopiracy, Intellectual Property Rights and Traditional Knowledge. **(12 Lectures)**

### **Suggested Readings**

- 1) S.K. Jain, Manual of Ethnobotany, Scientific Publishers, Jodhpur, 1995.
- 2) S.K. Jain (ed.) Glimpses of Indian. Ethnobotny, Oxford and I B H, New Delhi – 1981
- 3) Lone et al., Palaeoethnobotany
- 4) S.K. Jain (ed.) 1989. Methods and approaches in ethnobotany. Society of ethnobotanists, Lucknow, India.
- 5) S.K. Jain, 1990. Contributions of Indian ethnobotny. Scientific publishers, Jodhpur.
- 6) Colton C.M. 1997. Ethnobotany – Principles and applications. John Wiley and sons – Chichester
- 7) Rama Ro, N and A.N. Henry (1996). The Ethnobotany of Eastern Ghats in Andhra Pradesh, India. Botanical Survey of India. Howrah. 8) Rajiv K. Sinha – Ethnobotany The Renaissance of Traditional Herbal Medicine – INA –SHREE Publishers, Jaipur-1996 9)

**Skill Enhancement Course**  
**Plant Diversity and Human Welfare**  
**(BOTA 604)**  
**(Credits 4; 3 Theory + 1 Tutorial)**

**Lectures: 45**

**Unit 1:** Plant diversity and its scope- Genetic diversity, Species diversity, Plant diversity at the ecosystem level, Agrobiodiversity and cultivated plant taxa, wild taxa. Values and uses of Biodiversity: Ethical and aesthetic values, Precautionary principle, Methodologies for valuation, Uses of plants, Uses of microbes. **(12 Lectures)**

**Unit 2: Loss of Biodiversity:** Loss of genetic diversity, Loss of species diversity, Loss of ecosystem diversity, Loss of agrobiodiversity, Projected scenario for biodiversity loss, **Management of Plant Biodiversity:** Organizations associated with biodiversity management-Methodology for execution-IUCN, UNEP, UNESCO, WWF, NBPGR; Biodiversity legislation and conservations, Biodiversity information management and communication. **(12 Lectures)**

**Unit 3: Conservation of Biodiversity:** Conservation of genetic diversity, species diversity and ecosystem diversity, *In situ* and *ex situ* conservation, Social approaches to conservation, Biodiversity awareness programmes, Sustainable development. **(12 Lectures)**

**Unit 4: Role of plants in relation to Human Welfare;** a) Importance of forestry their utilization and commercial aspects b) Avenue trees, c) Ornamental plants of India. d) Alcoholic beverages through ages. Fruits and nuts: Important fruit crops their commercial importance. Wood and its uses. **(9 Lectures)**

**Suggested Readings**

1. Krishnamurthy, K.V. (2004). An Advanced Text Book of Biodiversity - Principles and Practices. Oxford and IBH Publications Co. Pvt. Ltd. New Delhi

**Skill Enhancement Course**  
**Mushroom Cultivation Technology**  
**(BOTA 605)**  
**(Credits 4; 3 Theory + 1 Tutorial)**

**Lectures: 45**

**Unit 1:** Introduction, history. Nutritional and medicinal value of edible mushrooms; Nutrition and nutraceuticals – Proteins, amino acids, mineral elements nutrition, carbohydrates, crude fibre content, vitamins; Poisonous mushrooms. **(5 Lectures)**

**Unit 2:** Cultivation Technology : Infrastructure: substrates (locally available) Polythene bag, vessels, Inoculation hook, inoculation loop, low cost stove, sieves, culture rack, mushroom unit (Thatched house) water sprayer, tray, small polythene bag. Pure culture: Medium, sterilization, preparation of spawn, multiplication. **(12 Lectures)**

**Unit 3:** Cultivation practices of *Agaricus bisporus*, *Pleurotus* sp. and *Volvariella volvacea*. Composting technology in mushroom production, Low cost technology, Mushroom bed preparation - paddy straw, sugarcane trash, maize straw, banana leaves. Factors affecting the mushroom bed preparation. **(12 Lectures)**

**Unit 4:** Storage : Short-term storage (Refrigeration - upto 24 hours) Long term Storage (canning, pickels, papads), drying, storage in salt solutions. **(6 Lectures)**

**Unit 5:** Food Preparation : Types of foods prepared from mushroom. Research Centres - National level and Regional level. Cost benefit ratio - Marketing in India and abroad, Export Value **(5 Lectures)**

**Unit: 6** Diseases and pests of mushrooms **(5 Lectures)**

**Suggested Readings**

1. Marimuthu, T. Krishnamoorthy, A.S. Sivaprakasam, K. and Jayarajan. R (1991) Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
2. Swaminathan, M. (1990) Food and Nutrition. Bappco, The Bangalore Printing and Publishing Co. Ltd., No. 88, Mysore Road, Bangalore - 560018.
3. Tewari, Pankaj Kapoor, S.C., (1988). Mushroom cultivation, Mittal Publications, Delhi.
4. Nita Bahl (1984-1988) Hand book of Mushrooms, II Edition, Vol. I & Vol. II.

**Proposed Syllabus and Scheme of  
Examination**

**for**

**B. SC. PHYSICAL SCIENCE  
(PHYSICS, MATHEMATICS,  
COMPUTER SCIENCE)**

**Under**

**Choice Based Credit System**

**Department of Computer Science  
Himachal Pradesh University  
Shimla**

## **BPHS101: Object Oriented Programming in C++**

### **Theory: 60 Lectures**

#### **UNIT – I**

**Programming Concepts:** Algorithm and its characteristics, pseudo code / flow chart, program, identifiers, variables, constants, primitive data types, expressions, structured data types, arrays, compilers and interpreters **(15 LECTURE)**

#### **UNIT – II**

**Object Oriented Concepts:** Abstraction, encapsulation, objects, classes, methods, constructors, inheritance, polymorphism, static and dynamic binding, overloading. Program Development: Object oriented analysis, design, unit testing & debugging, system testing & integration, maintenance. **(15 LECTURE)**

#### **UNIT – III**

**Introduction to structured programming:** Data types- simple data types, floating data types, character data types, string data types, arithmetic operators and operator precedence, variables and constant declarations, expressions, input using the extraction operator >> and cin, output using the insertion operator << and cout, preprocessor directives, increment (++) and decrement operations (--). **(15 LECTURE)**

#### **UNIT – IV**

**Creating a C++ program:** Input/output, relational operators, logical operators and logical expressions, if and if ... else statement, switch and break statements. “for”, “while” and “do – while” loops, break and continue statement, nested control statement, value returning functions, void functions, value versus reference parameters, local and global variables, static and automatic variables, enumeration type. **(15 LECTURE)**

#### **Books Recommended:**

- 1 Richard Johnson, “*An Introduction to Object-Oriented Application Development*”, Thomson Learning, 2006.
- 2 B. Stroustrup, “*The C++ Programming Language*”, Addison Wesley, 2004.

## **BPHS101P: Object Oriented Programming in C++ LAB**

### **Practical: 60 Lectures**

**(SEC4)**

**BPHS602: System Analysis and Design**

**Theory: 45 Lectures**

**UNIT – I**

**Planning Phase:** Introduction, Development Life Cycle, Project Identification, Feasibility Analysis, Project Selection, Project Plan, Management and Control **(12 LECTURE)**

**UNIT – II**

**Analysis Phase:** Requirement Determination, Requirement and Analysis Techniques, Requirement Gathering Techniques, Use Cases. Process Modeling, Creating Data Flow Diagram, Data Modeling: E-R Diagram, Validating an ERD. **(11 LECTURE)**

**UNIT – III**

**Design Phase:** Transition from Requirement to Design, Influences on the Acquisition Strategy. Architecture Design: Elements of Architecture, Creating and Architecture Design, Hardware and Software Specification, Use Interface Design, Moving from Logical to Physical Process Models. **(11 LECTURE)**

**UNIT – IV**

**Implementation Phase:** System Implementation, Training and Supporting Users, Coding, Testing, Program Test, System Test, System Implementation, Maintenance. Audit of computer system usage, Audit trails, Threat to computer system and control measures, Disaster recovery and contingency planning **(11 LECTURE)**

**Books Recommended:**

1. Alan Dennis, Barbara Haley Wixom, Roberta M. Roth, “*System Analysis Design*”, 4<sup>th</sup> Edition, John Wiley & Sons, Inc. 2005.
2. Jeffrey A. Hofer Joey F. George Joseph S. Valacich, Addison Weseley, “*Modern System Analysis and Design*”.



**(DSE-3B)                      BPHS604: Computer Networks**  
**Theory: 60 Lectures**

**UNIT – I**

**Basic Concepts:** Components of data communication, distributed processing, Line configuration, topology, transmission mode, and categories of networks. OSI and TCP/IP Models: Layers and their functions, comparison of models. Digital Transmission: Interfaces and Modems: DTE-DCE Interface, modems, cable modems.

**Transmission Media:** Guided and unguided, Attenuation, distortion, noise, throughput, propagation speed and time, wavelength, Shannon Capacity.  
**(15 LECTURE)**

**UNIT – II**

**Telephony:** Multiplexing, error detection and correction, Many to one, one to many, WDM, TDM, FDM, circuit switching, packet switching and message switching. Data Link control protocols: Line discipline, flow control, error control, synchronous and asynchronous protocols overview. ISDN: Services, historical outline, subscriber's access, ISDN, Layers, and broadband ISDN.

**(15 LECTURE)**

**UNIT – III**

**Devices:** Repeaters, bridges, gateways, routers, The Network Layer, Design Issues, Network Layer Addressing and Routing concepts (Forwarding Function, Filtering Function); Routing Methods (Static and dynamic routing, Distributed routing, Hierarchical Routing); Distance Vector Protocol, Link State protocol. **(15 LECTURE)**

**UNIT – IV**

**Transport and upper layers in OSI Model:** Transport layer functions, connection management, Functions of session layers, Presentation layer, and Application layer. **(15 LECTURE)**

**Books Recommended:**

1. A.S. Tanenbaum, *Computer Networks*, 4th Ed., Pearson Education Asia, 2003.
2. Behrouz A. Forouzan, *Data Communication and Networking*, 2nd Ed., Tata McGraw Hill.
3. D. E. Comer, *Internetworking with TCP/IP*, Pearson Education Asia, 2001.
4. William Stallings, *Data and Computer Communications*, 7<sup>th</sup> Ed., Pearson education Asia, 2002.

**HIMACHAL PRADESH UNIVERSITY**

**SHIMLA – 171005**

**SYLLABUS AND SCHEME  
OF  
EXAMINATION IN THE SUBJECT OF  
CHEMISTRY**

**FOR  
B. Sc. WITH CHEMISTRY  
UNDER  
CHOICE BASED CREDIT SYSTEM  
2016 – 2017 ONWARDS**

# **Skill Enhancement Courses**

**(4 Courses)**

**One Each in Semesters -**

**(3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>)**

**(Credit: 04 each)**

# SEMESTER - III

## CHEM SEC 301

### BASIC ANALYTICAL CHEMISTRY

Max. Marks: 80

Credits: 4

Time allowed: 03 Hours

#### Note for Examiners and Students:

1. The question paper will consist of five sections A, B, C, D and E. Section E will be compulsory. Examiner will set nine questions in all, selecting two questions from section A, B, C, and D of **15** marks each and may contain more than one part. Section E will be of **20** marks and consists of 10 objective type questions (in MCQ/true and false / fill in the blanks) of **one** mark each and 5 short answer questions of **two** marks each covering the entire paper.
2. The candidate will be required to attempt five questions in all i.e. selecting one question from each section including the compulsory question. The duration of the examination will be 3 hours.

#### SECTION – A

**Introduction:** Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results, from the point of view of significant figures. **Analysis of soil:** Composition of soil, Concept of pH and pH measurement, Complexometric titrations, Chelation, Chelating agents, use of indicators.

a. Determination of pH of soil samples. b. Estimation of Calcium and Magnesium ions as Calcium carbonate by complexometric titration. (15 Hours)

#### SECTION – B

**Analysis of water:** Definition of pure water, sources responsible for contaminating water, water sampling methods, water purification methods.

a. Determination of pH, acidity and alkalinity of a water sample. b. Determination of dissolved oxygen (DO) of a water sample.

**Analysis of food products:** Nutritional value of foods, idea about food processing and food preservations and adulteration.

a. Identification of adulterants in some common food items like coffee powder, asafoetida, chilli powder, turmeric powder, coriander powder and pulses, etc. b. Analysis of preservatives and colouring matter. (18 Hours)

#### SECTION – C

**Chromatography:** Definition, general introduction on principles of chromatography, paper chromatography, TLC etc. a. Paper chromatographic separation of mixture of metal ion ( $\text{Fe}^{3+}$  and  $\text{Al}^{3+}$ ). b. To compare paint samples by TLC method. Ion-exchange: Column, ion-exchange chromatography etc. Determination of ion exchange capacity of anion / cation exchange resin (using batch procedure if use of column is not feasible). (12 Hours)

## SECTION – D

**Analysis of cosmetics:** Major and minor constituents and their function

a. Analysis of deodorants and antiperspirants, Al, Zn, boric acid, chloride, sulphate. b. Determination of constituents of talcum powder: Magnesium oxide, Calcium oxide, Zinc oxide and Calcium carbonate by complexometric titration. **Suggested Applications (Any one):**

a. To study the use of phenolphthalein in trap cases. b. To analyze arson accelerants. c. To carry out analysis of gasoline.

**Suggested Instrumental demonstrations:**

a. Estimation of macro nutrients: Potassium, Calcium, Magnesium in soil samples by flame photometry.

b. Spectrophotometric determination of Iron in Vitamin / Dietary Tablets.

c. Spectrophotometric Identification and Determination of Caffeine and Benzoic Acid in Soft Drink (15 Hours)

**Reference Books:**

1. Willard, H.H., Merritt, L.L., Dean, J. & Settoe, F.A. Instrumental Methods of Analysis. 7th Ed. Wadsworth Publishing Co. Ltd., Belmont, California, USA, 1988.
2. Skoog, D.A. Holler F.J. & Nieman, T.A. Principles of Instrumental Analysis, Cengage Learning India Ed.
3. Skoog, D.A.; West, D.M. & Holler, F.J. Fundamentals of Analytical Chemistry 6th Ed., Saunders College Publishing, Fort Worth (1992).
4. Harris, D. C. Quantitative Chemical Analysis, W. H. Freeman.
5. Dean, J. A. Analytical Chemistry Notebook, McGraw Hill.
6. Day, R. A. & Underwood, A. L. Quantitative Analysis, Prentice Hall of India.
7. Freifelder, D. Physical Biochemistry 2nd Ed., W.H. Freeman and Co., N.Y. USA (1982).
8. Cooper, T.G. The Tools of Biochemistry, John Wiley and Sons, N.Y. USA. 16 (1977).
9. Vogel, A. I. Vogel's Qualitative Inorganic Analysis 7th Ed., Prentice Hall.
10. Vogel, A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Prentice Hall.
11. Robinson, J.W. Undergraduate Instrumental Analysis 5th Ed., Marcel Dekker, Inc., New York (1995).

# SEMESTER – IV

## CHEM SEC 402

### FUEL CHEMISTRY & CHEMISTRY OF COSMETICS & PERFUMES

Max. Marks: 80  
Credits: 4

Time allowed: 03 Hours

#### Note for Examiners and Students:

1. *The question paper will consist of five sections A, B, C, D and E. Section E will be compulsory. Examiner will set nine questions in all, selecting two questions from section A, B, C, and D of 15 marks each and may contain more than one part. Section E will be of 20 marks and consists of 10 objective type questions (in MCQ/true and false / fill in the blanks) of one mark each and 5 short answer questions of two marks each covering the entire paper.*
2. *The candidate will be required to attempt five questions in all i.e. selecting one question from each section including the compulsory question. The duration of the examination will be 3 hours.*

#### SECTION-A

Review of energy sources (renewable and non-renewable). Classification of fuels and their calorific value.

Coal: Uses of coal (fuel and nonfuel) in various industries, its composition, carbonization of coal. Coal gas, producer gas and water gas—composition and uses. Fractionation of coal tar, uses of coal tar bases chemicals, requisites of a good metallurgical coke, Coal gasification (Hydro gasification and Catalytic gasification), Coal liquefaction and Solvent Refining.

Petroleum and Petrochemical Industry: Composition of crude petroleum, Refining and different types of petroleum products and their applications. (18 Hours)

#### SECTION-B

Fractional Distillation (Principle and process), Cracking (Thermal and catalytic cracking), Reforming Petroleum and non-petroleum fuels (LPG, CNG, LNG, bio-gas, fuels derived from biomass), fuel from waste, synthetic fuels (gaseous and liquids), clean fuels. Petrochemicals: Vinyl acetate, Propylene oxide, Isoprene, Butadiene, Toluene and its derivatives Xylene.

Lubricants: Classification of lubricants, lubricating oils (conducting and non-conducting) Solid and semisolid lubricants, synthetic lubricants. Properties of lubricants (viscosity index, cloud point, pore point) and their determination. (18 Hours)

#### SECTION-C

A general study including preparation and uses of the following: Hair dye, hair spray, shampoo, suntan lotions, face powder, lipsticks, talcum powder, nail enamel, creams (cold, vanishing and shaving creams), antiperspirants and artificial flavours. (12 Hours)

#### SECTION-D

Essential oils and their importance in cosmetic industries with reference to Eugenol, Geraniol, sandalwood oil, eucalyptus, rose oil, 2-phenyl ethyl alcohol, Jasmone, Civetone, Muscone. (12 Hours)

**Reference Books:**

1. E. Stocchi: Industrial Chemistry, Vol -I, Ellis Horwood Ltd. UK.
2. P.C. Jain, M. Jain: Engineering Chemistry, Dhanpat Rai & Sons, Delhi.
3. Sharma, B.K. & Gaur, H. Industrial Chemistry, Goel Publishing House, Meerut (1996).
4. Stocchi, E. Industrial Chemistry, Vol-I, Ellis Horwood Ltd. UK (1990). 2.
5. Jain, P.C. & Jain, M. Engineering Chemistry Dhanpat Rai & Sons, Delhi.
6. Sharma, B.K. & Gaur, H. Industrial Chemistry, Goel Publishing House, Meerut (1996).

**SEMESTER – V****CHEM SEC 503****CHEMICAL TECHNOLOGY & SOCIETY  
and  
BUSINESS SKILLS FOR CHEMISTRY**

**Max. Marks: 80**  
**Credits: 4**

**Time allowed: 03 Hours**

**Note for Examiners and Students:**

1. *The question paper will consist of five sections A, B, C, D and E. Section E will be compulsory. Examiner will set nine questions in all, selecting two questions from section A, B, C, and D of **15** marks each and may contain more than one part. Section E will be of **20** marks and consists of 10 objective type questions (in MCQ/true and false / fill in the blanks) of **one** mark each and 5 short answer questions of **two** marks each covering the entire paper.*
2. *The candidate will be required to attempt five questions in all i.e. selecting one question from each section including the compulsory question. The duration of the examination will be 3 hours.*

**SECTION-A****Chemical Technology**

Basic principles of distillation, solvent extraction, solid-liquid leaching and liquid-liquid extraction, separation by absorption and adsorption. An introduction into the scope of different types of equipment needed in chemical technology, including reactors, distillation columns, extruders, pumps, mills, emulgators. Scaling up operations in chemical industry. Introduction to clean technology. (18 Hours)

**SECTION-B****Society**

Exploration of societal and technological issues from a chemical perspective. Chemical and scientific literacy as a means to better understand topics like air and water (and the trace materials found in them that are referred to as pollutants); energy from natural sources (i.e. solar and renewable forms), from fossil fuels and from nuclear fission; materials like plastics and polymers and their natural analogues, proteins and nucleic acids, and molecular reactivity and interconversions from simple examples like combustion to complex instances like genetic engineering and the manufacture of drugs. (18 Hours)

## Section - C

### Business Basics

Key business concepts: Business plans, market need, project management and routes to market.

### Chemistry in Industry

Current challenges and opportunities for the chemistry-using industries, role of chemistry in India and global economies. (12 Hours)

## Section - D

### Making money

Financial aspects of business with case studies

### Intellectual property

Concept of intellectual property, patents. (12 Hours)

### Reference Books:

1. [www.rsc.org](http://www.rsc.org)
2. John W. Hill, Terry W. McCreary & Doris K. Kolb, Chemistry for changing times 13th Ed.

## SEMESTER VI

## CHEM SEC 604

### PESTICIDE CHEMISTRY & PHARMACEUTICAL CHEMISTRY

Max. Marks: 80  
Credits: 4

Time allowed: 03 Hours

### Note for Examiners and Students:

1. *The question paper will consist of five sections A, B, C, D and E. Section E will be compulsory. Examiner will set nine questions in all, selecting two questions from section A, B, C, and D of 15 marks each and may contain more than one part. Section E will be of 20 marks and consists of 10 objective type questions (in MCQ/true and false / fill in the blanks) of one mark each and 5 short answer questions of two marks each covering the entire paper.*
2. *The candidate will be required to attempt five questions in all i.e. selecting one question from each section including the compulsory question. The duration of the examination will be 3 hours.*

### SECTION-A

General introduction to pesticides (natural and synthetic), benefits and adverse effects, changing concepts of pesticides, structure activity relationship. (12 Hours)

### SECTION-B

Synthesis and technical manufacture and uses of representative pesticides in the following classes: Organochlorines (DDT, Gammexene,); Organophosphates (Malathion, Parathion ); Carbamates (Carbofuran and carbaryl); Quinones ( Chloranil), Anilides (Alachlor and Butachlor). (15 Hours)

### SECTION - C



Drugs & Pharmaceuticals Drug discovery, design and development; Basic Retrosynthetic approach. Synthesis of the representative drugs of the following classes: analgesics agents, antipyretic agents, antiinflammatory agents (Aspirin, paracetamol, Ibuprofen); antibiotics (Chloramphenicol); antibacterial and antifungal agents (Sulphonamides; Sulphanethoxazol, Sulphacetamide, Trimethoprim); antiviral agents (Acyclovir), Central Nervous System agents (Phenobarbital, Diazepam), Cardiovascular (Glyceryl trinitrate), antilaprosy (Dapsone), HIV-AIDS related drugs (AZT- Zidovudine). (18 Hours)

#### **SECTION -D**

Fermentation Aerobic and anaerobic fermentation. Production of (i) Ethyl alcohol and citric acid, (ii) Antibiotics; Penicillin, Cephalosporin, Chloromycetin and Streptomycin, (iii) Lysine, Glutamic acid, Vitamin B2, Vitamin B12 and Vitamin C. (15 Hours)

#### **Reference Books:**

1. G.L. Patrick: Introduction to Medicinal Chemistry, Oxford University Press, UK
2. Hakishan, V.K. Kapoor: Medicinal and Pharmaceutical Chemistry, Vallabh Prakashan, Pitampura, New Delhi.
3. William O. Foye, Thomas L., Lemke , David A. William: Principles of Medicinal Chemistry, B.I. Waverly Pvt. Ltd. New Delhi.
5. Cremlyn, R. Pesticides. Preparation and Modes of Action, John Wiley & Sons, New York, 1978.

**Himachal Pradesh University**  
**Summer Hill, Shimla-171005**



**Syllabus and Scheme of Examination**

**For**

**B. Sc. with Mathematics**

**&**

**B.A. with Mathematics**

**&**

**B. Sc. Physical Sciences**

**(Physics, Chemistry & Mathematics)**

**&**

**B.Sc. Physical Sciences**

**(Physics, Chemistry & Computer Science)**

**Courses**

**under the**

**Choice Based Credit System**

***w.e.f.***

**Session 2016 -17 onwards**

## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Third Semester

Course Code	MATH304TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Integral Calculus
Type of the Course	Skill Enhancement Course
Number of teaching hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(1), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
End Semester Examination	Max Marks: 70 Maximum Time: 3 hrs.
Total Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 1.3: Integral Calculus

#### Unit-I (15 hrs.)

Integration by Partial fractions, integration of rational and irrational functions. Properties of definite integrals.

#### Unit-II (15 hrs.)

Reduction Formulae,  $\int \sin^n x \, dx$ ,  $\int \cos^n x \, dx$ ,  $\int e^{ax} x^n \, dx$ ,  $\int x^n (\log x)^m \, dx$ ,  $\int x^n \sin x \, dx$ ,  $\int x^n \cos x \, dx$ ,  $\int \sin^n x \cos^n x \, dx$ ,  $\int_0^{\pi/2} \sin^n x \, dx$ ,  $\int_0^{\pi/2} \cos^n x \, dx$ ,  $\int_0^{\pi/2} \sin^n x \cos^n x \, dx$ . Reduction by connecting two integrals (Smaller Index + 1 Method).

#### Unit-III (15 hrs.)

Areas and lengths of curves in the plane, volumes and surfaces of solids of revolution.

#### Unit-IV (15 hrs.)

Double and Triple integrals.

**Books Recommended:**

1. G.B. Thomas and R.L. Finney, *Calculus*, 9th Ed., Pearson Education, Delhi, 2005.
2. H. Anton, I. Bivens and S. Davis, *Calculus*, John Wiley and Sons (Asia) P. Ltd., 2002.

## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Fourth Semester

Course Code	MATH402TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Vector Calculus
Type of the Course	Skill Enhancement Course
Number of teaching hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(1), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
End Semester Examination	Max Marks: 70 Maximum Time: 3 hrs.
Total Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 2.1: Vector Calculus

#### Unit -I(15 hrs.)

Scalar and vector product of three vectors. Product of four vectors. Reciprocal vectors. Vector differentiation, Scalar valued point functions, vector valued point functions. Derivative along a curve, directional derivatives.

#### Unit –II(15 hrs.)

Gradient of a scalar point function. Geometrical interpretation of gradient of a scalar point function ( $\text{grad}\phi$ ). Divergence and curl of a vector point function. Character of divergence and curl of a vector point function. Gradient, Divergence and Curl of sums and products and their related vector identities. Laplacian operator.

### **Unit -III(15 hrs.)**

Orthogonal curvilinear coordinates. Conditions for orthogonality. Fundamental triads of mutually orthogonal unit vectors. Gradient, Divergence, Curl and Laplacian operators in terms of orthogonal curvilinear coordinators. Cylindrical and Spherical coordinates: relation between Cartesian and cylindrical or spherical coordinates.

### **Unit - IV(15 hrs.)**

Vector integration: line integral, surface integral, Volume integral

Theorems of Gauss, Green and Stokes (without proof) and the problems based on these theorems.

### **Books Recommended**

1. G.B. Thomas and R.L. Finney, *Calculus*, 9th Ed., Pearson Education, Delhi, 2005.
2. H. Anton, I. Bivens and S. Davis, *Calculus*, John Wiley and Sons (Asia) P. Ltd. 2002.
3. P.C. Matthew's, *Vector Calculus*, Springer Verlag London Limited, 1998.

## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Fourth Semester

Course Code	MATH403TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Theory of Equations
Type of the Course	Skill Enhancement Course
Number of teaching hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(1), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
End Semester Examination	Max Marks: 70 Maximum Time: 3 hrs.
Total Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 2.2: Theory of Equations

#### Unit-I (15 hrs.)

General properties of polynomials, Graphical representation of a polynomials, maximum and minimum values of a polynomials, General properties of equations,

#### Unit-II (15 hrs.)

Descarte's rule of signs for positive and negative roots, Relation between the roots and the coefficients of equations.

#### Unit-III (15 hrs.)

Symmetric functions, Applications symmetric function of the roots, Transformation of equations. Solutions of reciprocal and binomial equations.

#### Unit-IV (15 hrs.)

Algebraic solutions of the cubic and biquadratic. Properties of the derived functions.

**Books Recommended**

1. W.S. Burnside and A.W. Panton, *The Theory of Equations*, Dublin University Press, 1954.
2. C. C. MacDuffee, *Theory of Equations*, John Wiley & Sons Inc., 1954.



## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Fourth Semester

Course Code	MATH404TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Number Theory
Type of the Course	Skill Enhancement Course
Number of teaching hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(1), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
End Semester Examination	Max Marks: 70 Maximum Times: 3 hrs.
Total Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 2.3: Number Theory

#### Unit-I (15 hrs.)

Division algorithm, Lame's theorem, linear Diophantine equation, fundamental theorem of arithmetic, prime counting function, statement of prime number theorem, Goldbach conjecture.

#### Unit-II (15 hrs.)

Binary and decimal representation of integers, linear congruences, complete set of residues.

#### Unit-III (15 hrs.)

Number theoretic functions, sum and number of divisors, totally multiplicative functions.

#### Unit-IV (15 hrs.)

Definition and properties of the Dirichlet product, the Möbius inversion formula, the greatest integer function, Euler's phi-function.

**Books Recommended:**

1. David M. Burton, *Elementary Number Theory* 6th Ed., Tata McGraw-Hill Edition, Indian reprint, 2007.
2. Richard E. Klima, Neil Sigmon, Ernest Stitzinger, *Applications of Abstract Algebra with Maple*, CRC Press, Boca Raton, 2000.
3. Neville Robinns, *Beginning Number Theory*, 2nd Ed., Narosa Publishing House Pvt. Limited, Delhi, 2007.

## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Fifth Semester

Course Code	MATH504TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Probability and Statistics
Type of the Course	Skill Enhancement Course
Number of hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(2), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
Semester Term End Examination	Max Marks: 70 Maximum Times: 3 hrs.
Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 3.1: Probability and Statistics

#### Unit-I (15 hrs.)

Sample space, probability axioms, real random variables (discrete and continuous), cumulative distribution function, probability mass/density functions.

#### Unit-II (15 hrs.)

Mathematical expectation, moments, moment generating function, characteristic function, discrete distributions: uniform.

#### Unit-III (15 hrs.)

Binomial, Poisson, continuous distributions: uniform, normal, exponential.

#### Unit-IV (15 hrs.)

Joint cumulative distribution function and its properties, joint probability density functions, marginal and conditional distributions, expectation of function of two random variables, conditional expectations, independent random variables.

**Books Recommended:**

1. Robert V. Hogg, Joseph W. McKean and Allen T. Craig, *Introduction to Mathematical Statistics*, Pearson Education, Asia, 2007.
2. Irwin Miller and Marylees Miller, John E. Freund, *Mathematical Statistics with Application*, 7th Ed., Pearson Education, Asia, 2006.
3. Sheldon Ross, *Introduction to Probability Model*, 9th Ed., Academic Press, Indian Reprint, 2007.

## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Fifth Semester

Course Code	MATH505TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Mathematical Finance
Type of the Course	Skill Enhancement Course
Number of hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(2), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
Semester Term End Examination	Max Marks: 70 Maximum Times: 3 hrs.
Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 3.2: Mathematical Finance

#### Unit-I (15 hrs.)

Basic principles: Comparison, arbitrage and risk aversion, Interest (simple and compound, discrete and continuous), time value of money.

#### Unit-II (15 hrs.)

Inflation, net present value, internal rate of return (calculation by bisection and Newton-Raphson methods), comparison of NPV and IRR.

#### Unit-III (15 hrs.)

Bonds, bond prices and yields. Floating-rate bonds, immunization.

Asset return, short selling, portfolio return, (brief introduction to expectation, variance, covariance and correlation).

#### Unit-IV (15 hrs.)

Random returns, portfolio mean return and variance, diversification, portfolio diagram, feasible set, Markowitz model (review of Lagrange multipliers for 1 and 2 constraints).

**Books Recommended:**

1. David G. Luenberger, *Investment Science*, Oxford University Press, Delhi, 1998.
2. John C. Hull, Options, *Futures and Other Derivatives*, 6th Ed., Prentice-Hall India, Indian reprint, 2006.
3. Sheldon Ross, *An Elementary Introduction to Mathematical Finance*, 2nd Ed., Cambridge University Press, USA, 2003.

## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Fifth Semester

Course Code	MATH506TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Mathematical Modeling
Type of the Course	Skill Enhancement Course
Number of hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(1), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
Semester Term End Examination	Max Marks: 70 Maximum Times: 3 hrs.
Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 3.3: Mathematical Modeling

#### Unit-I (15 hrs.)

Applications of differential equations: the vibrations of a mass on a spring, mixture problem, free damped motion, forced motion.

#### Unit-II (15 hrs.)

Resonance phenomena, electric circuit problem, mechanics of simultaneous differential equations.

#### Unit-III (15 hrs.)

Applications to Traffic Flow. Vibrating string, vibrating membrane.

#### Unit-IV (15 hrs.)

Conduction of heat in solids, gravitational potential, conservation laws.

**Books Recommended:**

1. Shepley L. Ross, *Differential Equations*, 3rd Ed., John Wiley and Sons, 1984.
2. I. Sneddon, *Elements of Partial Differential Equations*, McGraw-Hill, International Edition, 1967.



## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Sixth Semester

Course Code	MATH604TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Boolean Algebra
Type of the Course	Skill Enhancement Course
Number of hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(1), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
Semester Term End Examination	Max Marks: 70 Maximum Times: 3 hrs.
Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

#### SEC4.1: Boolean Algebra

##### Unit-I (15 hrs.)

Definition, examples and basic properties of ordered sets, maps between ordered sets, duality principle, maximal and minimal elements.

##### Unit-II (15 hrs.)

Lattices as ordered sets, complete lattices, lattices as algebraic structures, sub lattices, products and homomorphisms.

##### Unit-III (15 hrs.)

Definition, examples and properties of modular and distributive lattices, Boolean algebras, Boolean polynomials, minimal forms of Boolean polynomials.

##### Unit-IV (15 hrs.)

Quinn-McCluskey method, Karnaugh diagrams, switching circuits and applications of switching circuits.

**Books Recommended:**

1. B.A.Davey and H.A.Priestley, *Introduction to Lattices and Order*, Cambridge University Press, Cambridge, 1990.
2. Rudolf Lidl and Günter Pilz, *Applied Abstract Algebra*, 2nd Ed., Undergraduate Texts in Mathematics, Springer (SIE), Indian reprint, 2004.

## HIMACHAL PRADESH UNIVERSITY

### B.A./B.Sc. with Mathematics Syllabus and Examination Scheme

#### Sixth Semester

Course Code	MATH605TH
Credits= 4	L-4,T-0,P-0
Name of the Course	Transportation and Game Theory
Type of the Course	Skill Enhancement Course
Number of hours required for this course	60 hrs.
Continuous Comprehensive Assessment: Based on Minor Test(1), Class tests, Assignments, Quiz, Seminar and Attendance (Marks Attendance: 5 marks to be given as per the regulations)	Max. Marks:30
Tutorials : Solving Problems and exercises	Nil
Semester Term End Examination	Max Marks: 70 Maximum Time: 3 hrs.
Lectures to be Delivered (One Hour Each)	60

#### Instructions

**Instructions for paper setter:** The question paper will consist of **two Sections A & B** of 70 marks. **Section A** will be **Compulsory** and will contain 8 questions of 16 marks (each of 2 marks) of short answer type having two questions from each Unit of the syllabus. **Section B** of the question paper shall have four Units I, II, III, and IV. Two questions will be set from each unit of the syllabus and the candidates are required to attempt one question from each of these units. Each question in Units I, II, III and IV shall be of 13.5 marks each.

**Instructions for Candidates:** Candidates are required to attempt five questions in all. Section A is Compulsory and from Section B they are required to attempt one question from each of the Units I, II, III and IV of the question paper.

### SEC 4.2: Transportation and Game Theory

#### Unit-I (15 hrs.)

Transportation problem and its mathematical formulation. northwest-corner method, least cost method.

#### Unit-II (15 hrs.)

Vogel approximation method for determination of starting basic solution, algorithm for solving transportation problem.

#### Unit-III (15 hrs.)

Assignment problem and its mathematical formulation, Hungarian method for solving assignment problem.

#### Unit-IV (15 hrs.)

Game theory: formulation of two person zero sum games, solving two person zero sum games, games with mixed strategies, graphical solution procedure.

#### **Books Recommended:**

1. Mokhtar S. Bazaraa, John J. Jarvis and Hanif D. Sherali, *Linear Programming and Network Flows*, 2nd Ed., John Wiley and Sons, India, 2004.
2. F. S. Hillier and G. J. Lieberman, *Introduction to Operations Research*, 9th Ed., Tata McGraw Hill, Singapore, 2009.
3. Hamdy A. Taha, *Operations Research, An Introduction*, 8th Ed., Prentice-Hall India, 2006.

# Scheme for UG Syllabus (Effective from 2016-17) under

**CHOICE BASED CREDIT SYSTEM (CBCS)**

In

Bachelor of Science Physical Science  
(Physics, Chemistry, Mathematics)



Department of Physics  
Himachal Pradesh University  
Shimla

**Skill Enhancement Course (any four) (Credit: 02 each)- SEC1 to SEC4**

<b>PHYSICS WORKSHOP SKILL</b> <b>(Credits: 04)</b> <b>30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

**Instructions for Paper Setters and Candidates:**

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*The aim of this course is to enable the students to familiar and experience with various mechanical and electrical tools through hands-on mode*

**Introduction:** Measuring units. conversion to SI and CGS. Familiarization with meter scale, Vernier calliper, Screw gauge and their utility. Measure the dimension of a solid block, volume of cylindrical beaker/glass, diameter of a thin wire, thickness of metal sheet, etc. Use of Sextant to measure height of buildings, mountains, etc. **(4 Lectures)**

**Mechanical Skill:** Concept of workshop practice. Overview of manufacturing methods: casting, foundry, machining, forming and welding. Types of welding joints and welding defects. Common materials used for manufacturing like steel, copper, iron, metal sheets, composites and alloy, wood. Concept of machine processing, introduction to common machine tools like lathe, shaper, drilling, milling and surface machines. Cutting tools, lubricating oils. Cutting of a metal sheet using blade. Smoothing of cutting edge of sheet using file. Drilling of holes of different diameter in metal sheet and wooden block. Use of bench vice and tools for fitting. Make funnel using metal sheet. **(10 Lectures)**

**Electrical and Electronic Skill:** Use of Multimeter. Soldering of electrical circuits having discrete components (R, L, C, diode) and ICs on PCB. Operation of oscilloscope. Making regulated power supply. Timer circuit, Electronic switch using transistor and relay. **(10 Lectures)**

**Introduction to prime movers:** Mechanism, gear system, wheel, Fixing of gears with motor axel. Lever mechanism, Lifting of heavy weight using lever. braking systems, pulleys, working principle of power generation systems. Demonstration of pulley experiment. **(6 Lectures)**

**Reference Books:**

- A text book in Electrical Technology - B L Theraja – S. Chand and Company.
- Performance and design of AC machines – M.G. Say, ELBS Edn.
- Mechanical workshop practice, K.C. John, 2010, PHI Learning Pvt. Ltd.
- Workshop Processes, Practices and Materials, Bruce J Black 2005, 3<sup>rd</sup> Edn., Editor Newnes [ISBN: 0750660732]
- New Engineering Technology, Lawrence Smyth/Liam Hennessy, The Educational Company of Ireland [ISBN: 0861674480]

<b>COMPUTATIONAL PHYSICS</b> <b>(Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

#### Instructions for Paper Setters and Candidates:

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*The aim of this course is not just to teach computer programming and numerical analysis but to emphasize its role in solving problems in Physics.*

- Highlights the use of computational methods to solve physical problems
- Use of computer language as a tool in solving physics problems (applications)
- Course will consist of hands on training on the Problem solving on Computers.

**Introduction:** Importance of computers in Physics, paradigm for solving physics problems for solution. Usage of linux as an Editor. **Algorithms and Flowcharts:** Algorithm: Definition, properties and development. Flowchart: Concept of flowchart, symbols, guidelines, types. Examples: Cartesian to Spherical Polar Coordinates, Roots of Quadratic Equation, Sum of two matrices, Sum and Product of a finite series, calculation of  $\sin(x)$  as a series, algorithm for plotting (1) lissajous figures and (2) trajectory of a projectile thrown at an angle with the horizontal. **(4 Lectures)**

**Scientific Programming:** Some fundamental Linux Commands (Internal and External commands). Development of FORTRAN, Basic elements of FORTRAN: Character Set, Constants and their types, Variables and their types, Keywords, Variable Declaration and concept of instruction and program. Operators: Arithmetic, Relational, Logical and Assignment Operators. Expressions: Arithmetic, Relational, Logical, Character and Assignment Expressions. Fortran Statements: I/O Statements (unformatted/formatted), Executable and Non-Executable Statements, Layout of Fortran Program, Format of writing Program and concept of coding, Initialization and Replacement Logic. Examples from physics problems. **(5 Lectures)**

**Control Statements:** Types of Logic (Sequential, Selection, Repetition), Branching Statements (Logical **IF**, Arithmetic IF, Block IF, Nested Block IF, SELECT CASE and ELSE IF Ladder statements), Looping Statements (DO-CONTINUE, DO-ENDDO, DO-WHILE, Implied and Nested DO Loops), Jumping Statements (Unconditional GOTO, Computed GOTO, Assigned GOTO) Subscripted Variables (Arrays: Types of Arrays, DIMENSION Statement, Reading and Writing Arrays), Functions and Subroutines (Arithmetic Statement Function, Function Subprogram and Subroutine), RETURN, CALL, COMMON and EQUIVALENCE Statements), Structure, Disk I/O Statements, open a file, writing in a file, reading from a file. Examples from physics problems.

#### **Programming:**

1. Exercises on syntax on usage of Object oriented C++/FORTRAN

2. Usage of GUI Windows, Linux Commands, familiarity with DOS commands and working in an editor to write source codes in FORTRAN.
3. To print out all natural even/ odd numbers between given limits.
4. To find maximum, minimum and range of a given set of numbers.
5. Calculating Euler number using  $\exp(x)$  series evaluated at  $x=1$  (6 Lectures)

**Scientific word processing: Introduction to LaTeX:** TeX/LaTeX word processor, preparing a basic LaTeX file, Document classes, Preparing an input file for LaTeX, Compiling LaTeX File, LaTeX tags for creating different environments, Defining LaTeX commands and environments, Changing the type style, Symbols from other languages. **Equation representation:** Formulae and equations, Figures and other floating bodies, Lining in columns- Tabbing and tabular environment, Generating table of contents, bibliography and citation, Making an index and glossary, List making environments, Fonts, Picture environment and colors, errors. (6 Lectures)

**Visualization:** Introduction to graphical analysis and its limitations. Introduction to Gnuplot. importance of visualization of computational and computational data, basic Gnuplot commands: simple plots, plotting data from a file, saving and exporting, multiple data sets per file, physics with Gnuplot (equations, building functions, user defined variables and functions), Understanding data with Gnuplot

**Hands on exercises:**

1. To compile a frequency distribution and evaluate mean, standard deviation etc.
2. To evaluate sum of finite series and the area under a curve.
3. To find the product of two matrices
4. To find a set of prime numbers and Fibonacci series.
5. To write program to open a file and generate data for plotting using Gnuplot.
6. Plotting trajectory of a projectile projected horizontally.
7. Plotting trajectory of a projectile projected making an angle with the horizontally.
8. Creating an input Gnuplot file for plotting a data and saving the output for seeing on the screen. Saving it as an eps file and as a pdf file.
9. To find the roots of a quadratic equation.
10. Motion of a projectile using simulation and plot the output for visualization.
11. Numerical solution of equation of motion of simple harmonic oscillator and plot the outputs for visualization.
12. Motion of particle in a central force field and plot the output for visualization.

(9 Lectures)

**Reference Books:**

- Introduction to Numerical Analysis, S.S. Sastry, 5<sup>th</sup> Edn., 2012, PHI Learning Pvt. Ltd.
- Computer Programming in Fortran 77". V. Rajaraman (Publisher:PHI).
- LaTeX–A Document Preparation System", Leslie Lamport (Second Edition, Addison-Wesley, 1994).
- Gnuplot in action: understanding data with graphs, Philip K Janert, (Manning 2010)
- Schaum's Outline of Theory and Problems of Programming with Fortran, S Lipsdutz and A Poe, 1986Mc-Graw Hill Book Co.
- Computational Physics: An Introduction, R. C. Verma, et al. New Age International Publishers, New Delhi(1999)
- A first course in Numerical Methods, U.M. Ascher and C. Greif, 2012, PHI Learning
- Elementary Numerical Analysis, K.E. Atkinson, 3<sup>rd</sup> Edition, 2007, Wiley India Edition.



<b>ELECTRICAL CIRCUITS AND NETWORK SKILLS (Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

**Instructions for Paper Setters and Candidates:**

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*The aim of this course is to enable the students to design and trouble shoots the electrical circuits, networks and appliances through hands-on mode*

**Basic Electricity Principles:** Voltage, Current, Resistance, and Power. Ohm's law. Series, parallel, and series-parallel combinations. AC Electricity and DC Electricity.

Familiarization with multimeter, voltmeter and ammeter. **(3 Lectures)**

**Understanding Electrical Circuits:** Main electric circuit elements and their combination. Rules to analyze DC sourced electrical circuits. Current and voltage drop across the DC circuit elements. Single-phase and three-phase alternating current sources. Rules to analyze AC sourced electrical circuits. Real, imaginary and complex power components of AC source. Power factor. Saving energy and money. **(4 Lectures)**

**Electrical Drawing and Symbols:** Drawing symbols. Blueprints. Reading Schematics. Ladder diagrams. Electrical Schematics. Power circuits. Control circuits. Reading of circuit schematics. Tracking the connections of elements and identify current flow and voltage drop. **(4 Lectures)**

**Generators and Transformers:** DC Power sources. AC/DC generators. Inductance, capacitance, and impedance. Operation of transformers. **(3 Lectures)**

Components in Series or in shunt. Response of inductors and capacitors with DC or AC Overload devices. Ground-fault protection. Grounding and isolating. Phase reversal. Surge protection. Interfacing DC or AC sources to control elements (relay protection device)

**(4 Lectures)**

**Electrical Wiring:** Different types of conductors and cables. Basics of wiring-Star and delta connection. Voltage drop and losses across cables and conductors. Instruments to measure current, voltage, power in DC and AC circuits. Insulation. Solid and stranded cable. Conduit. Cable trays. Splices: wirenuts, crimps, terminal blocks, split bolts, and solder. Preparation of extension board. **(5 Lectures)**

**Reference Books:**

- A text book in Electrical Technology - B L Theraja - S Chand & Co.
- A text book of Electrical Technology - A K Theraja
- Performance and design of AC machines - M G Say ELBS Edn.

<b>BASIC INSTRUMENTATION SKILLS (Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

**Instructions for Paper Setters and Candidates:**

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*This course is to get exposure with various aspects of instruments and their usage through hands-on mode. Experiments listed below are to be done in continuation of the topics.*

**Basic of Measurement:** Instruments accuracy, precision, sensitivity, resolution range etc. Errors in measurements and loading effects. **Multimeter:** Principles of measurement of dc voltage and dc current, ac voltage, ac current and resistance. Specifications of a multimeter and their significance. **(4 Lectures)**

**Electronic Voltmeter:** Advantage over conventional multimeter for voltage measurement with respect to input impedance and sensitivity. Principles of voltage, measurement (block diagram only). Specifications of an electronic Voltmeter/ Multimeter and their significance. **AC millivoltmeter:** Type of AC millivoltmeters: Amplifier- rectifier, and rectifier- amplifier. Block diagram ac millivoltmeter, specifications and their significance. **(4 Lectures)**

**Cathode Ray Oscilloscope:** Block diagram of basic CRO. Construction of CRT, Electron gun, electrostatic focusing and acceleration (Explanation only– no mathematical treatment), brief discussion on screen phosphor, visual persistence & chemical composition. Time base operation, synchronization. Front panel controls. Specifications of a CRO and their significance. **(6 Lectures)**

Use of CRO for the measurement of voltage (dc and ac frequency, time period. Special features of dual trace, introduction to digital oscilloscope, probes. Digital storage Oscilloscope: Block diagram and principle of working. **(3 Lectures)**

**Signal Generators and Analysis Instruments:** Block diagram, explanation and specifications of low frequency signal generators. pulse generator, and function generator. Brief idea for testing, specifications. Distortion factor meter, wave analysis. **(4 Lectures)**

**Impedance Bridges & Q-Meters:** Block diagram of bridge. working principles of basic (balancing type) RLC bridge. Specifications of RLC bridge. Block diagram & working principles of a Q- Meter. Digital LCR bridges. **(3 Lectures)**

**Digital Instruments:** Principle and working of digital meters. Comparison of analog & digital instruments. Characteristics of a digital meter. Working principles of digital voltmeter. **(3 Lectures)**

**Digital Multimeter:** Block diagram and working of a digital multimeter. Working principle of time interval, frequency and period measurement using universal counter/ frequency counter, time- base stability, accuracy and resolution. **(3 Lectures)**

**The test of lab skills will be of the following test items:**

1. Use of an oscilloscope.
2. CRO as a versatile measuring device.
3. Circuit tracing of Laboratory electronic equipment,
4. Use of Digital multimeter/VTVM for measuring voltages
5. Circuit tracing of Laboratory electronic equipment,
6. Winding a coil / transformer.
7. Study the layout of receiver circuit.
8. Trouble shooting a circuit
9. Balancing of bridges

**Laboratory Exercises:**

1. To observe the loading effect of a multimeter while measuring voltage across a low resistance and high resistance.
2. To observe the limitations of a multimeter for measuring high frequency voltage and currents.
3. To measure Q of a coil and its dependence on frequency, using a Q- meter.
4. Measurement of voltage, frequency, time period and phase angle using CRO.
5. Measurement of time period, frequency, average period using universal counter/ frequency counter.
6. Measurement of rise, fall and delay times using a CRO.
7. Measurement of distortion of a RF signal generator using distortion factor meter.
8. Measurement of R, L and C using a LCR bridge/ universal bridge.

**Open Ended Experiments:**

1. Using a Dual Trace Oscilloscope
2. Converting the range of a given measuring instrument (voltmeter, ammeter)

**Reference Books:**

- A text book in Electrical Technology - B L Theraja - S Chand and Co.
- Performance and design of AC machines - M G Say ELBS Edn.
- Digital Circuits and systems, Venugopal, 2011, Tata McGraw Hill.
- Logic circuit design, Shimon P. Vingron, 2012, Springer.
- Digital Electronics, Subrata Ghoshal, 2012, Cengage Learning.
- Electronic Devices and circuits, S. Salivahanan & N. S.Kumar, 3<sup>rd</sup> Ed., 2012, Tata McGraw Hill
- Electronic circuits: Handbook of design and applications, U.Tietze, Ch.Schenk, 2008, Springer
- Electronic Devices, 7/e Thomas L. Floyd, 2008, Pearson India

<b>RENEWABLE ENERGY AND ENERGY HARVESTING (Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

### Instructions for Paper Setters and Candidates:

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*The aim of this course is not just to impart theoretical knowledge to the students but to provide them with exposure and hands-on learning wherever possible*

**Fossil fuels and Alternate Sources of energy:** Fossil fuels and Nuclear Energy, their limitation, need of renewable energy, non-conventional energy sources. An overview of developments in Offshore Wind Energy, Tidal Energy, Wave energy systems, Ocean Thermal Energy Conversion, solar energy, biomass, biochemical conversion, biogas generation, geothermal energy tidal energy, Hydroelectricity. **(3 Lectures)**

**Solar energy:** Solar energy, its importance, storage of solar energy, solar pond, non convective solar pond, applications of solar pond and solar energy, solar water heater, flat plate collector, solar distillation, solar cooker, solar green houses, solar cell, absorption air conditioning. Need and characteristics of photovoltaic (PV) systems, PV models and equivalent circuits, and sun tracking systems. **(6 Lectures)**

**Wind Energy harvesting:** Fundamentals of Wind energy, Wind Turbines and different electrical machines in wind turbines, Power electronic interfaces, and grid interconnection topologies. **(3 Lectures)**

**Ocean Energy:** Ocean Energy Potential against Wind and Solar, Wave Characteristics and Statistics, Wave Energy Devices. **(3 Lectures)**

Tide characteristics and Statistics, Tide Energy Technologies, Ocean Thermal Energy, Osmotic Power, Ocean Bio-mass. **(2 Lectures)**

**Geothermal Energy:** Geothermal Resources, Geothermal Technologies. **(2 Lectures)**

**Hydro Energy:** Hydropower resources, hydropower technologies, environmental impact of hydro power sources. **(2 Lectures)**

**Piezoelectric Energy harvesting:** Introduction, Physics and characteristics of piezoelectric effect, materials and mathematical description of piezoelectricity, Piezoelectric parameters and modeling piezoelectric generators, Piezoelectric energy harvesting applications, Human power **(4 Lectures)**

**Electromagnetic Energy Harvesting:** Linear generators, physics mathematical models, recent applications **(2 Lectures)**

Carbon captured technologies, cell, batteries, power consumption **(2 Lectures)**

Environmental issues and Renewable sources of energy, sustainability. **(1 Lecture)**

### Demonstrations and Experiments

1. Demonstration of Training modules on Solar energy, wind energy, etc.
2. Conversion of vibration to voltage using piezoelectric materials

3. Conversion of thermal energy into voltage using thermoelectric modules.

**Reference Books:**

- Non-conventional energy sources - G.D Rai - Khanna Publishers, New Delhi
- Solar energy - M P Agarwal - S Chand and Co. Ltd.
- Solar energy - Suhas P Sukhative Tata McGraw - Hill Publishing Company Ltd.
- Godfrey Boyle, "Renewable Energy, Power for a sustainable future", 2004, Oxford University Press, in association with The Open University.
- Dr. P Jayakumar, Solar Energy: Resource Assessment Handbook, 2009
- J.Balfour, M.Shaw and S. Jarosek, Photovoltaics, Lawrence J Goodrich (USA).
- [http://en.wikipedia.org/wiki/Renewable\\_energy](http://en.wikipedia.org/wiki/Renewable_energy)

<b>TECHNICAL DRAWING (Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

**Instructions for Paper Setters and Candidates:**

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

**Introduction:** Drafting Instruments and their uses. lettering: construction and uses of various scales: dimensioning as per I.S.I. 696-1972. Engineering Curves: Parabola: hyperbola: ellipse: cycloids, involute: spiral: helix and loci of points of simple moving mechanism. 2D geometrical construction. Representation of 3D objects. Principles of projections.

**(4 Lectures)**

**Projections:** Straight lines, planes and solids. Development of surfaces of right and oblique solids. Section of solids.

**(6 Lectures)**

**Object Projections:** Orthographic projection. Interpenetration and intersection of solids. Isometric and oblique parallel projection of solids.

**(4 Lectures)**

**CAD Drawing:** Introduction to CAD and Auto CAD, precision drawing and drawing aids, Geometric shapes, Demonstrating CAD- specific skills (graphical user interface. Create, retrieve, edit, and use symbol libraries. Use inquiry commands to extract drawing data). Control entity properties. Demonstrating basic skills to produce 2-D and 3-D drawings. 3D modeling with Auto CAD (surfaces and solids), 3D modeling with sketch up, annotating in Auto CAD with text and hatching, layers, templates & design center, advanced plotting (layouts, viewports), office standards, dimensioning, internet and collaboration, Blocks, Drafting symbols, attributes, extracting data. basic printing, editing tools, Plot/Print drawing to appropriate scale.

**(16 Lectures)**

**Reference Books:**

- K. Venugopal, and V. Raja Prabhu. Engineering Graphic, New Age International
- AutoCAD 2014 & AutoCAD 2014/Donnie Gladfelter/Sybex/ISBN:978-1-118-57510-9
- Architectural Design with Sketchup/Alexander Schreyer/John Wiley & Sons/ISBN: 978-1-118-12309-6

<b>Radiation Safety</b> <b>Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

**Instructions for Paper Setters and Candidates:**

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*The aim of this course is for awareness and understanding regarding radiation hazards and safety. The list of laboratory skills and experiments listed below the course are to be done in continuation of the topics*

**Basics of Atomic and Nuclear Physics:** Basic concept of atomic structure; X rays characteristic and production; concept of bremsstrahlung and auger electron, The composition of nucleus and its properties, mass number, isotopes of element, spin, binding energy, stable and unstable isotopes, law of radioactive decay, Mean life and half life, basic concept of alpha, beta and gamma decay, concept of cross section and kinematics of nuclear reactions, types of nuclear reaction, Fusion, fission. **(6 Lectures)**

**Interaction of Radiation with matter: Types of Radiation:** Alpha, Beta, Gamma and Neutron and their sources, sealed and unsealed sources, **Interaction of Photons** - Photo-electric effect, Compton Scattering, Pair Production, Linear and Mass Attenuation Coefficients, **Interaction of Charged Particles:** Heavy charged particles - Beth-Bloch Formula, Scaling laws, Mass Stopping Power, Range, Straggling, Channeling and Cherenkov radiation. Beta Particles- Collision and Radiation loss (Bremsstrahlung), **Interaction of Neutrons-** Collision, slowing down and Moderation. **(7 Lectures)**

**Radiation detection and monitoring devices: Radiation Quantities and Units:** Basic idea of different units of activity, KERMA, exposure, absorbed dose, equivalent dose, effective dose, collective equivalent dose, Annual Limit of Intake (ALI) and derived Air Concentration (DAC). **Radiation detection:** Basic concept and working principle of *gas detectors* (Ionization Chambers, Proportional Counter, Multi-Wire Proportional Counters (MWPC) and Gieger Muller Counter), *Scintillation Detectors* (Inorganic and Organic Scintillators), *Solid States Detectors* and *Neutron Detectors*, *Thermo luminescent Dosimetry*. **(7 Lectures)**

**Radiation safety management:** *Biological effects of ionizing radiation*, Operational limits and basics of radiation hazards evaluation and control: radiation protection standards, International

Commission on Radiological Protection (ICRP) principles, justification, optimization, limitation, introduction of safety and risk management of radiation. Nuclear waste and disposal management. Brief idea about Accelerator driven Sub-critical system (ADS) for waste management. **(5 Lectures)**

**Application of nuclear techniques:** Application in medical science (e.g., MRI, PET, Projection Imaging Gamma Camera, radiation therapy), Archaeology, Art, Crime detection, Mining and oil. *Industrial Uses:* Tracing, Gauging, Material Modification, Sterization, Food preservation. **(5 Lectures)**

**Experiments:**

1. Study the background radiation levels using Radiation meter

**Characteristics of Geiger Muller (GM) Counter:**

- 2) Study of characteristics of GM tube and determination of operating voltage and plateau length using background radiation as source (without commercial source).
- 3) Study of counting statistics using background radiation using GM counter.
- 4) Study of radiation in various materials (e.g. K<sub>2</sub>SO<sub>4</sub> etc.). Investigation of possible radiation in different routine materials by operating GM at operating voltage.
- 5) Study of absorption of beta particles in Aluminum using GM counter.
- 6) Detection of particles of fusing reference source & determining its half life using spark counter
- 7) Gamma spectrum of Gas Light mantle (Source of Thorium)

**Reference Books:**

1. W.E. Burcham and M. Jobes – Nuclear and Particle Physics – Longman (1995)
2. G.F. Knoll, Radiation detection and measurements
3. Thermoluminescence Dosimetry, Mcknlay, A.F., Bristol, Adam Hilger (Medical Physics Handbook 5)
4. W.J. Meredith and J.B. Massey, “Fundamental Physics of Radiology”. John Wright and Sons, UK, 1989.
5. J.R. Greening, “Fundamentals of Radiation Dosimetry”, Medical Physics Hand Book Series, No.6, Adam Hilger Ltd., Bristol 1981.
6. Practical Applications of Radioactivity and Nuclear Radiations, G.C. Lowenthal and P.L. Airey, Cambridge University Press, U.K., 2001
7. A. Martin and S.A. Harbisor, An Introduction to Radiation Protection, John Willey & Sons, Inc. New York, 1981.
8. NCRP, ICRP, ICRU, IAEA, AERB Publications.
9. W.R. Hendee, “Medical Radiation Physics”, Year Book – Medical Publishers Inc. London, 1981

<b>Applied Optics</b> <b>(Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

**Instructions for Paper Setters and Candidates:**

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*Theory includes only qualitative explanation. Minimum five experiments should be performed covering minimum three sections.*

<p><b>(i) Sources and Detectors (9 Periods)</b>  Lasers, Spontaneous and stimulated emissions, Theory of laser action, Einstein's coefficients, Light amplification, Characterization of laser beam, He-Ne laser, Semiconductor lasers.</p> <p><b>Experiments on Lasers:</b></p> <p>a. Determination of the grating radial spacing of the Compact Disc (CD) by reflection using He-Ne or solid state laser.</p> <p>b. To find the width of the wire or width of the slit using diffraction pattern obtained by a He-Ne or solid state laser.</p> <p>c. To find the polarization angle of laser light using polarizer and analyzer</p> <p>d. Thermal expansion of quartz using laser</p> <p><b>Experiments on Semiconductor Sources and Detectors:</b></p> <p>a. V-I characteristics of LED</p> <p>b. Study the characteristics of solid state laser</p> <p>c. Study the characteristics of LDR</p> <p>d. Photovoltaic Cell</p> <p>e. Characteristics of IR sensor</p>
---



<p><b>(ii) Fourier Optics (6 Periods)</b></p> <p>Concept of Spatial frequency filtering, Fourier transforming property of a thin lens</p> <p><b>Experiments on Fourier Optics:</b></p> <p><b>a. Fourier optic and image processing</b></p> <ol style="list-style-type: none"> <li>Optical image addition/subtraction</li> <li>Optical image differentiation</li> <li>Fourier optical filtering</li> <li>Construction of an optical 4f system</li> </ol> <p><b>b. Fourier Transform Spectroscopy</b></p> <p>Fourier Transform Spectroscopy (FTS) is a powerful method for measuring emission and absorption spectra, with wide application in atmospheric remote sensing, NMR spectrometry and forensic science.</p> <p><b>Experiment:</b></p> <p>To study the interference pattern from a Michelson interferometer as a function of mirror separation in the interferometer. The resulting interferogram is the Fourier transform of the power spectrum of the source. Analysis of experimental interferograms allows one to determine the transmission characteristics of several interference filters. Computer simulation can also be done.</p>	<p><b>(iii) Holography (6 Periods)</b></p> <p>Basic principle and theory: coherence, resolution, Types of holograms, white light reflection hologram, application of holography in microscopy, interferometry, and character recognition</p> <p><b>Experiments on Holography and interferometry:</b></p> <ol style="list-style-type: none"> <li>Recording and reconstructing holograms</li> <li>Constructing a Michelson interferometer or a Fabry Perot interferometer</li> <li>Measuring the refractive index of air</li> <li>Constructing a Sagnac interferometer</li> <li>Constructing a Mach-Zehnder interferometer</li> <li>White light Hologram</li> </ol>
<p><b>(iv) Photonics: Fibre Optics (9 Periods)</b></p> <p>Optical fibres and their properties, Principal of light propagation through a fibre, The numerical aperture, Attenuation in optical fibre and attenuation limit, Single mode and multimode fibres, Fibre optic sensors: Fibre Bragg Grating</p> <p><b>Experiments on Photonics: Fibre Optics</b></p> <ol style="list-style-type: none"> <li>To measure the numerical aperture of an optical fibre</li> <li>To study the variation of the bending loss in a multimode fibre</li> <li>To determine the mode field diameter (MFD) of fundamental mode in a single-mode fibre by measurements of its far field Gaussian pattern</li> <li>To measure the near field intensity profile of a fibre and study its refractive index profile</li> <li>To determine the power loss at a splice between two multimode fibre</li> </ol> <p><b>Reference Books:</b></p> <ul style="list-style-type: none"> <li>Fundamental of optics, F. A. Jenkins &amp; H. E. White, 1981, Tata McGraw hill.</li> </ul>	

- LASERS: Fundamentals & applications, K.Thyagrajan & A.K.Ghatak, 2010, Tata McGraw Hill
- Fibre optics through experiments, M.R.Shenoy, S.K.Khijwania, et.al. 2009, Viva Books
- Nonlinear Optics, Robert W. Boyd, (Chapter-I), 2008, Elsevier.
- Optics, Karl Dieter Moller, Learning by computing with model examples, 2007, Springer.
- Optical Systems and Processes, Joseph Shamir, 2009, PHI Learning Pvt. Ltd.
- Optoelectronic Devices and Systems, S.C. Gupta, 2005, PHI Learning Pvt. Ltd.
- Optical Physics, A.Lipson, S.G.Lipson, H.Lipson, 4<sup>th</sup> Edn., 1996, Cambridge Univ. Press

<b>Weather Forecasting</b> <b>(Credits: 04)</b> <b>Theory: 30 Lectures</b>	<b>Maximum Marks: 100</b> <b>Theory Exam: 50</b> <b>Skill Exam: 50</b>
<b>Maintain project file or Dissertation to check Analytic skill/problem solving in skill exam</b>	

**Instructions for Paper Setters and Candidates:**

1. Examiner will set seven questions in all covering the entire syllabus each of 10 marks ,
2. The candidate will be required to attempt five questions in all . The duration of the examination will be 3 hours.

*The aim of this course is not just to impart theoretical knowledge to the students but to enable them to develop an awareness and understanding regarding the causes and effects of different weather phenomenon and basic forecasting techniques*

**Introduction to atmosphere:** Elementary idea of atmosphere: physical structure and composition; compositional layering of the atmosphere; variation of pressure and

**Measuring the weather:** Wind; forces acting to produce wind; wind speed direction: units, its direction; measuring wind speed and direction; humidity, clouds and rainfall, radiation: absorption, emission and scattering in atmosphere; radiation laws. **(4 Periods)**

**Weather systems:** Global wind systems; air masses and fronts: classifications; jet streams; local thunderstorms; tropical cyclones: classification; tornadoes; hurricanes.

**(3 Periods)**

**Climate and Climate Change:** Climate: its classification; causes of climate change; global warming and its outcomes; air pollution; aerosols, ozone depletion, acid rain, environmental issues related to climate. **(6 Periods)**

**Basics of weather forecasting:** Weather forecasting: analysis and its historical background; need of measuring weather; types of weather forecasting; weather forecasting methods; criteria of choosing weather station; basics of choosing site and exposure; satellites observations in weather forecasting; weather maps; uncertainty and predictability; probability forecasts. **(8 Periods)**

**Demonstrations and Experiments:**

1. Study of synoptic charts & weather reports, working principle of weather station.
2. Processing and analysis of weather data:
  - (a) To calculate the sunniest time of the year.

- (b) To study the variation of rainfall amount and intensity by wind direction.
  - (c) To observe the sunniest/driest day of the week.
  - (d) To examine the maximum and minimum temperature throughout the year.
  - (e) To evaluate the relative humidity of the day.
  - (f) To examine the rainfall amount month wise.
3. Exercises in chart reading: Plotting of constant pressure charts, surfaces charts, upper wind charts and its analysis.
  4. Formats and elements in different types of weather forecasts/ warning (both aviation and non aviation)

**Reference books:**

1. Aviation Meteorology, I.C. Joshi, 3<sup>rd</sup> edition 2014, Himalayan Books
  2. The weather Observers Hand book, Stephen Burt, 2012, Cambridge University Press.
  3. Meteorology, S.R. Ghadekar, 2001, Agromet Publishers, Nagpur.
  4. Text Book of Agrometeorology, S.R. Ghadekar, 2005, Agromet Publishers, Nagpur.
  5. Why the weather, Charls Franklin Brooks, 1924, Chpraman & Hall, London.
  6. Atmosphere and Ocean, John G. Harvey, 1995, The Artemis Press.
-

**H.P. University, Summerhill, Shimla**

**Structure and Syllabus**

**of**

**ZOOLOGY**

**for**

**B.Sc. Undergraduate Programme**

**Based on:**

**U.G.C. Choice Based Credit System**

**(CBCS) Annual Pattern UG Courses**

**Model Curriculum**

**(Effective from Academic Session July, 2018 onwards)**

## SUGGESTED READINGS

- Austin, C.R. and Short, R.V. reproduction in Mammals. Cambridge University Press. □
- Degroot, L.J. and Jameson, J.L. (eds). Endocrinology. W.B. Saunders and Company. □
- Knobil, E. et al. (eds). The Physiology of Reproduction. Raven Press Ltd. □
- Hatcher, R.A. et al. The Essentials of Contraceptive Technology. Population Information Programme. □

## SKILL ENHANCEMENT COURSES

### SEC 1

#### MEDICAL DIAGNOSTICS

Code: ZOOL 203 TH

#### **THEORY** (Credits 4)

**Unit 1: Introduction to Medical Diagnostics and its Importance** 2

**Unit 2: Diagnostics Methods Used for Analysis of Blood** 15

Blood composition, Preparation of blood smear and Differential Leucocyte Count (D.L.C) using Leishman's stain, Platelet count using haemocytometer, Erythrocyte Sedimentary Rate (E.S.R), Packed Cell Volume (P.C.V.)

**Unit 3: Diagnostic Methods Used for Urine Analysis** 6

Urine Analysis: Physical characteristics; Abnormal constituents

**Unit 4:Non -infectious Diseases** 10

Causes, types, symptoms, complications, diagnosis and prevention of Diabetes (Type I and Type II), Hypertension (Primary and secondary), Testing of blood glucose using Glucometer/Kit

**Unit 5: Infectious Diseases** 6

Causes, types, symptoms, diagnosis and prevention of Tuberculosis and Hepatitis

**Unit 6: Tumours** 6

Types (Benign/Malignant), Detection and metastasis; Medical imaging: X-Ray of Bone fracture, PET, MRI and CT Scan (using photographs).

## SUGGESTED READINGS

- Park, K. (2007), *Preventive and Social Medicine*, B.B. Publishers □
- Godkar P.B. and Godkar D.P. *Textbook of Medical Laboratory Technology*, II □ Edition, Bhalani Publishing House □
- Cheesbrough M., *A Laboratory Manual for Rural Tropical Hospitals, A Basis for □ Training Courses* □
- Guyton A.C. and Hall J.E. *Textbook of Medical Physiology*, Saunders □
- Robbins and Cortan, *Pathologic Basis of Disease*, VIII Edition, Saunders □
- Prakash, G. (2012), *Lab Manual on Blood Analysis and Medical Diagnostics*, S. Chand and Co. Ltd. □

### Tutorial – 01 Credit

## SEC-II APICULTURE ZOOL 204 TH

(CREDIT 4)

### Unit 1: Biology of Bees (10)

History, Classification and Biology of Honey Bees  
Social Organization of Bee Colony

### Unit 2: Rearing of Bees (15)

Artificial Bee rearing (Apiary), Beehives – Newton and Langstroth  
Bee Pasturage  
Selection of Bee Species for Apiculture  
Bee Keeping Equipment  
Methods of Extraction of Honey (Indigenous and Modern)

### Unit 3: Diseases and Enemies (8)

Bee Diseases and Enemies  
Control and Preventive measures

### Unit 4: Bee Economy (6)

Products of Apiculture Industry and its Uses (Honey, Bees Wax, Propolis), Pollen Etc

### Unit 5: Entrepreneurship in Apiculture (6)

Bee Keeping Industry – Recent Efforts, Modern Methods in employing artificial  
Beehives for cross pollination in horticultural gardens

**H.P. University, Summerhill, Shimla**

**Structure and Syllabus**

**of**

**Zoology**

**for**

**B.Sc. Undergraduate Programme**

**Based on:**

**U.G.C. Choice Based Credit System (CBCS)  
Model Curriculum**

**(Effective from academic session July, 2016)**

# SKILL ENHANCEMENT COURSES

## SEC 1 MEDICAL DIAGNOSTICS

Code: ZOOL 302 TH

<b>THEORY</b>	<b>(Credits 4) (3+01)</b>
<b>Unit 1: Introduction to Medical Diagnostics and its Importance</b>	<b>2</b>
<b>Unit 2: Diagnostics Methods Used for Analysis of Blood</b> Blood composition, Preparation of blood smear and Differential Leucocyte Count (D.L.C) using Leishman's stain, Platelet count using haemocytometer, Erythrocyte Sedimentary Rate (E.S.R), Packed Cell Volume (P.C.V.)	<b>15</b>
<b>Unit 3: Diagnostic Methods Used for Urine Analysis</b> Urine Analysis: Physical characteristics; Abnormal constituents	<b>6</b>
<b>Unit 4: Non-infectious Diseases</b> Causes, types, symptoms, complications, diagnosis and prevention of Diabetes (Type I and Type II), Hypertension (Primary and secondary), Testing of blood glucose using Glucometer/Kit	<b>10</b>
<b>Unit 5: Infectious Diseases</b> Causes, types, symptoms, diagnosis and prevention of Tuberculosis and Hepatitis	<b>6</b>
<b>Unit 6: Tumours</b> Types (Benign/Malignant), Detection and metastasis; Medical imaging: X-Ray of Bone fracture, PET, MRI and CT Scan (using photographs).	<b>6</b>

### SUGGESTED READINGS

- Park, K. (2007), *Preventive and Social Medicine*, B.B. Publishers
- Godkar P.B. and Godkar D.P. *Textbook of Medical Laboratory Technology*, II Edition, Bhalani Publishing House
- Cheesbrough M., *A Laboratory Manual for Rural Tropical Hospitals, A Basis for Training Courses*
- Guyton A.C. and Hall J.E. *Textbook of Medical Physiology*, Saunders
- Robbins and Cortan, *Pathologic Basis of Disease*, VIII Edition, Saunders
- Prakash, G. (2012), *Lab Manual on Blood Analysis and Medical Diagnostics*, S. Chand and Co. Ltd.

**Tutorial – 01 Credit**



**SEC 2**  
**APICULTURE**  
**ZOOL 402 TH**

**(CREDIT 4)**  
**(3+01)**

<b>Unit 1: Biology of Bees</b>	<b>(10)</b>
History, Classification and Biology of Honey Bees	
Social Organization of Bee Colony	
<b>Unit 2: Rearing of Bees</b>	<b>(15)</b>
Artificial Bee rearing (Apiary), Beehives – Newton and Langstroth	
Bee Pasturage	
Selection of Bee Species for Apiculture	
Bee Keeping Equipment	
Methods of Extraction of Honey (Indigenous and Modern)	
<b>Unit 3: Diseases and Enemies</b>	<b>(8)</b>
Bee Diseases and Enemies	
Control and Preventive measures	
<b>Unit 4: Bee Economy</b>	<b>(6)</b>
Products of Apiculture Industry and its Uses (Honey, Bees Wax, Propolis), Pollen	
Etc	
<b>Unit 5: Entrepreneurship in Apiculture</b>	<b>(6)</b>
Bee Keeping Industry – Recent Efforts, Modern Methods in employing artificial	
Beehives for cross pollination in horticultural gardens	

**SUGGESTED READINGS**

- Prost, P. J. (1962). *Apiculture*. Oxford and IBH, New Delhi.
- Bisht D.S., *Apiculture*, ICAR Publication.

**Tutorial – 01 Credit**

### SEC - 3

#### SERICULTURE Code: ZOOL 502 TH

(CREDITS 4)

#### **Unit 1: Introduction (8)**

Sericulture: Definition, history and present status; Silk route

Types of silkworms, Distribution and Races

Exotic and indigenous races

Mulberry and non-mulberry Sericulture

#### **Unit 2: Biology of Silkworm (6)**

Life cycle of *Bombyx mori*

Structure of silk gland and secretion of silk

#### **Unit 3: Rearing of Silkworms (15)**

Selection of mulberry variety and establishment of mulberry garden

Rearing house and rearing appliances

Disinfectants: Formalin, bleaching powder, RKO

Silkworm rearing technology: Early age and Late age rearing

Types of mountages

Spinning, harvesting and storage of cocoons

#### **Unit 4: Pests and Diseases (10)**

Pests of silkworm: Uzi fly, dermestid beetles and vertebrates

Pathogenesis of silkworm diseases: Protozoan, viral, fungal and bacterial

Control and prevention of pests and diseases

#### **Unit 5: Entrepreneurship in Sericulture (6)**

Prospectus of Sericulture in India: Sericulture industry in different states, employment, potential in mulberry and non-mulberry sericulture. Visit to various sericulture centres.

#### **SUGGESTED READINGS**

- Handbook of Practical Sericulture: S.R. Ullal and M.N. Narasimhanna CSB, Bangalore
- Appropriate Sericultural Techniques; Ed. M. S. Jolly, Director, CSR & TI, Mysore.
- Handbook of Silkworm Rearing: Agriculture and Technical Manual-1, Fuzi Pub. Co. Ltd., Tokyo, Japan 1972.
- Manual of Silkworm Egg Production; M. N. Narasimhanna, CSB, Bangalore 1988.
- Silkworm Rearing; Wupang—Chun and Chen Da-Chung, Pub. By FAO, Rome 1988.
- A Guide for Bivoltine Sericulture; K. Sengupta, Director, CSR & TI, Mysore 1989.
- Improved Method of Rearing Young age silkworm; S. Krishnaswamy, reprinted CSB, Bangalore, 1986.

#### **Tutorial – 01 Credit**

## SEC – 4

### AQUARIUM FISH KEEPING

Code: ZOOL 602 (A) TH

(CREDITS 4)

(3+01)

#### **Unit1: Introduction to Aquarium Fish Keeping**

**10**

The potential scope of Aquarium Fish Industry as a Cottage Industry, Exotic and Endemic species of Aquarium Fishes

#### **Unit 2: Biology of Aquarium Fishes**

**15**

Common characters and sexual dimorphism of Fresh water and Marine Aquariumfishes such as Guppy, Molly, Sword tail, Gold fish, Angel fish, Blue morph, Anemone fish and Butterfly fish

#### **Unit 3: Food and feeding of Aquarium fishes**

**6**

Use of live fish feed organisms. Preparation and composition of formulated fish feeds

#### **Unit 4: Fish Transportation**

**8**

Live fish transport - Fish handling, packing and forwarding techniques.

#### **Unit 5: Maintenance of Aquarium**

**6**

General Aquarium maintenance – budget for setting up an Aquarium Fish Farm as a Cottage Industry

### **SUGGESTED READINGS**

- Mary Bailey, Gina Sandford; *The Complete Guide to Aquarium Fish Keeping (Practical Handbook)* Publishers: Lorenz Books
- Mills, Dick; *Keeping Aquarium Fish (Teach Yourself General)* Publisher : Teach Yourself

**Tutorial – 01 Credit**

## SEC - 5

### RESEARCH METHODOLOGY

Code: ZOOL 602 (B) TH

(CREDITS 4)  
(3+01)

#### Unit 1: Foundations of Research

8

Meaning, Objectives, Motivation: Research Methods vs Methodology, Types of Research: Analytical vs Descriptive, Quantitative vs Qualitative, Basic vs Applied

#### Unit 2: Research Design

15

Need for research design: Features of good design, Important concepts related to good design- Observation and Facts, Prediction and Explanation, Development of Models. Developing a research plan: Problem identification, Experimentation, Determining experimental and sample designs

#### Unit 3: Data Collection, Analysis and Report Writing

15

Observation and Collection of Data-Methods of data collection- Sampling Methods, Data Processing and Analysis Strategies, Technical Reports and Thesis writing, Preparation of Tables and Bibliography. Data Presentation using digital technology

#### Unit 4: Ethical Issues

7

Intellectual property Rights, Commercialization, Copy Right, Royalty, Patent law, Plagiarism, Citation, Acknowledgement

### SUGGESTED READINGS

- Anthony, M, Graziano, A.M. and Raulin, M.L. 2009. Research Methods: A Process of Inquiry, Allyn and Bacon.
- Walliman, N. 2011. Research Methods- The Basics. Taylor and Francis, London, New York.
- Wadhera, B.L.: Law Relating to Patents, Trade Marks, Copyright Designs and Geographical Indications, 2002, Universal Law publishing
- C.R.Kothari: Research Methodology, New Age International, 2009
- Coley, S.M. and Scheinberg, C.A. 1990, "Proposal writing". Stage Publications.

#### Tutorial – 01 Credit

**END SEMESTER EXAMINATION (ESE) OF ZOOLOGY IN B.Sc. PROGRAMME**  
**THEORY EXAMINATION**

**SCHEME OF EXAMINATION**

1. English shall be the medium of instruction and examination.
  2. Examinations shall be conducted at the end of each semester as per the Academic Calendar notified by Himachal Pradesh University.
  3. Each course will carry **100 marks** and will have following components
- |   |  |                               |
|---|--|-------------------------------|
| <b>1.</b>   | <b>Theory Paper End-Semester examination</b> | <b>50 marks</b>               |
| <b>2.</b>   | <b>Practicals</b>                            | <b>30 marks</b>               |
| <b>3.</b>   | <b>Internal Assessment</b>                   | <b>20 Marks</b>               |
| <b>Theory Paper + Practical + Internal Assessment</b> |  | <b>(50+30+ 20) =100 marks</b> |

**Scheme of Examination for every course (Core Course, Discipline Specific Elective Course, Generic Elective Course):**

End Semester Examination	50 marks	Time 3 hrs
Practical for every course	30 marks	Time 3 hrs
Internal Assessment	20 Marks	

**Skill Enhancement Course & Ability Enhancement Compulsory Course:**

Theory Paper End Semester Examination	100 marks
---------------------------------------	-----------

**Department of Journalism and Mass Communication  
Himachal Pradesh University, Shimla – 5**

**Structure, norms and Syllabus for:**

- **B.A. (Pass) Programme with Journalism and Mass Communication**
- **B.A. (Honours) Journalism and Mass Communication**
- **Generic Elective Courses in Journalism and Mass Communication**

**(w.e.f. Academic session 2018-19)**

**Approved by the Under-Graduate Board of Studies  
in Journalism and Mass Communication on 27<sup>th</sup> June 2018**

**Contents**

List of abbreviations.....	iii
I. Norms, programme structure and curriculum for B.A. (Honours) Journalism and Mass Communication and B.A. (Pass) with Journalism and Mass Communication .....	1
II. B.A. (Honours) Journalism and Mass Communication – List of Courses .....	3
III. B.A. (Pass) Programme with Journalism and Mass Communication – List of Courses.....	4
IV. List of Generic Elective Courses in Journalism and Mass Communication.....	4
V. B.A. (Hons.) Journalism and Mass Communication – Annual Structure.....	5
VI. B.A. (Pass) Programme with Journalism and Mass Communication – Annual Structure .....	6
VII. Courses for B.A. (Honours) Journalism and Mass Communication .....	7
1. Introduction to Journalism .....	8
2. Introduction to Media and Communication .....	10
3. Reporting and Editing for Print .....	12
4. Media and Cultural Studies.....	15
5. Introduction to Broadcast Media.....	18
6. History of the Media .....	20
7. Advertising and Public Relations.....	23
8. Introduction to New Media .....	26
9. Development Communication.....	29
10. Media Ethics and the Law .....	32
11. Global Media and Politics.....	35

**Instructions for candidates:**

Maximum time allowed for answering the question paper is 3 hours. While answering, the candidates should strictly adhere to the word limit and use examples wherever possible.

**Course Components:**

Unit	Topic	Contact Hours		
		L	T	P
I	STARTING BLOCKS: Digital information: Megabytes, gigabytes and terabytes; Internet: Web browsers, search engines, websites, FTP; RSS readers and feeds; Iconic services: Google, Google Maps, MySpace, Instagram, YouTube, Digg, del.icio.us, Ebay, Amazon; Tags and tag clouds; Mobile internet connectivity.	15	0	15
II	ONLINE NEWS GATHERING: What is online journalism? News gathering: Shared database, crowd-sourcing, distributed, collaborative or open-source reporting, online research; Virtual newsroom; Information graphics: How to use them and why.	15	0	15
III	ONLINE NEWS WRITING: Storytelling: Non-linear storytelling, using chunks in a story, using multiple media; Integrating online features for storytelling: Immediacy, global reach, multiple media, archives, hyper-linking – internal and external, interactivity.	15	0	15
IV	BLOGS: Meaning and origin; Individual and professional blogs; Basic terminology: Post, permalink, trackback, blogroll, link-blog, vlog, moblog; Maintaining a blog: Think e-mail, Link, summarize and analyze, specific headlines; authority and personality; short posts; frequency; handling comments; Using photos and screenshots; Essentials of blog writing: Timely and relevant; lively and tight writing; time stamps, headlines; Contextual hyper linking; audio-visual elements; Interactivity, context.	15	0	15

**Texts and References:**

- Stephen Quinn and Vincent F. Filak (2005). *Convergent journalism: An introduction*, Focal Press.

**Principles of Communication**

Course Code	BJMCPAC101							
Course Title	Principles of Communication							
Course Credits	Lecture		Tutorial		Practice		Total	
	5		1		0		6	
Contact hours	75		15		0		90	
Course objective	This course aims to steer a student towards understanding the role and importance of communication in society. The course also builds a theoretical background for understanding how communication works. This course lays the theoretical base for applied communication courses.							
Type of the course	Core	DSE	Project		GE	AECC	SEC	
	√							
Pass marks	IA		Practical		Theory Exam		Total	
	Max	Pass	Max	Pass	Max	Pass	Max	Pass
	30	35%	0	0	70	35%	100	40%

**Examination Scheme:**

Components	Internal Assessment				Practical Examination	Theory Examination	Total
	Attendance	Class Test <sup>^</sup>	Classroom Activity <sup>*</sup>	House Test <sup>@</sup>			
Marks	5	5	10	10	00	70	100

<sup>^</sup> Class test will be taken on completion of 40% of the syllabus.

<sup>\*</sup> Classroom Activity marks will be awarded by the course teacher on the basis of assignments/tutorials/general behavior in the class.

<sup>@</sup> House test will be taken on completion of 75 percent of the syllabus.

**Instructions for Paper Setters:**

Question paper for the theory exam will cover all four units as explained below. The instructions should be mentioned at the beginning of each part of the question paper. Maximum time: 3 hours.

Part A	10 objective-type questions (MCQ/True-False/ Fill-in-the-blanks), each for one mark. All questions are compulsory. Five short answer questions (25 to 50 words) covering whole syllabus for four marks each. All questions are compulsory.	10 × 1 = 10 marks  5 × 4 = 20 marks
Part B	Two long answer type questions, each for 10 marks, from Unit I. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part C	Two long answer type questions, each for 10 marks, from Unit II. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part D	Two long answer type questions, each for 10 marks, from Unit III. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part E	Two long answer type questions, each for 10 marks, from Unit IV. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Total Marks (A+B+C+D+E)		70 marks

**Instructions for candidates:**



Maximum time allowed for answering the question paper is 3 hours. While answering, the candidates should strictly adhere to the word limit and use examples wherever possible.

**Course Contents:**

Unit	Topic	Contact Hours		
		L	T	P
I	COMMUNICATION BASICS: Concept and definitions of communication; Functions of communication; Elements and process of communication; Types of communication: intrapersonal, interpersonal, group and mass communication; Verbal and Non-verbal communication.	19	4	0
II	COMMUNICATION AND SOCIETY: 7 Cs of communication; Barriers to communication: Physical, language, cultural, emotional and perceptual barriers to communication; Socialization and role of communication in socialization. Meaning in communication; Basics of signs, symbols and codes.	19	4	0
III	COMMUNICATION MODELS: One-way and two-way models of communication; SMCR model; Lasswell formula; Osgood and Schramm model.	18	3	0
IV	COMMUNICATION THEORIES: Bullet theory; Personal influence theory; Normative theories: Authoritarian, libertarian, social responsibility and democratic participant media theories.	19	4	0

**Texts and References:**

- Erik Karl Rosengren (2000). *Communication: An Introduction*, London: Sage Publications.
- Keval J Kumar (2007). *Mass Communication in India* (4<sup>th</sup> edn), Mumbai: Jaico Publishing House.
- Stanley J Baran & Dennis K Davis (2002). *Mass Communication Theory: Foundations (2<sup>nd</sup> edn), Ferment, and Future*, Singapore: Thomason Asia Pvt. Ltd.
- N. Andal (2005). *Communication Theories and Models*, Bangalore: Himalaya Publishing House.
- Denis Mc Quail (2005). *Mc Quail's Mass Communication Theory*, New Delhi: Vistaar Publications.
- Vir Bala Aggarwal and VS Gupta (2002). *Handbook of Journalism & Mass Communication*, New Delhi: Concept Publication Company.
- John Fiske (2011). *Introduction to Communication Studies: Studies in culture and communication* (3<sup>rd</sup> edn), Oxon: Routledge.
- Uma Narula (2006). *Handbook of Communication: Models, Perspectives and Strategies*, Atlantic Publications.

**Introduction to Radio and TV**

Course Code	BJMCPAC201							
Course Title	Introduction to Radio and TV							
Course Credits	Lecture		Tutorial		Practice		Total	
	5		1		0		6	
Contact hours	75		15		0		90	
Course objective	This course aims to provide a basic understanding of the broadcast media to the students. The course contents will sensitize them towards television and radio media and their content.							
Type of the course	Core	DSE	Project		GE	AECC	SEC	
	√							
Pass marks	IA		Practical		Theory Exam		Total	
	Max	Pass	Max	Pass	Max	Pass	Max	Pass
	30	35%	0	0	70	35%	100	40%

**Examination Scheme:**

Components	Internal Assessment				Practical Examination	Theory Examination	Total
	Attendance	Class Test <sup>^</sup>	Classroom Activity <sup>*</sup>	House Test <sup>@</sup>			
Marks	5	5	10	10	00	70	100

<sup>^</sup> Class test will be taken on completion of 40% of the syllabus.

<sup>\*</sup> Classroom Activity marks will be awarded by the course teacher on the basis of assignments/tutorials/general behavior in the class.

<sup>@</sup> House test will be taken on completion of 75 percent of the syllabus.

**Instructions for Paper Setters:**

Question paper for the theory exam will cover all four units as explained below. The instructions should be mentioned at the beginning of each part of the question paper. Maximum time: 3 hours.

Part A	10 objective-type questions (MCQ/True-False/ Fill-in-the-blanks), each for one mark. All questions are compulsory. Five short answer questions (25 to 50 words) covering whole syllabus for four marks each. All questions are compulsory.	10 × 1 = 10 marks  5 × 4 = 20 marks
Part B	Two long answer type questions, each for 10 marks, from Unit I. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part C	Two long answer type questions, each for 10 marks, from Unit II. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part D	Two long answer type questions, each for 10 marks, from Unit III. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part E	Two long answer type questions, each for 10 marks, from Unit IV. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Total Marks (A+B+C+D+E)		70 marks

**Instructions for candidates:**

Maximum time allowed for answering the question paper is 3 hours. While answering, the

candidates should strictly adhere to the word limit and use examples wherever possible.

**Course Contents:**

Unit	Topic	Contact Hours		
		L	T	P
I	RADIO vs. TELEVISION: Characteristics of radio and television; Development of radio and television in India; Strengths and weaknesses of radio and television; Role and functions of radio and television in society.	19	4	0
II	TV PROGRAMMING GENRES: Types of programming: Fiction, Non-fiction and Mixed; Live, Packaged and Mixed; Programme format for television: News, current affairs, interviews, documentary, discussions, talk shows, reality TV, soap operas, game shows, educational programmes, lifestyle, travel and food, music shows, religious discourse, events – live and recorded, sports, etc.	19	4	0
IV	RADIO PROGRAMMING: Talks and discussions, news and current affairs, commentary on public events, radio drama, comedy and light entertainment, music, programmes for family welfare, education, rural audience, youth and armed forces, phone-in programmes.	18	3	0
IV	BROADCAST INDUSTRY: Doordarshan: Organisation structure; Doordarshan Kendras; Private Television Ownership and control in India; Analog Transmission: AM and FM; Growth of private FM channels in India; Community Radio; Campus Radio; Digital radio: Internet radio, satellite radio, visual radio.	19	4	0

**Texts and References:**

- Nalin Mehta (2008). *Television in India: Satellites, Politics and Cultural Change*, Oxon: Routledge
- Walter McDowell (2006). *Broadcast Television: A Complete Guide to the Industry*, New York: Peter Lang.
- Keval J Kumar (2012). *Mass Communication in India* (4<sup>th</sup> edn), Mumbai: Jaico Publishing House.
- PC Chatterji (1987). *Broadcasting in India*, New Delhi: Sage Publications.
- Melissa Butcher (2003). *Transnational Television, Cultural Identity and Change: When STAR Came to India*, New Delhi: Sage.
- David Page and William Crawley (2001). *Satellites over South Asia: Broadcasting, culture, and the Public Interest*, Sage Publications.
- Aditi Chatterjee, N. Bhaskara Rao and P. N. Vasanti (2000). *Vision and Mission for India's Public Broadcasting: Prasar Bharti Corporation*. New Delhi: Centre for Media Studies.
- Jonathan Bignell (2012). *An Introduction to Television Studies*, Oxon: Routledge.
- Gary Richard Edgerton and Brian Geoffrey Rose (2005). *Thinking Outside the Box: A Contemporary Television Genre Reader*, University Press of Kentucky.

- Prasar Bharti (2007). *All India Radio*, New Delhi: Audience Research Unit, Prasar Bharti (Available online: <http://allindiaradio.gov.in/allindiaradio/shared/AIRComp2007.pdf>).
- GoI (1983). *This is All India Radio: A handbook of radio broadcasting in India*, Publications Division, Ministry of Information and Broadcasting, Government of India.
- Keval J Kumar (2012). *Mass Communication in India* (4<sup>th</sup> edn), Mumbai: Jaico Publishing House.
- Vir Bala Aggarwal and VS Gupta (2002). *Handbook of Journalism & Mass Communication*, New Delhi: Concept Publication Company.
- Andrew Crisell (1994). *Understanding Radio* (2<sup>nd</sup> edn), New York and London: Routledge.
- Emile G. McAnany (1973). *Radio's Role in Development: Five Strategies of Use*, USAID (Available online: [http://pdf.usaid.gov/pdf\\_docs/PNAAD453.pdf](http://pdf.usaid.gov/pdf_docs/PNAAD453.pdf)).
- UNESCO (1965). *Radio Broadcasting Serves Rural Development*, UNESCO reports and papers on mass communication.
- PC Chatterji (1987). *Broadcasting in India*, New Delhi: Sage Publications.

**Department of Journalism and Mass Communication  
Himachal Pradesh University, Shimla – 5**

**Structure, norms and Syllabus for:**

- **B.A. with Journalism and Mass Communication**
- **B.A. (Honours) Journalism and Mass Communication**
- **Generic Elective Courses in Journalism and Mass Communication**

**w.e.f. Academic session 2016-17**

**Approved by the Under-Graduate Board of Studies  
in Journalism and Mass Communication on 16<sup>th</sup> June 2016**

**Contents**

List of abbreviations.....	iii
I. Norms, programme structure and curriculum for B.A. (Honours) Journalism and Mass Communication and B.A. with Journalism and Mass Communication .....	1
II. B.A. (Honours) Journalism and Mass Communication – List of courses .....	2
III. B.A. with Journalism and Mass Communication – List of Courses.....	3
IV. List of Generic Elective Courses in Journalism and Mass Communication .....	4
V. B. A. (Hons) Journalism and Mass Communication – Semester wise Structure.....	5
VI. B. A. with Journalism and Mass Communication – Semester wise Structure .....	6
VII. Courses for BA (Honours) Journalism and Mass Communication .....	7
1. Introduction to Journalism .....	8
2. Introduction to Media and Communication .....	10
3. Reporting and Editing for Print .....	12
4. Media and Cultural Studies.....	15
5. Introduction to Broadcast Media.....	18
6. History of the Media .....	20
7. Advertising and Public Relations.....	23
8. Introduction to New Media .....	26
9. Development Communication.....	29
10. Media Ethics and the Law .....	32
11. Global Media and Politics .....	35

## Visual Communication Basics

Course Code	BJMCHD601							
Course Title	Visual Communication Basics							
Course Credits	Lecture	Tutorial		Practice		Total		
	5	1		0		6		
Contact hours	75	15		0		90		
Course objective	This course intends to familiarise the students with the organisational structure of a newspaper along with the roles and responsibilities of key personnel working in various departments of a newspaper organisation. This course will also give a macro view of the working of a newspaper organisation thus preparing a budding journalist to identify her surroundings and adjust to the working environment.							
Type of the course	Core	DSE	Project	GE	AECC	SEC		
		√						
Marks distribution	CCA		Practical		ESE		Total	
	Max	Pass	Max	Pass	Max	Pass	Max	Pass
	30	45%	0	0	70	45%	100	45%

### Examination Scheme:

Components	Continuous Comprehensive Assessment			Practical Examination	End Semester Examination	Total
	Attendance	Classroom Activity*	Mid-Term Exam			
Marks	5	10	15	00	70	100

\*Classroom Activity marks will be awarded by the course teacher on the basis of seminars/ presentations/ assignment/ term paper/ quiz/ snap test/ group discussion/ etc.

### Instructions for Paper Setters:

Question paper for the end-semester will cover first four units as explained below. The instructions should be mentioned at the beginning of each Part of the question paper. Maximum time: 3 hours.

Part A	10 objective-type questions (MCQ/True-False/ Fill-in-the-blanks), each for one mark. All questions are compulsory. Five short answer questions (25 to 50 words) covering whole syllabus for four marks each. All questions are compulsory.	10 × 1 = 10 marks  5 × 4 = 20 marks
Part B	Two long answer type questions, each for 10 marks, from Unit I. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part C	Two long answer type questions, each for 10 marks, from Unit II. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part D	Two long answer type questions, each for 10 marks, from Unit III. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Part E	Two long answer type questions, each for 10 marks, from Unit IV. A question may contain subparts. One question is to be answered.	1 × 10 = 10 marks
Total Marks (A+B+C+D+E)		70 marks

**Instructions for candidates:**

Maximum time allowed for answering the question paper is 3 hours. While answering, the candidates should strictly adhere to the word limit and use examples wherever possible.

**Course Components:**

Unit	Topic	Contact Hours		
		L	T	P
I	BASIC CONCEPTS: The power of visual communication; Perception: Meaning and function in communication, visual perception; Four stages of visual perception: Viewing, brain processing of visual information, psychological processing, adding social-cultural dimension.	19	4	0
II	PSYCHOLOGICAL PROCESSING: perception of relationships, building of structures, predictive order, coalescing the real and the perceived, framing and contextualising, perceiving time, space and movement); Gestalt Psychology: Whole and parts; Gestalt Principles: Similarity, Proximity, Continuation, Closure, Figure/Ground.	19	4	0
III	CULTURAL CODES: Foundations for a Theory of Signs; Relations between signs and what they signify; Relation between signs and their users; Signification: from Denotation to Connotation.	19	4	0
IV	VISUAL CULTURE: Three types of responses to mass media images: dominant or preferred readings, negotiated readings, oppositional readings; Concept of gaze: desire, voyeurism, critique of male gaze, and interactive gaze, masculine and feminine identities.	18	3	0

**Texts and References:**

- Matteo Stocchetti and Karin Kukkonen (2011). *Images in Use: Towards the critical analysis of visual communication*, Amsterdam, Philadelphia: John Benjamins Publishing Company
- Ken Smith, Sandra Moriarty, Gretchen Barbatsis and Keith Kenney (2005). *Handbook of visual communication: Theory, methods, and media*, Mahwah, New Jersey London: Lawrence Erlbaum Associates, Publishers
- Kevin Mullet and Darrell Sano (1995). *Designing visual interfaces: Communication oriented techniques*, California: SunSoft Press, Prentice Hall
- Stephen W. Littlejohn and Karen A. Foss (2009). *Encyclopedia of communication*, Thousand Oaks, London, New Delhi, Singapore: Sage Publications.

# **CHOICE BASED CREDIT SYSTEM (CBCS)**

## **COURSE SCHEME & SYLLABUS**

**For  
Under Graduate Programme**

**Bachelor of Arts (BA)**

**with**

**ECONOMICS**

(Effective from Academic Year 2016 – 17 onwards)



**DEPARTMENT OF ECONOMICS  
HIMACHAL PRADESH UNIVERSITY  
SUMMER HILL, SHIMLA**

**171 005**



**Course No.** ECON612  
**Course title:** Project Work  
**Nature of Course:** DSE – 8  
**Number of credits:** 6  
**Number of Lectures (L): Practical (P): Tutorial (T):** 15:75:00

### **Course Description**

Project Work is one of the culmination points of the learning process, which will put to test the acquired ability of the candidate to independently take the charge of the project and use the understanding of economics developed in previous semesters to evaluate/analyze economic issues.

### **Course Outline**

The project *must* relate to economic issues/problems. The Project shall consist of the following components:

The Project will involve an extended, independent investigation of a topic and preparation of a 20,000 – 24,000 words dissertation. The chosen research area must be of a nature that incorporates an in depth exploration of economic concepts, theories and issues so as to produce a rigorous dissertation.

**A Dissertation that comprises purely descriptive material will not be acceptable.**

The dissertation must contain between 50-60 A4 pages printed on both sides. Font must be “Times New Roman”, font size 16 (heading), 14 (Sub-Headings) and 12 (text). Line spacing 1.5 inches, page indent Left 1.5 inches, Right, Top and Bottom 1 inch.

Note: Font size of tables may vary as per requirement.

### **Structure of Dissertation**

Structure is important because it dictates the topics discussed and the order in which they are organized. An ideal Dissertaion should comprise the following sequence:

1. Cover Page	10. Review of Literature
2. Title Page	11. Research Design/ Methodology
3. Acknowledgements	12. Results and Analysis
4. Table of Contents	13. Discussion of Implications
5. List of Tables &	14. Conclusions and/or Recommendations for Further Study
6. List of Figures/Illustrations	15. References
7. Abbreviations (if any)	16. Annexure(s) (if any)
8. Abstract	
9. Introduction	

Evaluation of the project work (ESE for 70% marks) will be based on dissertation and presentation along with continuous evaluation (CCA for 30% marks).

**NOTE:** The 70:30 marking ratio shall be as follows: 30 marks for synopsis submission (CCA - mid semester) and remaining 70 marks (ESE) to be distributed as 50 marks for Dissertation + 20 marks for Viva Voce. Therefore 30 + (50 + 20) = 100 marks.

## Syllabus: Skill Enhancement Course (SEC)

Semester	Skill Enhancement Course (SEC)	Course Code
III	<b>SEC – I</b>	
	SEC 1: Introduction to Statistics	ECON313
	SEC 2: Economics of Rural Development	ECON314
IV	<b>SEC – II</b>	
	SEC 3: Research Methodology	ECON415
	SEC 4: Economy of Himachal Pradesh	ECON416
V	<b>SEC – III</b>	
	SEC 5: Indian Economy	ECON517
	SEC 6: Emerging Areas in Economic Studies	ECON518
VI	<b>SEC – IV</b>	
	SEC 7: Demography	ECON619
	SEC 8: Money and Financial Markets	ECON620

**Course No.** ECON313  
**Course title:** Introduction to Statistics  
**Nature of Course:** SEC – 1  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 44:16:00

### **Course Description**

This course introduces the student to collection and presentation of data. It also discusses how data can be summarized and analysed for drawing statistical inferences. The students will be introduced to important data sources that are available and will also be trained in the use of free statistical software to analyse data.

### **Course Outline**

Unit	Title	Credits	
		L	P
I.	<b>Sampling and Sampling Design</b> Types of Data: Univariate and Bivariate data, qualitative and quantitative data; nominal and ordinal data, Cross-section and Time Series. Sources of data: Primary and Secondary data. Collection of Statistical Data: Census and sample Method. Sampling methods: Probability and Non Probability Sampling Methods. Merits and demerits of census and sampling. Sampling and Non-Sampling Errors.	10	4
II.	<b>Central Tendency &amp; Dispersion</b> Objectives of Averaging, Requisites of a Good Average. Arithmetic Mean, Median, Mode, Geometric Mean and Harmonic Mean. Limitations of Averages. Dispersion: Meaning and significance of dispersion. Measures of dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation, Coefficient of Variation, Variance, Absolute and Relative measures of variation.	12	4
III.	<b>Correlation &amp; Regression</b> Correlation: Meaning, Significance of the Study of Correlation. Types of Correlation: Positive, Negative, Partial, Multiple, Linear and Non-Linear. Methods of Studying Correlation: Karl Pearson's Coefficient of Correlation, Spearman's Rank Correlation. Regression: Meaning: Difference between Correlation and Regression; Regression Equations of X on Y and Y on X Only; Regression Coefficients. Elementary application of regression in demand, supply, consumption and investment functions.	11	4
IV.	<b>Time Series and Index Numbers:</b> Time Series Analysis – Concept and Components, Determination of trend (Linear, Quadratic and Exponential). Index Numbers – Concept, Price Relative, Quantity Relative and Value Relative, Laspeyer's, Paasche's and Fisher's Index Numbers; Problems in the Construction and Limitation of Index Numbers; Tests of an Ideal Index Number.	11	4
<b>Suggested Readings:</b> 1.. Elhance & Elhance, Fundamentals of Statistics, Kitab Mahal, New Delhi. 2. Lind D.A., W.G. Marchal and S.A Wathen., Statistical Techniques in Business and Economics, Tata Mc Graw Hill, New Delhi. 3. Yamane, Taro. Statistics. 4. Goon A.M., Gupta M.K., Das Gupta.B. (1999): Fundamentals of Statistics, Vol.II, World Press, Calcutta. 5. Meyer P.L (1970): Introductory Probability and Statistical applications. Addison Wesley. 6. Spiegel, M. R. (1967): Theory & Problems of Statistics, Schaum's Publishing Series. 7. Croxton F.E, Cowden D.J and Kelin S (1973): Applied General Statistics, Prentice Hall of India.			

**Course No.** ECON314  
**Course title:** Economics of Rural Development  
**Nature of Course:** SEC – 2  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 60:00:00

### **Course Description**

This course is designed to instill in the student a deeper understanding of rural development and issues therein. The student is expected to also achieve an appreciation of institutional efforts aimed at achieving rural development.

### **Course Outline**

Unit	Title	Credits
		L
I.	<b>Introduction of Rural Economy</b> Characteristics of rural economy, Social Aspects of India's Rural Areas, Barter System, Non-monetized Sector, Economic Characteristics Land and Asset Distribution. Agricultural Income, Vagaries of Monsoon, Agricultural Marketing, Agricultural Price Policy, Farm and Non-farm Income, Marketed and Marketable Surplus.	15
II.	<b>Unemployment and Poverty</b> Rural Unemployment: Types and Magnitude, Agricultural Labour, Marginal Productivity. Agricultural Wages, Wage Fixation: Minimum Wages Act. Rural Employment programmes, Employment Guarantee Act: MGNREGA. Rural Poverty: Nature, Trends, Causes and Consequences. Evaluation of Poverty Alleviation Programmes of Government.	16
III.	<b>Rural Indebtedness</b> Meaning of rural indebtedness, Rural Finance, Causes and magnitude of rural indebtedness, Sources of rural credit, Organized and unorganized, Money lenders, Indigenous Bankers, Co-operatives, Commercial Banks, Regional Rural Banks – NABARD.	14
IV.	<b>Decentralisation, Infrastructure and Rural Marketing</b> Critical evaluation of Panchayati Raj Institutions in rural development. Rural Infrastructure, Rural Industrialization. Agro-based Industries. Cooperative societies, Rural Marketing. Cooperative Marketing. Role of Self Help Groups.	15
<b>Suggested Readings:</b> 1. Gerald, Meir: Leading Issues in Rural Development, Oxford University Press, New Delhi 2. Agarwal A.N., Kundan Lal, Rural Economy of India, Vikas, Delhi, 1990. 3. L.C. Jain, Grass Without Roots, Oxford Publishing House. 4. Patel, K.V, Shan A.C, and Mello L.D, Rural Economics, Himalya, Mumbai, 1984. 5. Singh, Katar.: Rural Development – Principles, Policies and Management, Sage Publications. New Delhi 6. Reddy, Venkata, K.: Agriculture and Rural Development (A Gandhian Perspective), Himalaya Publishing House. 7. Sundaram, Satya, I.: Rural Development, Himalaya Publishing 8. Todaro, Michael P.: Economic Development, Pearson Education.		

**Course No.** ECON415  
**Course title:** Research Methodology  
**Nature of Course:** SEC – 3  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 44:16:00

### **Course Description**

This course is designed to rigorously train the students in the concepts, methodology and reasoning involved in analyzing economic behavior of firms and markets, in general, in both static and partial equilibrium frameworks.

### **Course Outline**

Unit	Title	Credits	
		L	P
I.	<b>Introduction to Research Methodology</b> Research: concept, meaning, significance, types, approaches; Criteria of good research; Research problem: selection, need, techniques involved; Reviewing and reporting Literature, Research Design: Meaning, need and Types. Data Collection Techniques: Questionnaire Method: Types, Format and Pre-Testing of Questionnaires. Techniques for Increasing Response of Respondents. Interview Method: Types, Process and Rules of Interviews. Factors affecting interview. Interviewer's Bias. Selection and Training of Interviewers. Observation Method: Types of Observations.	10	4
II.	<b>Measurement and Scaling Techniques</b> Measurement Scales: Different types of scales - nominal, ordinal, ratio and interval. Accuracy of Measurement and Testing of Reliability. Increasing Reliability. <b>Sampling Techniques:</b> sampling techniques: Probability Vs Non-probability sampling methods (Merits, Demerits and Applications).	12	4
III.	<b>Testing of Hypotheses:</b> Hypothesis: Meaning, and formulation. Types of hypothesis - Procedure for testing hypothesis -Type-I and Type-II errors. One tail, 2-tail test. Parametric Tests: Applications of t, z, and F-test Statistics. Non-Parametric Tests: Application of Chi-Square.	11	4
IV.	<b>Data Preparation, Analysis and Report Writing</b> Process of data analysis - Editing, coding, tabulation, diagrams. Use of computers: coding, data tabulation and graphic presentation of the data. Report writing: Significance of report writing. Different steps in writing the report - Mechanics of writing a research report. Ethics in research. Presentation of Research Report.	11	4

### **Suggested Readings:**

1. Goode and Hatt, Research Methodology, Prentice Hall Publications, 1959.
2. Kothari, C.R. Research Methodology, Methods and Techniques, New Age International Publisher.
3. Donald R. Cooper and Pamela S. Schindler, Business Research methods, 9th Edition, Tata McGrawHill, 2006.
4. Ghosh, B.N. Research Methodology, Himalayan Publishing House, New Delhi.
5. Alan Bryman and Emma Bell, Business Research methods, Oxford University Press, New Delhi, 2008.
6. Uma Sekaran, Research methods for Business, Wiley India, New Delhi, 2006.
7. K. N. Krishnaswamy, Appa Iyer Sivakumar and M. Mathirajan, Management Research Methodology, Pearson Education, New Delhi, 2006.
8. Sadhu A.N. and A. Singh, Research Methodology in Social Sciences, Himalaya Publishing House.
9. Gopal, M.H., Research Methodology in Social Sciences, Asia Publishing House, New Delhi.

**Course No.** ECON416  
**Course title:** Economy of Himachal Pradesh  
**Nature of Course:** SEC – 4  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 60:00:00

### **Course Description**

This course highlights the basic features, characteristics and developmental issues of the Himachal Pradesh economy.

### **Course Outline**

Unit	Title	Credits
		L
I.	<b>Features of Himachal Pradesh Economy</b> Resource endowment - Land, Water, Minerals, Forests, Demographic Trends, Human Development Index. Trends in State income – Structural growth before and after reforms, Sources of State Finances. Targets and Achievements of Plans and current year Budget.	15
II.	<b>Agriculture and Horticulture of Himachal Pradesh</b> Role of Agriculture and Horticulture in State Domestic Product Cropping pattern, Productivity and yield of major crops, Agricultural marketing, Agricultural finance, Marginalization and Agricultural Diversification in Himachal Pradesh. Trends in Fruit and vegetable Production and Productivity. Critical evaluation of government policies on agriculture and horticulture sector.	16
III.	<b>Industrial and Power Sector of Himachal Pradesh</b> Trends and patterns in industrial growth, large scale and small scale industries of Himachal Pradesh, Labour Welfare measures and skill development programmes. Trends in hydro power generation in Himachal Pradesh. Environmental issues related to Industrilisation and power projects in Himachal Pradesh.	14
IV.	<b>Infrastructure and Tourism of Himachal Pradesh</b> Transport: road, rail and air. Banking, Housing, Social Welfare, Education and health programmes of the State Government. Role of Tourism in the economic development of Himachal Pradesh.	15
<b>Suggested Readings:</b> <ol style="list-style-type: none"> <li>1. Economic Survey, Various Issues, Department of Economics and Statistics, GoHP.</li> <li>2. Himachal Pradesh Development Report, Planning Commission. Gol.</li> <li>3. Sharma, L.R. (1987), The Economy of Himachal Pradesh: Growth and Structure: a Study in Development Performance, Mittal Publishing.</li> <li>4. Ashok Kumar Tiwari, 2000, Infrastructure and economic development in Himachal Pradesh, Indus Publishing.</li> <li>5. Y.S. Parmar, Years of Challenge and Growth, Rubicon Publishing House.</li> <li>6. L.R. Sharma, (2005), Quality of Life in Himalayan Region, Indus Publishing.</li> <li>7. Mian Goverdhan Singh, History, Culture and Economy of Himachal Pradesh, Minerva Book House.</li> </ol>		

**Course No.** ECON517  
**Course title:** Indian Economy  
**Nature of Course:** SEC – 5  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 60:00:00

### **Course Description**

This course is designed to enable students to have in-depth knowledge of various problems and issues faced by Indian Economy. The course will concentrate on both the achievements and the issues of the economy.

### **Course Outline**

Unit	Title	Credits
		L
I.	<b>Understanding the Indian Economy</b> Impact of colonization on Indian Economy. Post-Independence Economy; Planning for the economy – objectives, strategy and achievements (Plan wise details to be excluded). State of the Economy in 1991. Features of the Economic Reforms and Structural Adjustment Programme: Liberalization, Privatization and Globalization. Appraisal of Economic Reform Programme. Relevance of planning in the context of globalization, Objectives and Functions of NITI Aayog.	15
II.	<b>Problems Faced by Indian Economy</b> Poverty: definition and estimate, poverty line, poverty alleviation programs. Inequality: income and regional inequality – causes and corrective measures. Unemployment: concepts, measurement, types, causes and remedies. Food problem and food security, Role of Public Distribution System (PDS) in India. Direct Cash Transfer Scheme of Government.	16
III.	<b>Agriculture in India</b> Pattern of Growth of Indian Agriculture since 1950; Land Reforms, Green Revolution, Agricultural Production, Productivity. Factors Influencing Agricultural Development: Marginalisation, Labour, Marketing and Finance. Issues and challenges in agricultural credit and subsidy. Deceleration in the 1990s – Causes and Future Challenges. Economic Liberalization and Emerging Trends in Indian Agriculture. New Agricultural Policy (In the context of liberalization.)	15
IV.	<b>Industries in India</b> Role of Industry in Economic Development. Pattern of Industrialization, Industrial development during the plan period. Role, Growth and Problems of Cottage, small scale and Medium scale industries in India. Industrial Policy: 1948, 1956 and 1991 and Recent Developments. Impact of New Industrial Policy on Industrial Sector.	14

### **Suggested Readings:**

1. U. Kapila (2010): Indian economy since Independence. Academic Foundation, New Delhi
2. S. Chakraborty ( ): Development Planning: The Indian Experience. Clarendon Press.
3. Jalan Bimal 1992, The Indian Economy - Problems and Prospects.
4. A. Panagariya (2008): India: the Emerging Giant, Oxford University Press, New York
5. S. Acharya and R. Mohan (Eds.) (2010): India's Economy: Performance and Challenges, Oxford University Press, New Delhi.
6. I. J. Ahluwalia and I. M. D. Little (Eds.) (1998): India's Economic Reforms and Development: Essays for Manmohan Singh, Oxford University Press, New Delhi.

**Course No.** ECON518  
**Course title:** Emerging Areas in Economic Studies  
**Nature of Course:** SEC – 6  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 60:00:00

### **Course Description**

This course has been designed to introduce the student to basic economic concepts of emerging areas in economics.

### **Course Outline**

Unit	Title	Credits
		L
I.	<b>Health Economics</b> Role of Health and Education in Human Development and poverty alleviation; health and education outcomes and their relationship with macroeconomic performance. Demand and Supply of Health Care; uncertainty and health insurance market; alternative insurance mechanisms; market failure and rationale for public intervention; equity and inequality. Evaluation of Health Programs: Costing, cost effectiveness and cost-benefit analysis; burden of disease.	15
II.	<b>Gender Economics</b> Gender Concepts: Sex & Gender, Nature and Types of Gender discrimination, Gender Roles. Demography of female population: Age structure, education, mortality rates, and sex ratio; causes of declining sex ratios and fertility rates in developing countries and particularly India. Economic status of women in agriculture, non-agricultural rural activities, informal sector, cottage and small-scale industries, organized industry and services sector, income level.	16
III.	<b>Environmental Economics</b> Meaning, Importance and Scope of Environmental Economics; The Evolution and Growth of Environmental Economics. The Concept of Externalities, Environment as a Public Good and Market Failure. Economic growth and development; Environmental Kuznet's Curve: Theory and Some Empirical Evidences. Economics of sustainable development; Trade, development and environment under WTO regime. Gender roles and environmental concerns at national and local levels; Gendered impact of pollution and natural hazards; Climate change and gender.	14
IV.	<b>Energy Economics</b> Sources of Energy. Role of Energy in Economic Development. Factors Determining Demand for Energy; Energy Crisis: causes - Consequences and Remedial Measures. Energy Conservation. Renewable and Nonconventional Sources of Energy. The Relative Economics of Thermal, Hydel and Nuclear Power Plants. The Case for a National Power Grid. The Exploitation of Natural Gas. Pricing Problem, Environmental implications. Carbon Credit and Trading, Clean Development Mechanism (CDM).	15

### **Suggested Readings:**

1. Meier, G.M. and J.E. Rauch (2007), Leading Issues in Economic Development, Oxford University Press, New Delhi.
2. Charles Phelps, Health Economics.
3. National Institute of Public Finance and policy (NIPFP); Gender Budgeting in India, [www.nipfp.org.in](http://www.nipfp.org.in).
4. UNDP - Human Development Reports.
5. Lourdes Beneria and Savithri Biswanath; Gender and Development: Theoretical, Empirical and practical Approaches.
6. Lekha Chakraborti; Invisibility of Women's Work in Budgeting.
7. Katar Singh and Shishodia (2007), Environmental Economics – Theory and Application, Sage Publication, New Delhi.



**Course No.** ECON619  
**Course title:** Demography  
**Nature of Course:** SEC - 7  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 60:00:00

### Course Description

The main objective of this paper is to make the students aware of the importance of population in economic development and the various theories that explain the growth of population in a country. The study of Quantitative and Qualitative composition of population is also required to understand the dynamics of population growth.

### Course Outline

Unit	Title	Credits
		L
I.	<b>Theories of Population</b> Theories of Population: Malthus, Optimum, Marxian, Leibenstein, Becker, Demographic Transition Theory and Optimum Population Theory. Population and Economic Development: Utilization of Resources (Boserup Thesis) Technology and Production of Food, Population and Environment.	15
II.	<b>Components of Population Growth</b> Population Structure and Characteristics: Impact of Population Growth on the Age and Gender Structure. Aging of Population. Fertility: Concepts of Fertility Transition. Measurement of Fertility; Factors affecting fertility and Fertility Differentials in India. Mortality: Components and Measurement. causes of high infant mortality rate in developing countries. Mortality Differentials in India.	16
III.	<b>Migration and Urbanization</b> Migration: Concepts, Types, Measurement, Migration Selectivity, Causes and Consequences (Economic and Demographic) of Migration. Migration in India: Causes and Trends, Migration Differentials in India: Rural-Urban, Male-Female. Urbanization: Concepts, Determinants and Consequences. Trends of Urbanization in India.	14
IV.	<b>Growth and Structure of Indian Population</b> Literacy: Literacy Transition in India, Pattern of Literacy and Literacy Differentials in India. Economic Composition of Indian Population: Work Force Participation and Occupational Structure. Population in Estimation of India: Census, Sampling and Vital Registration Methods. Population Policy in India since Independence. National Family Health Survey of India - merits and demerits. National Rural Health Mission.	15

### **Suggested Readings:**

1. Asha Bhende and Tara Kanitkar. 2001. Principles of Population Studies. Revised Edition. Himalya Publishing House.
2. K.B.Pathak and F.Ram. 1995. Techniques of Demographic Analysis. Himalaya Publishing House. Mumbai
3. Bogue, D. J. 1971. Principles of Demography. John Wiley, New York.
4. Keyfitz, 1978. Applied Mathematical Demography. John Willy, New York
5. Mishra, B. D. An Introduction to the Study of Population. South Asian Publishing, N. Delhi.
6. National Family Health Survey Report (Various editions). International Institute for Population Studies, Mumbai.
7. Bose, A. (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.
8. Bogue, D.J. (1971), Principles of Demography, John Wiley, New York.
9. Chenery H. and T.N. Srinivasan (Eds.) (1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier.
10. Coale, A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospectus, Princeton University Press, Princeton.
11. Census of India: Various Issues.

**Course No.** ECON620  
**Course title:** Money and Financial Markets  
**Nature of Course:** SEC – 8  
**Number of credits:** 4  
**Number of Lectures (L): Practical (P): Tutorial (T):** 60:00:00

### Course Description

This course exposes students to the theory and functioning of the monetary and financial sectors of the economy. It highlights the organization, structure and role of financial markets and institutions. It also discusses interest rates, monetary management and instruments of monetary control. Financial and banking sector reforms and monetary policy with special reference to India are also covered.

### Course Outline

Unit	Title	Credits
		L
I.	<b>Financial System</b> Structure, Role and Significance of Banking and Financial Institutions. Institutional structure in India: Commercial Banks; Cooperative banks; Private sector banks; Non-Bank Financial Intermediaries. Finance Companies: Mutual Funds; Lease finance; Housing Finance; Venture Capital funds; Hedge Funds; Insurance companies; Infrastructure Finance Companies. Function of Financial Markets: Equity Markets; Primary and Secondary Markets; Exchanges and Over-the-Counter Markets; Money and Capital Markets.	15
II.	<b>Money Market</b> Money market: Institutions and constituents of Money Market: Call Money Market; The Discount Market; The 'Parallel' Markets; The Interbank Market; The Market for Certificates of Deposit; The Euromarkets. Monetary Policy and the Money Markets. Regulation of Money Markets and Clearing Houses. Indian Money Market: Participants, Structure and Instruments, Banking Sector Reforms since 1991.	16
III.	<b>Capital Market</b> Capital Market: The Importance of Capital Markets; Characteristics of Bonds and Equities; Bonds: Supply, Demand and Price; Equities: Supply, Demand and Price. The Behavior of Security Prices; Preference Shares; Convertible Debentures; Non-convertible Debentures (NCDs) Partially Convertible debentures (PCDs) - Fully Convertible Debentures (FCDs); Debt with Call and Put Options. Indian Capital Market: Primary and Secondary Market, Growth, Problems and Reforms since 1991.	14
IV.	<b>Regulation of Capital Market and Evolving Areas for Financial Regulations</b> Regulation of Capital Market: Securities Exchange Board of India Regulations; Securities and Exchange Board of India Act, 1992; Prohibited Transactions: Insider Dealing; Market Abuse; Money Laundering. Corporate Governance and Management Guidance and Supervision; Role of stock exchanges and NSDL. Evolving areas for Financial Regulation Subprime Crisis; Regulation of Non-Bank Financial Intermediaries; Mortgage Backed Securities and OTC market; Derivatives Markets - Foreign Exchange Derivatives and Swaps.	15

### Suggested Readings:

1. Fabozzi, Frank, Modigliani, Franco, Jones, Frank (Feb 2009), Foundations of Financial Markets and Institutions, International Edition, 4th Edition, Pearson Higher Education.
2. Mishkin, Frederic S. Find all the books, read about the author, and more.
3. Eakins, Stanley G. (2005), Financial Markets and Institutions (5th Edition), Addison Wesley.
4. Howells, Peter, Bain, Keith (2007), Financial Markets and Institutions, 5th Edition
5. Madura, Jeff (2008), Financial Markets and Institutions, 8th edition, Thomson Publications.
6. Kidwell, David, Blackwell, David W., Whidbee, David A. et.al. (2008) Financial Institutions, Markets, and Money, 10th Ed., John Wiley & sons.

**B.A. with English**  
**Undergraduate YEARLY Programme**  
**Syllabus**  
**(Effective from the Academic Session 2018-19)**



**Department of English**  
**Himachal Pradesh University**  
**NAAC Accredited 'A' Grade University**  
**Summer Hill Shimla – 171005**

## **CONTENTS:**

- 1. Syllabus**
- 2. Pattern of Testing**
- 3. Transcript**
- 4. Annual Scheme**

**Department of English**  
**B.A. with English**  
**Undergraduate YEARLY Programme**  
**Syllabus**  
**(Effective from the Academic Session 2018-19)**

**First Year**

Year	Paper Code	Course Name & Syllabus	Credits
I	ENG CE 101	<p><b>English-1 Core English (Compulsory) for B.A. and B.Com.</b></p> <p><b>UNIT-I</b></p> <p>i. “Ozymandias” ii. “Blow Blow thou Winter Wind” iii. “Good Morrow” iv. “The Man he Killed” v. “Lines Written in Early Spring”</p> <p><b>Poems</b> from <i>The Blossoming Mind</i>. Ed. V. K. Khanna and Meenakshi F. Paul. New Delhi: Macmillan.</p> <p><b>UNIT-II</b></p> <p>i. "The Parrot in the Cage" ii. "Dinner for the Boss" iii. "The Reddening Tree" iv. "At the Himalayas" v. "The Value of Silence"</p> <p><b>Stories and Essays</b> from <i>Life Unfolded</i>. Ed. V. K. Khanna and Meenakshi F. Paul. New Delhi: Oxford University Press.</p>	6

		<p><b>UNIT-III</b></p> <p><b>Applied Grammar:</b></p> <p>The use of Articles, Prepositions, Verb Forms, Phrasal Verbs and Comprehension</p> <p>(The literary pieces incorporated in the course are to be used as tools to teach language through literature with emphasis on reading, listening, comprehension, summarizing, inference and discussion.)</p> <p><b>Classroom Activity:</b></p> <ul style="list-style-type: none"> <li>• Reading, Speaking and Listening Exercises</li> <li>• Conversation</li> <li>• Etiquettes: Personality Development</li> </ul>	
I	<p><b>ENG DSC 102/</b></p> <p><b>ENG HONS GE 101</b></p>	<p><b>DSC-1A English Literature-1 (Essays, Stories and Poems)</b></p> <p>(Core Course for students who choose English as Discipline and <b>Generic Elective (Interdisciplinary)</b> for Honours Students of other subjects)</p> <p><b><u>Detailed Study:</u></b></p> <p><b>UNIT-I</b></p> <ol style="list-style-type: none"> <li>“Deliverance” by Premchand</li> <li>“Joothan” by Omprakash Valmiki</li> <li>“Kallu” by Ismat Chughtai</li> <li>“Bosom Friend” by Hira Bansode</li> </ol> <p><b>UNIT-II</b></p> <ol style="list-style-type: none"> <li>“Girl” by Jamaica Kincaid</li> <li>“A Prayer for my Daughter” by W. B. Yeats</li> <li>“Yellow Fish” by Ambai</li> <li>“Reincarnation of Captain Cook” by Margaret Atwood</li> </ol> <p><b>UNIT-III</b></p> <ol style="list-style-type: none"> <li>“Blackout” by Roger Mais</li> <li>“Telephone Conversation” by Wole Soyinka</li> <li>“Harlem” by Langston Hughes</li> <li>“Still I Rise” by Maya Angelou</li> </ol> <p><b><u>Non-Detailed Study:</u></b></p> <p><b>UNIT-IV</b></p> <ol style="list-style-type: none"> <li>“Conscientious Objector” by Edna St. Vincent Millay</li> <li>“General, Your Tank is a Powerful Vehicle” by Bertolt Brecht</li> </ol>	6

		<p>ii. "Habit" by F.M. Shinde          "An Untitled Poem" by N.T. Rajkumar          "Excerpts from <i>Karukku</i>" by Bama</p> <p><b><u>Non-Detailed Study:</u></b></p> <p><b>UNIT-V Writing in English:</b></p> <p>i. "Mother Tongue" by Padma Sachdev          ii. "Excerpts from <i>Kanthapura</i>" by Raja Rao</p> <p><b>UNIT-VI Woman Speak: Examples from Kannada and Bangla:</b></p> <p>i. Excerpts from "A Flowering Tree: A Woman's Tale" by A. K. Ramanujan          ii. Excerpts from "A Woman's Retelling of the Rama Tale" by Nabaneeta Deb Sen</p> <p><b>UNIT-VII Literary Cultures: Gujarati and Sindhi:</b></p> <p>i. Excerpts from "At the Crossroads of Indic and Iranian Civilizations" by Ali S. Asani</p> <p>Units I-VII are from <i>Cultural Diversity, Linguistic Plurality and Literary Traditions in India</i> by Sukrita Paul Kumar, et.al. Macmillan India, 2005.</p> <p><b>UNIT-VIII Nationalism:</b></p> <p>i. "Nationalism in West"          ii. "Nationalism in India"</p> <p>From <i>Nationalism</i> by Rabindranath Tagore. Macmillan, 1995.</p> <p><b>UNIT-IX Aspects of Civilization:</b></p> <p>i. "What is True Civilization" (52-54)          ii. "Civilization" (30-32)          From <i>Hind Swaraj</i> by M. K. Gandhi. Navjeevan Publishing House, 2006.</p>	
<b>I</b>	<b>ENG AECC 104</b>	<p><b>AECC-2 Writing Skills</b></p> <p>i. Diary Writing          ii. Paragraph Writing          iii. Summary/Note-making          iv. Formal and Informal Letter Writing          v. CV/ Resume Writing          vi. Report Writing          vii. Interview/Feature Article          viii. Notice Writing</p>	<b>4</b>

		<p><b>Classroom Activity:</b></p> <p>Speaking Skills, Listening Skills, Mock Interview, Speech Making Project Work</p> <p><b>Suggested Projects:</b></p> <p>Sports Writing, Poetry about Women/Men, Poetry in Translation, Translating a Poem, Telling a Story, Fantasy Writing, Chat Shows, The Menace of Dowry, A Success Story, Creative Writing, Theatre Groups, Interviewing a Celebrity, Writing a Newspaper Article on a Current Topic, Today's Youth and Youth Icons, Leadership and Politics, Examination System and Benefits of Reform, the Epics, Communalism, Gender Discrimination, Social Activism.</p> <p><b>Recommended Reading:</b></p> <ol style="list-style-type: none"> <li>1. <i>English Communication Skills: AECC under CBCS, HPU.</i> Meenakshi F. Paul and Madhumita Chakraborty. Macmillan, 2017.</li> </ol> <p><b>Suggested Readings:</b></p> <ol style="list-style-type: none"> <li>1. <i>Fluency in English.</i> Part I. Macmillan, 2005.</li> <li>2. <i>Fluency in English.</i> Part II. OUP, 2006. Unit 1-15.</li> <li>3. <i>El Dorado: A Textbook of Communication Skills.</i> Orient Blackswan, 2014. Units 1-5.</li> <li>4. <i>Interchange.</i> Workbook III. Fourth Edition. Cambridge University Press, 2015. Units 1-8.</li> <li>5. <i>New Headway.</i> Intermediate Student's Book. 3rd Edition. Oxford University Press, 2012. Units 1-6.</li> <li>6. <i>Write to be Read: Reading, Reflecting &amp; Writing.</i> First South Asian edition. Cambridge University Press, 2014. Units 1-4.</li> <li>7. <i>Business English.</i> Pearson, 2008. Units 4-6.</li> </ol>	
--	--	--	--



**Choice Based Credit System 2017**

**Himachal Pradesh University**

**(NAAC ACCREDITED "A" GRADE UNIVERSITY)**

**Department of English**



**B.A. with English (Regular)**

**Semester-III to Semester-VI**

**H.P. University,**

**Summer Hill, Shimla-5**

		<p>3. Transformation (i) Interchange of Degree <b>(5 Sentences in all)</b></p> <p>4. Homonyms <b>(5 words)</b> <b>(Students will be required to use the given words in sentences so as to illustrate their meaning)</b></p>	
III	ENGL 302	<p><b>DSC 1-C</b></p> <p><b>British Literature (Novel and Play)</b></p> <p><b>Drama-</b> William Shakespeare: <i>The Merchant of Venice</i> <b>(Detailed Study)</b></p> <p><b>Novel-</b> Charles Dickens: <i>Oliver Twist</i> <b>(Non-Detailed Study)</b></p>	6
III	ENGL 303	<p><b>AEEC/SEC - I: Creative Writing, Book and Media Reviews</b></p> <p><b>Unit-I</b> What is Creative Writing?</p> <p><b>Unit-2</b> The Art and Craft of Writing</p> <p><b>Unit-3</b> Modes of Creative Writing</p> <p><b>Unit-4</b> Writing for Media</p> <p><b>Recommended Book:</b> Anjana Neira Dev, et al. <i>Creative Writing: A Beginner's Manual</i>. Delhi: Pearson, 2009. Print.</p>	4

SEMESTER	PAPER CODE	COURSE NAME & SYLLABUS	CREDITS
IV	<b>ENGL 403</b> (Course Code for Honours Students is ENGL 404H)	<b>AEEC/SEC-2</b> <b>Translation Studies and Principles of Translation</b> <b>Unit 1</b> <b>Introduction to Translation:</b> <ol style="list-style-type: none"> <li>1. Definition of Translation—Translating from source language to target language</li> <li>2. Purpose of Translation—Translation as a literary, cultural, and knowledge bridge, self-other interaction</li> </ol> <b>Unit 2</b> <b>Approaches to Translation:</b> <ol style="list-style-type: none"> <li>1. Domestication: Readability in the target language</li> <li>2. Foreignisation: Faithfulness to the source language text</li> </ol> <b>Unit 3</b> <b>Methods of Translation:</b> <ol style="list-style-type: none"> <li>1. Meta-phrase—sense translation based on difference</li> <li>2. Paraphrase—word-to-word translation based on equivalence</li> <li>3. Imitation—regulated transformation</li> <li>4. Interpretation and Adaptation</li> </ol> <b>Unit 4</b> <b>Problems of translation:</b> <ol style="list-style-type: none"> <li>1. Cultural gap</li> <li>2. Untranslatability</li> <li>3. Translation as appropriation of indigenous languages by English</li> </ol> <b>Unit 5</b> <b>Translation in India:</b> <ol style="list-style-type: none"> <li>1. Definitions: <i>Anuvad, Bhashantar, Roopantar</i></li> <li>2. Key Terms: <i>Rasa, Dhvani, Auchitya</i></li> <li>3. Reading Translation: Cultural difference, contexts and language               <ol style="list-style-type: none"> <li>(a) Shubhangi Bhadbhade, “Garden of Spice”</li> <li>(b) Jaywanti Dimri, The Inner Eye”</li> </ol> <b>(Both these stories are from the book mentioned below)</b>                Sharma, Rekha, (Ed.) Translation, Theory and Practice. Delhi: Authorpress, 2015.             </li> </ol>	4

		<p><b>Unit 6</b></p> <p><b>Translation</b></p> <ol style="list-style-type: none"> <li>1. Translating a literary/non-literary passage of about 500 words from Hindi into English and English into Hindi.</li> </ol> <p><b>Suggested Reading:</b></p> <ol style="list-style-type: none"> <li>1. Baker, M., editor. <i>Routledge Encyclopedia of Translation Studies</i>, Routledge, 1998.</li> <li>2. Barlingay, S. S. <i>A Modern Introduction to Indian Aesthetic Theory</i>. DK Printworld, 2007.</li> <li>3. Bassnett, Susan. <i>Translation Studies</i>, Routledge, 2002 ed.</li> <li>4. Bassnett, Susan and Harish Trivedi, editors. <i>Post-colonial Translation: Theory and Practice</i>. Routledge, 1999.</li> <li>5. Sharma, Rekha, (Ed.) <i>Translation, Theory and Practice</i>. Delhi: Authorpress, 2015.</li> <li>6. St-Pierre, Paul and Prafulla C. Kar, editors. <i>Reflection, Refraction, Transformation</i>. Pencraft, 2005.</li> <li>7. Venuti, L., editor. <i>The Translation Studies Reader</i>. Routledge, 2000.</li> </ol>	
--	--	--	--

Semester V

SEMESTER	PAPER CODE	COURSE NAME & SYLLABUS	CREDITS
V	ENGL 501 (Course Code for Honours Students is ENGL 305H)	<p><b>Contemporary India: Women and Empowerment (Generic Elective-1)</b></p> <p><b><u>1. Social Constructions of Gender</u></b></p> <p>(a) "The Creation of Patriarchy." <i>The Creation of Patriarchy</i> by Gerda Lerner</p> <p>(b) "The Social Organization of Masculinity." <i>Masculinities</i> by R.W. Connell.</p> <p><b><u>History of Women's Movements in India</u></b></p> <p>(a) "Women in the Nationalist Movement"</p> <p>(b) "Women in Independent India"</p> <p>(a &amp; b ) From Geraldine Forbes. <i>The New Cambridge History of India</i>. IV. 2. <i>Women in Modern India</i>, 2008.</p> <p><b><u>3. Women and Law</u></b></p> <p>(a) Madhu Kishwar and Ruth Vanita. "Initiatives Against Dowry Deaths." <i>Women's Studies in India</i>. Ed. Mary E. John.</p> <p>(c) Nivedita Menon . "The Elusive 'Woman': Feminism and the Women's Reservation Bill." <i>Women's Studies in India</i>. Ed. Mary E. John.</p> <p><b><u>4. Women and Environment</u></b></p> <p>(a) Malavika Karlekar. "Domestic Violence." <i>Women's Studies in India</i>. Ed. Mary E. John.</p> <p>(d) "Terra Mater: Reclaiming the Feminine Principle." <i>Staying Alive</i> by Vandana Shiva.</p> <p><b><u>5. Female Voices</u></b></p> <p>(a) Rokeya Sakhawat Hossain: "Sultana's Dream"</p> <p>(b) Lalithambika Anterjanam: "Revenge Herself"</p> <p>(c) Shivani: "Dadi." ("Grandmother"). <i>Women Writing in India: 600BC to the Present---</i> Vol . 2. New Delhi: OUP, 1995. Print.</p> <p><b><u>6 Dalit Discourse</u></b></p> <p>(a) Ruth Manorama . "Dalit Women: The Downtrodden Among the Downtrodden." <i>Women's Studies in India</i>. Ed. Mary E. John.</p> <p>(b) Urmila Pawar: "A Childhood's Tale"</p> <p>(c) Gogu Shaymala. "Raw Wound." <i>Father Maybe an Elephant and Mother Only a Small Basket, But..."</i></p>	6

		<p><b>Suggested Supplementary Reading;</b></p> <p>Gerda Lerner. <i>The Creation of Patriarchy</i>. Oxford University Press.</p> <p>Bina Aggarwal . <i>A Field of One's Own: Gender and Land Rights in South Asia</i>. Cambridge University Press.</p> <p>Jane Pilcher and Imelda Whelehan. <i>50 Key Concepts in Gender Studies</i>. Sage Publications.</p> <p>Nivedita Menon. <i>Seeing Like a Feminist</i>. Zubaan, Penguin.</p> <p>Raka Ray, ed. <i>Fields of Protest: Women's Movements in India</i>. University of Minnesota Press.</p> <p>Saugata Bhaduri and Indrani Mukherjee, Springer, ed. <i>Transcultural Negotiations of Gender</i>. Sita Anantha Raman. <i>Women in India- A Social and Cultural History</i>. Vols I &amp;II, ABC CLIO, LLC.</p> <p>Vandana Shiva. <i>Staying Alive- Women, Ecology and Survival in India</i>. Kali for Women.</p> <p>Geraldine Forbes. <i>Women in Modern India</i>. Cambridge University Press.</p> <p><b>Films:</b></p> <p><i>Kunku</i> (1937) (Marathi)</p> <p><i>Mahanagar</i> (1963)</p> <p><i>Pratighat</i> (1987)</p> <p><i>Mirch Masala</i> (1987)</p> <p><i>Bandit Queen</i> (1994)</p> <p><i>Hari Bhari</i> (2000)</p> <p><i>Lajja</i> (2001)</p> <p><i>Kovilpatti Veeralakshmi</i> (2003)</p> <p><i>Matrubhoomi</i> (2003)</p> <p><i>English Vinglish</i> (2012)</p> <p><i>The World before Her</i> (2012)</p> <p><i>Queen</i> (2014)</p> <p><i>Pink</i> (2016)</p>	
--	--	---	--

		<p><b>F) Reading Visual Texts</b></p> <ol style="list-style-type: none"> <li>1) Graphics/ Cartoons: Reading and Analysis (with Special Reference to India)</li> <li>2) Understanding / Interpreting Indian Films</li> </ol> <p><b>Suggested Readings</b></p> <p>Chakravarthi, T. Kalyana and T. Latha Chakravarthi. <i>Soft Skill for Managers</i>. First Edition. New Delhi: Wiley Publishing Ltd., 2015. Print.</p> <p>Dhanavel, S.P. <i>English and Soft Skills</i>. Hyderabad: Orient Black Swan, 2013. Print.</p> <p>James, Larry. <i>The First Book of Life Skills</i>. First Edition. Mumbai: Embassy Books, 2016. Print.</p> <p>Maxwell, John C. <i>The 5 Levels of Leadership</i>. New York: Centre Street, A division of Hachette Book Group Inc., 2014. Print.</p> <p>Mitra, Barun K. <i>Personality Development &amp; Soft Skills</i>. First Edition. New Delhi: Oxford Publishers, 2011. Print.</p> <p>Verma, Shalini. <i>Development of Life Skills and Professional Practice</i>. First Edition; Noida. Vikas Publishing, 2014. Print.</p> <p>Dwyer, Rachel, <i>Beyond The Boundaries Of Bollywood: The Many Forms of Hindi Cinema</i>. New Delhi: Atlantic Publishers, 2011.</p> <p>Dwyer, Rachel, <i>Picture Abhi Baki Hai: Bollywood as a Guide to Modern India</i>. New Delhi: Hatchette, 2014.</p> <p>Laxman, R.K., <i>Brushing up the Years: A cartoonist's History of India, 1947</i>. New Delhi: Penguin India, 2008.</p> <p>Devadawson, C.R., <i>Out of Line</i>. New Delhi: Orient Black swan, 2014.</p>	
V	ENGL 503	<p><b>AEEC-3 :Technical Writing</b></p> <p><b>UNIT 1:</b> Communication: Language and Communication, Difference between Speech and Writing, Distinct Features of Speech and Writing.</p> <p><b>UNIT II:</b> Writing Skills; Selection of Topic, Thesis Statement, Developing the Thesis Introductory, Developmental Transitional and Concluding Paragraphs, Linguistic Unity, Coherence and Cohesion, Descriptive, Narrative, Expository and Argumentative Writing.</p> <p><b>UNIT III:</b> Technical Writing; Scientific and Technical Subjects, Formal and Informal Writings, Writing Reports, Handbooks, Manuals, Letters, Memorandums, Notices, Agenda, Minutes, Common Errors to be Avoided.</p>	4

		<p><b>SUGGESTED READINGS:</b></p> <ol style="list-style-type: none"> <li>1. Raman &amp; Sharma. <i>Fundamentals of Technical Communication</i>. New Delhi: OUP.</li> <li>2. Mitra. <i>Effective Technical Communication</i>. New Delhi: OUP.</li> <li>3. Raman &amp; Sharma. <i>Technical Communication, 3<sup>rd</sup> edition</i>, New Delhi: OUP.</li> <li>4. M. Frank. <i>Writing as Thinking: A Guided Process Approach</i>, Englewood Cliffs, Prentice Hall Regents.</li> </ol>	
--	--	---	--



**B.A. with English**  
**Undergraduate SEMESTER Programme**  
**Syllabus**

**Semester V and VI**  
**(Revised w.e.f. the Academic Session 2018-19)**



**Department of English**  
**Himachal Pradesh University**  
**NAAC Accredited 'A' Grade University**  
**Summer Hill, Shimla - 171005**

		<ul style="list-style-type: none"> <li>• Verma, Shalini. <i>Development of Life Skills and Professional Practice</i>. First Edition; Noida. Vikas Publishing, 2014. Print.</li> <li>• Dwyer, Rachel. <i>Beyond the Boundaries of Bollywood: The Many Forms of Hindi Cinema</i>. New Delhi: Atlantic Publishers, 2011.</li> <li>• Dwyer, Rachel. <i>Picture Abhi Baki Hai: Bollywood as a Guide to Modern India</i>. New Delhi: Hatchette, 2014.</li> <li>• Laxman, R. K. <i>Brushing up the Years: A Cartoonist's History of India, 1947</i>. New Delhi: Penguin India, 2008.</li> <li>• Devadawson, C. R. <i>Out of Line</i>. New Delhi: Orient Blackswan, 2014.</li> </ul>	
V	ENGL 503	<p><b>AEEC-3: Technical Writing</b></p> <p><b>UNIT-I</b></p> <p><b>Language Skills:</b> Tenses, Voice, Narration and Punctuation</p> <p><b>UNIT-II</b></p> <p><b>Technical Writing:</b> Definition and Preparation of Manual, Memorandum, Agenda, Minutes of a Meeting, and Powerpoint Presentation</p> <p><b>UNIT-III</b></p> <p><b>Writing Skills:</b> Basic Research Methodology:</p> <p><b>Project Report</b></p> <p>a) Format</p> <ul style="list-style-type: none"> <li>• Margins</li> <li>• Headings</li> <li>• Indentation</li> <li>• Pagination</li> <li>• Type Face and Fonts</li> <li>• Common Abbreviations</li> </ul> <p>b) Organisation</p> <ul style="list-style-type: none"> <li>• Preparation of the Basic Plan - Ideas and Background Research</li> <li>• Outline with Headings and Sub-headings</li> <li>• Writing, Reading and Re-writing</li> </ul> <p>c) Contents</p> <ul style="list-style-type: none"> <li>• Cover and Title Page</li> </ul>	4

		<ul style="list-style-type: none"> <li>• Table of Contents</li> <li>• Preface/Acknowledgement</li> <li>• Abstract/Summary</li> <li>• Introduction</li> <li>• Heading and Sub-headings</li> <li>• Findings</li> <li>• Conclusion</li> <li>• Recommendations</li> <li>• Works Consulted and Cited</li> </ul> <p><b>UNIT-IV</b></p> <p><b>Data Analysis</b></p> <p>(a) (i) Qualitative Interpretation (ii) Quantitative Interpretation</p> <p>(b) Reading and Interpreting Data: (i) Bar Graphs (ii) Pie Charts</p> <p><b>Classroom Activity:</b> Writing a Project Report</p> <p><b>Recommended Style:</b> <i>MLA Handbook</i>. 8<sup>th</sup> Edition</p> <p><b>Suggested Readings:</b></p> <ol style="list-style-type: none"> <li>1. Raman &amp; Sharma. <i>Fundamentals of Technical Communication</i>. New Delhi: OUP.</li> <li>2. Mitra. <i>Effective Technical Communication</i>. New Delhi: OUP.</li> <li>3. Raman &amp; Sharma. <i>Technical Communication, 3rd edition</i>. New Delhi: OUP.</li> <li>4. M. Frank. <i>Writing as Thinking: A Guided Process Approach</i>. Englewood Cliffs, Prentice Hall Regents.</li> </ol>	
<b>VI</b>	<b>ENGL 601</b> <b>(Course Code</b> <b>for Honours</b> <b>Students is</b> <b>ENGL 405H)</b>	<p><b>GE-2</b></p> <p><b>Generic Elective</b></p> <p><b>Language, Literature and Culture</b></p> <p><b>1. Understanding India</b></p> <p>(a) Modern Literature:</p> <ul style="list-style-type: none"> <li>• “Think India: A Rainbow of Contradictions” by Vinay Rai</li> </ul> <p>(b) Bhakti Literature:</p> <ul style="list-style-type: none"> <li>• “You Have Put Up A Show”</li> <li>• “How Can I Live by” Namdev</li> </ul>	<b>6</b>

<b>VI</b>	<b>ENGL 603</b>	<b>AEEC-4</b> <b>Business Communication</b> <b>UNIT-I Introducing Business Communication:</b> <ul style="list-style-type: none"> <li>• Basic Forms of Communication</li> <li>• Communication Models and Processes: Linear, Transitional and Interactive</li> <li>• Effective Communication</li> <li>• Principles of Effective Communication</li> </ul> <b>UNIT-II Corporate Communication:</b> <ul style="list-style-type: none"> <li>• Formal and Informal Communication: Grapevine</li> <li>• Barriers and Gateways to Communication</li> <li>• Practices in Business Communication <ul style="list-style-type: none"> <li>- Group Discussion</li> <li>- Mock Interview</li> <li>- Seminars</li> <li>- Individual and Group Presentations</li> </ul> </li> </ul> <b>UNIT-III Writing Skills and Modern Communication:</b> <ul style="list-style-type: none"> <li>• Business Letters and Memo Format</li> <li>• Good News and Bad News Letters</li> <li>• Sales Letter</li> <li>• Selection Letter</li> <li>• Fax, E-mail–Formal and Informal</li> <li>• Video Conferencing</li> </ul> <b>UNIT-IV Non-Verbal Aspects of Communication:</b> <ul style="list-style-type: none"> <li>• Body Language</li> <li>• Kinesics</li> <li>• Proxemics</li> <li>• Para Language</li> </ul> <b>Classroom Activity:</b> <ul style="list-style-type: none"> <li>• Office Etiquette – Personal Appearance, Grooming, Professional Appearance, Manners, Pleasantness, Punctuality, Listening, Preparation, Respect/Courtesy, Work Culture</li> <li>• Business Dining – Table Manners and Conventions</li> </ul>	<b>4</b>
-----------	-----------------	---	----------

		<ul style="list-style-type: none"> <li>• Managing Customer Care – Customer is King, Prompt Service, Courtesy</li> <li>• Making a Powerpoint Presentation</li> </ul> <p><b>Recommended Readings:</b></p> <ol style="list-style-type: none"> <li>1. <i>Business Communication: Concepts, Cases and Applications.</i> P. D. Chaturvedi and Mukesh Chaturvedi. Pearson Edu.</li> <li>2. <i>Business Communication.</i> Virender Kumar and Bodhraj. Kalyani Publication.</li> <li>3. <i>Business Communication and Personality Development.</i> Sri Jinkushal and Budhi Singh. V.K. Publishers.</li> <li>4. <i>Business Communication.</i> K.K. Sinha. Fourth Revised and Enlarged Edition. March 2012 ed.</li> </ol> <p><b>Suggested Readings:</b></p> <ol style="list-style-type: none"> <li>1. <i>Business Communication.</i> Mukerjee, Hory Sankar. New Delhi: OUP.</li> <li>2. <i>Business Communication.</i> 2nd ed. Raman, Meenakshi &amp; Prakash Singh. New Delhi: OUP.</li> </ol>	
--	--	--	--

**OPTIONAL DISSERTATION OR PROJECT WORK MAY BE UNDERTAKEN IN PLACE OF ONE ELECTIVE PAPER (6 CREDITS) IN THE SIXTH SEMESTER.**

**NOTE: GENERIC ELECTIVE COURSES ARE INTERDISCIPLINARY AND ARE TO BE OFFERED TO THE STUDENTS OF OTHER DISCIPLINES WHO OPT TO STUDY GENERIC ELECTIVE ENGLISH COURSES.**

APPENDIX - I

**Choice Base Credit System**

**B.A./B.Sc. Geography**

	<b>CORE COURSE (12)</b>	<b>Ability Enhancement Compulsory Course (AECC) (2)</b>	<b>Skill Enhancement Course(SEC) (4)</b>	<b>Discipline Specific Elective DSE (4)</b>	<b>Generic Elective GE (2)</b>
<b>I</b>	English/MIL-1	(English/MIL Communication / Environmental Science			
	Physical Geography (GEOGP101CC)				
	DSC- 2 A				
<b>II</b>	English/MIL-1	Environmental Science/ (English/MIL Communicatio n)			
	Human Geography (GEOGP202CC)				
	DSC- 2 B				
<b>III</b>	English/MIL-2		Regional Planning and Development (GEOGP301SEC)		
	General Cartography (Practical) (GEOGP303CC)				
	DSC- 2 C				
<b>IV</b>	English/MIL-2		Remote Sensing and GPS (GEOGP402SEC)		
	Environmental Geography (GEOGP404CC)				
	DSC- 2 D				
<b>V</b>			Geographic Information System (GEOGP503SEC)	Geography of India (GEOGP501- 1DSE) or Economic Geography (GEOGP501- 2DSE)	GE-1 Disaster Risk Reduction (GEOGP501GE)
				DSE-2 A	
<b>VI</b>			Field Techniques and Survey based Project Report (Practical) (GEOGP604SE C)	Disaster Management (GEOGP602- 1DSE) or Geography of Tourism (GEOGP602- 2DSE)	GE-2 Sustainability and Development (GEOGP602GE)
				DSE-2 B	

**Note: Practical paper will not have tutorials.**

## Skill Enhancement Course (4 Compulsory Papers)

### 1. REGIONAL PLANNING AND DEVELOPMENT (GEOGP 301 SEC)

Course Code	GEOGP 301 SEC		
Credits-4	L	T	P
	44	16	0
Course Type	Skill Enhancement		
Lectures to be Delivered	60		

**Note:** CCA and ESE scheme is same as in Paper GEOGP 101 CC

#### Course Content and Credit Scheme

Unit	Topic	Allotted Time (Hours)		
		L	T	P
I.	INTRODUCTION Concept, Need and Types of regional Planning Characteristics and Delineation of Planning Region	11	4	0
II.	Regionalization Regionalization of India for Planning Agro Ecological regionalization in India	11	4	0
III.	MODELS FOR REGIONAL PLANNING: Growth Pole Theory and Core Periphery Model	11	4	0
IV.	REGIONAL DEVELOPMENT INITIATIVES: The Success Story and the Failures of Integrated tribal development programme (ITDP) Integrated Watershed Development programmes (IWDP: DDP, DPAP) Border area development programme (BADP) Damodar Valley Corporation (DVC)	11	4	0
	<b>Total Hours</b>	<b>44</b>	<b>16</b>	<b>0</b>

L-Lecture, T-Tutorial and P-Practical and Practices

#### Reading List

- Blij H.J. De, 1971: *Geography: Regions and Concepts*, John Wiley and Sons.
- Claval P. I., 1998: *An Introduction to Regional Geography*, Blackwell Publishers, Oxford and Massachusetts.
- Friedmann J. and Alonso W. (1975): *Regional Policy-Readings in Theory and Applications*, MIT Press, Massachusetts.
- Gore C. G., 1984: *Regions in Question: Space, Development Theory and Regional Policy*, Methuen, London.
- Gore C. G., Köhler G., Reich U-P. and Ziesemer T., 1996: *Questioning Development: Essays on the Theory, Policies and Practice of Development Intervention*, Metropolis- Verlag, Marburg.
- Haynes J., 2008: *Development Studies*, Polity Short Introduction Series.
- Johnson E.A.J., 1970: *The Organization of Space in Developing Countries*, MIT Press, Massachusetts.
- Peet R., 1999: *Theories of Development*, The Guilford Press, New York.
- UNDP 2001-04: *Human Development Report*, Oxford University Press.
- World Bank 2001-05: *World Development Report*, Oxford University Press, New
- Mohan, Krishna (2005). *Addressing Regional Backwardness: An Analysis of Area Development Programmes in India*. Manak Publications New Delhi.

## 2. REMOTE SENSING AND GPS (GEOGP 402 SEC)

Course Code	GEOGP 402 SEC		
Credits-4	L	T	P
	15	0	90(45)*
Course Type	Skill Enhancement		
Lectures to be Delivered	60		

**Continuous Comprehensive Assessment (CCA) Pattern: Maximum Marks Allotted: 30**

Mid Term Test* (Marks)	Class Test/ Tutorials/Assignments (Marks)	Quiz/Seminars (Marks)	Attendance (Marks)	Total Marks
15	5	5	5	30
<b>Total</b>	<b>15</b>	<b>5</b>	<b>5</b>	

\* The pattern of examination for conducting the Mid Term Test will be same as prescribed for the end semester practical examination.

**Marks Allocation Scheme End Semester Practical (ESP) Examination System:**

Particulars	Maximum Marks	Minimum Pass Marks	Time Allotted
Theory Paper	40	4 Numerical Grade OR as per University Rules	3.00 Hrs
Written Lab work*	15		3.00 Hrs
Practical Record	10		
Viva-Voce	05		
<b>Total</b>	<b>70</b>		

**\*Note:** Use of non-programmable calculators and map stencils are allowed in the examination hall. The practical record may be evaluated on the parameters of Punctuality, Neatness, Entirety and indexing

**Paper Setting Scheme for Written Lab Work**

Section	No of Questions	Syllabus Coverage	Nature of Questions and Answers	Questions to be Attempted	Maximum Marks
A	10	Complete	Objective Type	10	10
	4	Complete	Short answer type (25-50 words)	4	6
B	2	Unit I	Choice based Long answer type	1	6
C	2	Unit II	Choice based Long answer type	1	6
D	2	Unit III	Choice based Long answer type	1	6
E	2	Unit IV	Choice based Long answer type	1	6
<b>Total</b>					<b>40</b>

### Course Content and Credit Scheme

Unit	Topic	Allotted Time (Hours)		
		L	T	P
<b>I.</b>	Remote Sensing: Definition, Development, Platforms and Types	3	0	10(5)*
<b>II.</b>	Aerial Photography: Principles, Types and Geometry	4	0	20(10)*
<b>III.</b>	Satellite Remote Sensing: Principles, EMR Interaction with Atmosphere and Earth Surface; Satellites (Landsat and IRS) and Sensors.	4	0	30(15)*
<b>IV.</b>	Visual Interpretation of Remote Sensing images: Land use/ Land Cover, Global Positioning System (GPS)–Principles and Uses	4	0	30(20)*
	<b>Total Hours</b>	<b>15</b>	<b>0</b>	<b>90(45)*</b>

L-Lecture, T-Tutorial and P-Practical

**Practical Record:** A project file consisting of any five exercises will be done from aerial photos/satellite images (scale, orientation and interpretation).



**Reading List**

1. Campbell J. B., 2007: *Introduction to Remote Sensing*, Guildford Press.
2. Jensen J. R., 2004: *Introductory Digital Image Processing: A Remote Sensing Perspective*, Prentice Hall.
3. Joseph, G. 2005: *Fundamentals of Remote Sensing*, United Press India.
4. Lilles and T.M., Kiefer R.W. and Chipman J.W., 2004: *Remote Sensing and Image Interpretation*, Wiley. (Wiley Student Edition).
5. Nag P. and Kudra, M., 1998: *Digital Remote Sensing*, Concept, New Delhi.
6. Rees W. G., 2001: *Physical Principles of Remote Sensing*, Cambridge University Press.
7. Singh R.B. and Murai S., 1998: *Space-informatics for Sustainable Development*, Oxford and IBH Pub.
8. Wolf P. R. and Dewitt B.A., 2000: *Elements of Photogrammetry: With Applications in GIS*, McGraw-Hill.

### 3. GEOGRAPHIC INFORMATION SYSTEM (GEOGP 503 SEC)

Course Code	GEOGP 503 SEC		
Credits-4	L	T	P
	15	0	90(45)*
Course Type	Skill Enhancement		
Lectures to be Delivered	60		

**Note:** The CCA and ESE & ESP is same as in paper GEOGP 402 SEC

#### Course Content and Credit Scheme

Unit	Topic	Allotted Time (Hours)		
		L	T	P
I.	<b>Introduction</b> Meaning and Scope of GIS, Components of GIS, History of Geographic Information System (GIS)	3	0	10(5)*
II.	<b>Data Types</b> GIS Data Structures: Types (Spatial and Non-Spatial), Raster and Vector Data Structure.	4	0	20(10)*
III.	<b>Spatial referencing system</b> Concept of Georeferencing, Editing and attribute data integration	4	0	30(15)*
IV.	<b>GIS based Exercises on</b> Georeferencing, Subsetting, Extraction of Land Use/Land Cover layers of any area and thematic mapping	4	0	30(20)*
	<b>Total Hours</b>	<b>15</b>	<b>0</b>	<b>90(45)*</b>

**Practical Record:** The course teacher can use Survey of India toposheets/satellite images/Google images of any area of his/her choice for practical exercises. A project file consisting of any 5 exercises will be prepared.

#### Reading List

1. Bhatta, B. (2010) *Analysis of Urban Growth and Sprawl from Remote Sensing*, Springer, Berlin Heidelberg.
2. Burrough, P.A., and McDonnell, R.A. (2000) *Principles of Geographical Information System-Spatial Information System and Geo-statistics*. Oxford University Press
3. Chauniyal, D.D. (2010) *Sudur Samvedan evam Bhogolik Suchana Pranali*, Sharda Pustak Bhawan, Allahabad
4. Heywoods, I., Cornelius, S and Carver, S. (2006) *An Introduction to Geographical Information System*. Prentice Hall.
5. Jha, M.M. and Singh, R.B. (2008) *Land Use: Reflection on Spatial Informatics Agriculture and Development*, New Delhi: Concept.
6. Nag, P. (2008) *Introduction to GIS*, Concept India, New Delhi.
7. Sarkar, A. (2015) *Practical geography: A systematic approach*. Orient Black Swan Private Ltd., New Delhi
8. Singh, R.B. and Murai, S. (1998) *Space Informatics for Sustainable Development*, Oxford and IBH, New Delhi.

## 4. FIELD TECHNIQUES & SURVEY BASED PROJECT REPORT (GEOGP 604 SEC)

<b>Course Code</b>	GEOGP 604 SEC		
<b>Credits-4</b>	<b>L</b>	<b>T</b>	<b>P</b>
	<b>15</b>	<b>0</b>	<b>90(45)*</b>
<b>Course Type</b>	<b>Skill Enhancement</b>		
<b>Lectures to be Delivered</b>	<b>60</b>		

**Note:** The CCA and ESE & ESP is same as in paper GEOGP 402 SEC

### Course Content and Credit Scheme

Unit	Topic	Allotted Time(Hrs)		
		L	T	P/FW
<b>I.</b>	<b>Introduction</b> Field Work in Geographical Studies–Role, Value and Ethics of Field-Work, Defining the Field and Identifying the Case Study–Rural /Urban/Physical /Human/ Environmental.	3	0	10(5)*
<b>II.</b>	<b>Field Techniques</b> Merits, Demerits and Selection of the Appropriate Technique; Observation (Participant/Non Participant).	4	0	20(10)*
<b>III.</b>	<b>Questionnaires</b> (Open/Closed/ Structured/Non-Structured); Interview with Special Focus on Focused Group Discussions; Space Survey (Transects and Quadrants, Constructing a Sketch).	4	0	30(15)*
<b>IV.</b>	<b>Designing the Field Report</b> Aims and Objectives, Methodology, Analysis, Interpretation and Writing the Report.	4	0	30(20)*
	<b>Total Hours</b>	<b>15</b>	<b>0</b>	<b>90(45)*</b>

FW-Field Work

#### Practical Record

- Each student will prepare an individual report based on primary and secondary data collected during field work.
- The duration of the field work should not exceed 10 days.
- The word count of the report should be about **8000 to 12,000** excluding figures, tables, photographs, maps, references and appendices.
- One copy of the report on A4 size paper should be submitted in soft/spiral binding.

#### Reading List

- Creswell J., 1994: *Research Design: Qualitative and Quantitative Approaches* Sage Publications.
- Dikshit, R.D. 2003. *The Art and Science of Geography: Integrated Readings*. Prentice-Hall of India, New Delhi.
- Evans M., 1988: "Participant Observation: The Researcher as Research Tool" in *Qualitative Methods in Human Geography*, eds. J. Eyles and D. Smith, Polity.
- Mukherjee, Neela 1993. *Participatory Rural Appraisal: Methodology and Application*. Concept Pubs. Co., New Delhi.
- Mukherjee, Neela 2002. *Participatory Learning and Action: with 100 Field Methods*. Concept Pubs. Co., New Delhi
- Robinson A., 1998: "Thinking Straight and Writing That Way", in *Writing Empirical Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences*, eds. by F. Pryczak and R. Bruce Pryczak, Publishing: Los Angeles.
- Special Issue on "Doing Fieldwork" *The Geographical Review* 91:1-2 (2001).
- Stoddard R.H., 1982: *Field Techniques and Research Methods in Geography*, Kendall/Hunt.
- Wolcott, H. 1995. *The Art of Fieldwork*. Alta Mira Press, Walnut Creek, CA.

**प्रथम वर्ष**  
**प्रयोजनमूलक हिन्दी**

**प्रश्न पत्र : Core Course B.A./B.Com.**

**SKT/HINDI -I**

**HIND101**

**Credits : 06**

**पूर्णांक : 100 (आई.सी.डी.ई.ओ.एल. एवं प्राइवेट परीक्षार्थी)**

**पूर्णांक : 70 (रेगुलर परीक्षार्थी)**

**आन्तरिक मूल्यांकन : 30**

**समय : तीन घण्टे**

निर्धारित पुस्तक : प्रयोजनमूलक हिन्दी, प्रोफेसर श्रीराम शर्मा, कमल प्रकाशन, बिलासपुर, हिमाचल प्रदेश, मूल्य 75 रु0 ।

**इकाई - 1**

- 1.1 पत्र लेखन, प्रारूपण, टिप्पण, प्रतिवेदन, पत्राचार अर्थ एवं प्रकार, व्यावहारिक, व्यावसायिक एवं सरकारी पत्र लेखन, अनुवाद : परिभाषा, विशेषता एवं उपयोगिता

**इकाई - 2**

- 2.1 मुहावरे और लोकोक्तियां, अर्थ, परिभाषा एवं विभिन्न मुहावरे तथा लोकोक्तियां  
2.2 शब्द-शुद्धि, वाक्य शुद्धि और शब्द ज्ञान (तत्सम, तद्भव, देशज तथा विदेशी)

**इकाई - 3**

- 3.1 पर्यायवाची एवं विलोम शब्द  
3.2 अनेकार्थी, वाक्य या वाक्यांश के लिए एक शब्द अथवा अनेक शब्दों के लिए एक शब्द  
3.3 देवनागरी लिपि अर्थ, नामकरण, विशेषताएं, वैज्ञानिकता, मानकीकरण एवं सुधार के उपाय

**इकाई - 4**

- 4.1 कम्प्यूटर में हिन्दी प्रयोग : कम्प्यूटर की संरचना, वर्तनी संशोधन एवं इन्टरनेट कार्यप्रणाली  
4.2 पारिभाषिक शब्दावली  
4.3 कार्यालयी हिन्दी और अनुवाद : विशेषताएं, अनुवाद-प्रक्रिया, समस्याएं एवं कठिनाइयां

**प्राश्निक के लिए निर्देश :**

- प्रश्न पत्र दो भागों में विभक्त होगा । पहला भाग अनिवार्य है, जिसमें एक प्रश्न के अन्तर्गत 14 वस्तुनिष्ठ बहुविकल्पीय प्रश्न पूछे जाएंगे । वस्तुनिष्ठ प्रश्न समान रूप से चारों इकाइयों में से पूछे जाएंगे ।  $14 \times 1 = 14$  अंक(रेगुलर, आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)
- दूसरे भाग के अन्तर्गत चार प्रश्न शत-प्रतिशत विकल्प के साथ चारों इकाइयों में से पूछे जाएंगे । सभी प्रश्न अनिवार्य होंगे । प्रत्येक प्रश्न को दो उपविभागों में विभाजित किया जाएगा, जिनमें प्रत्येक प्रश्न के लिए 7 अंक निर्धारित किए गए हैं ।

$7 + 7 = 14$  अंक (रेगुलर)

$10\frac{3}{4} + 10\frac{3}{4} = 21\frac{1}{2}$  अंक(आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)

**अंक विभाजन :**

**रेगुलर :**  $14 + 14(7+7) + 14(7+7) + 14(7+7) + 14(7+7) = 70$  अंक

**आई.सी.डी.ई.ओ.एल.एवं प्राइवेट** विद्यार्थियों के लिए दूसरे भाग के अन्तर्गत प्रत्येक प्रश्न

$21\frac{1}{2}$  अंको का होगा ।  $14 + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} = 100$  अंक

## हिंदी भाषा और संप्रेषण

प्रश्न पत्र : Ability Enhancement Compulsory Course

(AECC-2) Hindi/Eng./Skt(One out of three)

HIND104

Credits : 04

पूर्णांक : 100 (आई.सी.डी.ई.ओ.एल. एवं

प्राइवेट परीक्षार्थी)

पूर्णांक : 70 (रेगुलर परीक्षार्थी)

आन्तरिक मूल्यांकन : 30

समय : तीन घण्टे

### इकाई - 1

- 1.1 भाषा की परिभाषा, प्रकृति एवं विविध रूप
- 1.2 हिंदी भाषा की विशेषताएँ : क्रिया, विभक्ति, सर्वनाम, विश्लेषण एवं अव्यय संबंधी।
- 1.3 उपसर्ग, प्रत्यय तथा समास। पर्यायवाची शब्द, विलोम शब्द, अनेक शब्दों के लिए एक शब्द, शब्द शुद्धि, वाक्य शुद्धि, मुहावरे और लोकोक्तियाँ।

### इकाई - 2

- 2.1 हिंदी की वर्ण-व्यवस्था : स्वर एवं व्यंजन।
- 2.2 स्वर के प्रकार - ह्रस्व, दीर्घ तथा संयुक्त।
- 2.3 व्यंजन के प्रकार - स्पर्श, अन्तस्थ, ऊष्म, अल्पप्राण, महाप्राण, घोष तथा अघोष।

### इकाई - 3

- 3.1 वर्णों का उच्चारण स्थान : कण्ठ्य, तालव्य, मूर्धन्य, दन्त्य, ओष्ठ्य तथा दन्तोष्ठ्य।
- 3.2 बलाघात, संगम, अनुतान तथा संधि।

### इकाई - 4

- 4.1 भाषा संप्रेषण के चरण : श्रवण, अभिव्यक्ति, वाचन तथा लेखन।
- 4.2 हिंदी वाक्य रचना, वाक्य और उपवाक्य। वाक्य भेद। वाक्य का रूपान्तर।
- 4.3 भावार्थ और व्याख्या, आशय लेखन, विविध प्रकार के पत्र लेखन।

### प्राश्निक के लिए निर्देश :

1. प्रश्न पत्र दो भागों में विभक्त होगा। पहला भाग अनिवार्य है, जिसमें एक प्रश्न के अन्तर्गत 14 वस्तुनिष्ठ बहुविकल्पीय प्रश्न पूछे जाएंगे। वस्तुनिष्ठ प्रश्न समान रूप से चारों इकाइयों में से पूछे जाएंगे।  $14 \times 1 = 14$  अंक(रेगुलर, आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)
2. दूसरे भाग के अन्तर्गत चार प्रश्न शत-प्रतिशत विकल्प के साथ चारों इकाइयों में से पूछे जाएंगे। सभी प्रश्न अनिवार्य होंगे। प्रत्येक प्रश्न को दो उपविभागों में विभाजित किया जाएगा, जिनमें प्रत्येक प्रश्न के लिए 7 अंक निर्धारित किए गए हैं।

$7 + 7 = 14$  अंक (रेगुलर)

$10\frac{3}{4} + 10\frac{3}{4} = 21\frac{1}{2}$  अंक(आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)

### अंक विभाजन :

रेगुलर :  $14 + 14(7+7) + 14(7+7) + 14(7+7) + 14(7+7) = 70$  अंक

आई.सी.डी.ई.ओ.एल.एवं प्राइवेट विद्यार्थियों के लिए दूसरे भाग के अन्तर्गत प्रत्येक प्रश्न  $21\frac{1}{2}$  अंको का होगा।  $14 + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} = 100$  अंक

हिन्दी विभाग  
हिमाचल प्रदेश विश्वविद्यालय  
शिमला-5

बी0ए0 हिन्दी  
सेमेस्टर स्कीम  
सत्र 2016-17 से आरम्भ  
परीक्षा-योजना तथा प्रस्तावित पाठ्यक्रम



शिक्षा-वर्ष 2016 में बी0ए0 हिन्दी पाठ्यक्रम में प्रवेश लेने वाले  
विद्यार्थियों के लिए निर्धारित पाठ्यक्रम

## हिंदी व्याकरण और संप्रेषण

प्रश्न पत्र : Ability Enhancement Compulsory Course

(AECC-1)

HIND102

Credits : 04

पूर्णांक : 100 (आई.सी.डी.ई.ओ.एल. एवं

प्राइवेट परीक्षार्थी)

पूर्णांक : 70 (रेगुलर परीक्षार्थी)

आन्तरिक मूल्यांकन : 30

समय : तीन घण्टे

### इकाई - 1

- 1.1 हिंदी व्याकरण एवं रचना - संज्ञा, सर्वनाम, विशेषण, क्रिया एवं अव्यय का परिचय।
- 1.2 उपसर्ग, प्रत्यय तथा समास। पर्यायवाची शब्द, विलोम शब्द, अनेक शब्दों के लिए एक शब्द, शब्द शुद्धि, वाक्य शुद्धि, मुहावरे और लोकोक्तियां।
- 1.3 पल्लवन एवं संक्षेपण।

### इकाई - 2

- 2.1 संप्रेषण की अवधारणा और महत्त्व
- 2.2 संप्रेषण के प्रकार

### इकाई - 3

- 3.1 संप्रेषण के माध्यम
- 3.2 संप्रेषण की तकनीक

### इकाई - 4

- 4.1 अध्ययन, वाचन एवं चर्चा : प्रक्रिया एवं बोध
- 4.2 साक्षात्कार, भाषण कला एवं रचनात्मक लेखन

### प्राश्निक के लिए निर्देश :

1. प्रश्न पत्र दो भागों में विभक्त होगा। पहला भाग अनिवार्य है, जिसमें एक प्रश्न के अन्तर्गत 14 वस्तुनिष्ठ बहुविकल्पीय प्रश्न पूछे जाएंगे। वस्तुनिष्ठ प्रश्न समान रूप से चारों इकाइयों में से पूछे जाएंगे।  $14 \times 1 = 14$  अंक (रेगुलर, आई.सी.डी.ई.ओ.एल. एवं प्राइवेट)
2. दूसरे भाग के अन्तर्गत चार प्रश्न शत-प्रतिशत विकल्प के साथ चारों इकाइयों में से पूछे जाएंगे। सभी प्रश्न अनिवार्य होंगे। प्रत्येक प्रश्न को दो उपविभागों में विभाजित किया जाएगा, जिनमें प्रत्येक प्रश्न के लिए 7 अंक निर्धारित किए गए हैं।

$$7 + 7 = 14 \text{ अंक (रेगुलर)}$$

$$10\frac{3}{4} + 10\frac{3}{4} = 21\frac{1}{2} \text{ अंक (आई.सी.डी.ई.ओ.एल. एवं प्राइवेट)}$$

### अंक विभाजन :

$$\text{रेगुलर : } 14 + 14(7+7) + 14(7+7) + 14(7+7) + 14(7+7) = 70 \text{ अंक}$$

आई.सी.डी.ई.ओ.एल. एवं प्राइवेट विद्यार्थियों के लिए दूसरे भाग के अन्तर्गत प्रत्येक प्रश्न  $21\frac{1}{2}$  अंको का होगा।  $14 + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} = 100$  अंक

## कार्यालयी हिन्दी

प्रश्न पत्र : Skill Enhancement Course

(SEC-1)

HIND302

Credits : 04

पूर्णांक : 100 (आई.सी.डी.ई.ओ.एल. एवं

प्राइवेट परीक्षार्थी)

पूर्णांक : 70 (रेगुलर परीक्षार्थी)

आन्तरिक मूल्यांकन : 30

समय : तीन घण्टे

### इकाई - 1

- 1.1 हिन्दी भाषा के विभिन्न रूप-राष्ट्रभाषा, राजभाषा, जनभाषा।
- 1.2 शिक्षण माध्यम-भाषा, संचार भाषा, सर्जनात्मक भाषा, यांत्रिक भाषा।

### इकाई - 2

- 2.1 राजभाषा का स्वरूप, भारतीय संविधान में राजभाषा संबंधी परिनियमावली का सामान्य परिचय
- 2.2 राजभाषा के रूप में हिन्दी के समक्ष व्यावहारिक कठिनाइयाँ एवं संभावित समाधान।

### इकाई - 3

- 3.1 टिप्पण (नोटिंग), प्रारूपण/आलेखन (ड्राफ्टिंग), पल्लवन, संक्षेपण।
- 3.2 विभिन्न प्रकार के पत्राचार, प्रशासनिक पत्रावली की निष्पादन प्रक्रिया।

### इकाई - 4

- 4.1 पारिभाषिक शब्दावली।
- 4.2 कार्यालयी प्रयोजनों में विभिन्न यांत्रिक उपकरणों का अनुप्रयोग - कम्प्यूटर, लैपटॉप, टैबलेट, टेलीप्रिंटर, टेलेक्स, वीडियो कान्फ्रेंसिंग।

### प्राश्निक के लिए निर्देश :

1. प्रश्न पत्र दो भागों में विभक्त होगा। पहला भाग अनिवार्य है, जिसमें एक प्रश्न के अन्तर्गत 14 वस्तुनिष्ठ बहुविकल्पीय प्रश्न पूछे जाएंगे। वस्तुनिष्ठ प्रश्न समान रूप से चारों इकाइयों में से पूछे जाएंगे।  $14 \times 1 = 14$  अंक(रेगुलर, आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)
2. दूसरे भाग के अन्तर्गत चार प्रश्न शत-प्रतिशत विकल्प के साथ चारों इकाइयों में से पूछे जाएंगे। सभी प्रश्न अनिवार्य होंगे। प्रत्येक प्रश्न को दो उपविभागों में विभाजित किया जाएगा, जिनमें प्रत्येक प्रश्न के लिए 7 अंक निर्धारित किए गए हैं।

$$7 + 7 = 14 \text{ अंक (रेगुलर)}$$

$$10\frac{3}{4} + 10\frac{3}{4} = 21\frac{1}{2} \text{ अंक(आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)}$$

### अंक विभाजन :

$$\text{रेगुलर : } 14 + 14(7+7) + 14(7+7) + 14(7+7) + 14(7+7) = 70 \text{ अंक}$$

आई.सी.डी.ई.ओ.एल.एवं प्राइवेट विद्यार्थियों के लिए दूसरे भाग के अन्तर्गत प्रत्येक प्रश्न  $21\frac{1}{2}$  अंको का होगा।  $14 + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} = 100$  अंक



## अनुवाद विज्ञान

प्रश्न पत्र : Skill Enhancement Course

(SEC-2)

HIND402

Credits : 04

पूर्णांक : 100 (आई.सी.डी.ई.ओ.एल. एवं

प्राइवेट परीक्षार्थी)

पूर्णांक : 70 (रेगुलर परीक्षार्थी)

आन्तरिक मूल्यांकन : 30

समय : तीन घण्टे

### इकाई - 1

- 1.1 अनुवाद का तात्पर्य, अनुवाद के विभिन्न प्रकार - भाषान्तरण, सारानुवाद तथा रूपान्तरण में साम्य-वैषम्य। अनुवाद के प्रमुख प्रकार-कार्यालयी, साहित्यिक, ज्ञान-विज्ञानपरक, विधिक, वाणिज्यिक।
- 1.2 अनुवाद के शिल्पगत भेद अविकल अनुवाद (लिटरेल), भावानुवाद/छायानुवाद, आशु अनुवाद, डबिंग, कम्प्यूटर अनुवाद।

### इकाई - 2

- 2.1 साहित्यिक अनुवाद के प्रमुख रूप-काव्यानुवाद, कथानुवाद, नाट्यानुवाद।
- 2.2 अनुवाद में पर्यवेक्षण (वेटिंग) की भूमिका।

### इकाई - 3

- 3.1 वैज्ञानिक तकनीकी शब्दावली का अनुवाद, मुहावरों/लोकोक्तियों का अनुवाद, संक्षिप्ताक्षरों तथा कूटपदों का अनुवाद, आंचलिक शब्दावली का अनुवाद, व्यंजनापरक लाक्षणिक पद प्रयोगों का अनुवाद।
- 3.2 अनुवाद की सम्पादन प्रविधि।
- 3.3 अनुवादक की अर्हता और सफल अनुवाद के अभिलक्षण।

### इकाई - 4

- 4.1 विश्व भाषाओं की प्रमुख कृतियों के हिन्दी अनुवाद एवं हिन्दी की प्रमुख कृतियों के विश्वभाषाओं में किये गये अनुवाद।
- 4.2 भारत में अनुवाद प्रशिक्षण के प्रमुख केन्द्र, अनुवाद के राष्ट्रीय प्राधिकरण के गठन की आवश्यकता।
- 4.3 हिन्दी अनुवाद का भविष्य।

### प्राश्निक के लिए निर्देश :

1. प्रश्न पत्र दो भागों में विभक्त होगा। पहला भाग अनिवार्य है, जिसमें एक प्रश्न के अन्तर्गत 14 वस्तुनिष्ठ बहुविकल्पीय प्रश्न पूछे जाएंगे। वस्तुनिष्ठ प्रश्न समान रूप से चारों इकाइयों में से पूछे जाएंगे।  $14 \times 1 = 14$  अंक(रेगुलर, आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)
2. दूसरे भाग के अन्तर्गत चार प्रश्न शत-प्रतिशत विकल्प के साथ चारों इकाइयों में से पूछे जाएंगे। सभी प्रश्न अनिवार्य होंगे। प्रत्येक प्रश्न को दो उपविभागों में विभाजित किया जाएगा, जिनमें प्रत्येक प्रश्न के लिए 7 अंक निर्धारित किए गए हैं।

$$7 + 7 = 14 \text{ अंक (रेगुलर)}$$

$$10\frac{3}{4} + 10\frac{3}{4} = 21\frac{1}{2} \text{ अंक(आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)}$$

### अंक विभाजन :

$$\text{रेगुलर : } 14 + 14(7+7) + 14(7+7) + 14(7+7) + 14(7+7) = 70 \text{ अंक}$$

आई.सी.डी.ई.ओ.एल.एवं प्राइवेट विद्यार्थियों के लिए दूसरे भाग के अन्तर्गत प्रत्येक प्रश्न

$$21\frac{1}{2} \text{ अंको का होगा। } 14 + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} = 100 \text{ अंक}$$

## पाँचवां सत्र

### रंग आलेख एवं रंगमंच

प्रश्न पत्र : Skill Enhancement Course

(SEC-3)

HIND501

Credits : 04

पूर्णांक : 100 (आई.सी.डी.ई.ओ.एल. एवं प्राइवेट परीक्षार्थी)

पूर्णांक : 70 (रेगुलर परीक्षार्थी)

आन्तरिक मूल्यांकन : 30

समय : तीन घण्टे

#### इकाई - 1

- 1.1 नाटक के प्रमुख प्रकार और उनका रचना विधान-पूर्णांकी, एकांकी, लोकनाटक, प्रहसन, काव्यनाटक, नकुड़ नाटक, प्रतीकनाटक, भावनाटक, पाठ्यनाटक, रेडियो नाटक, टीवी नाटक।

#### इकाई - 2

- 2.1 हिन्दी नाट्यशास्त्र और नाट्य लेखन का इतिहास  
2.2 हिन्दी नाटक की प्रमुख प्रवृत्तियाँ - सामाजिक, सांस्कृतिक, ऐतिहासिक, समस्यामूलक तथा एबसर्ड नाटक।

#### इकाई - 3

- 3.1 हिन्दी के प्रमुख नाटक और नाटककार।  
3.2 हिन्दी रंगमंच के प्रमुख रूप-1. शौकिया मंच 2. व्यावसायिक मंच 3. सरकारी मंच।  
3.3 हिन्दी क्षेत्र की प्रसिद्ध रंगशालाएं तथा संस्थाएं।

#### इकाई - 4

- 4.1 रंग शिल्प प्रशिक्षण, रंग स्थापत्य, रंग सज्जा, रंग दीपन, ध्वनि व्यवस्था एवं प्रसाधन, निर्देशन एवं अभिनय। रंगमंचीय भाषा की विशेषताएं।  
4.2 रंग आलेख की प्रविधि - वस्तुविधान, पात्र परिकल्पना, परिस्थिति योजना, संवाद लेखन का वैशिष्ट्य, रंग निर्देशों की उपयोगिता।  
4.3 रंग समीक्षा का महत्त्व।

#### प्राशनिक के लिए निर्देश :

1. प्रश्न पत्र दो भागों में विभक्त होगा। पहला भाग अनिवार्य है, जिसमें एक प्रश्न के अन्तर्गत 14 वस्तुनिष्ठ बहुविकल्पीय प्रश्न पूछे जाएंगे। वस्तुनिष्ठ प्रश्न समान रूप से चारों इकाइयों में से पूछे जाएंगे।  $14 \times 1 = 14$  अंक(रेगुलर, आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)  
2. दूसरे भाग के अन्तर्गत चार प्रश्न शत-प्रतिशत विकल्प के साथ चारों इकाइयों में से पूछे जाएंगे। सभी प्रश्न अनिवार्य होंगे। प्रत्येक प्रश्न को दो उपविभागों में विभाजित किया जाएगा, जिनमें प्रत्येक प्रश्न के लिए 7 अंक निर्धारित किए गए हैं।

$7 + 7 = 14$  अंक (रेगुलर)

$10\frac{3}{4} + 10\frac{3}{4} = 21\frac{1}{2}$  अंक(आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)

#### अंक विभाजन :

रेगुलर :  $14 + 14(7+7) + 14(7+7) + 14(7+7) + 14(7+7) = 70$  अंक

आई.सी.डी.ई.ओ.एल.एवं प्राइवेट विद्यार्थियों के लिए दूसरे भाग के अन्तर्गत प्रत्येक प्रश्न  $21\frac{1}{2}$  अंको का होगा।  $14 + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} = 100$  अंक

## समाचार संकलन और लेखन

प्रश्न पत्र : Skill Enhancement Course

(SEC-4)

HIND602

Credits : 04

पूर्णांक : 100 (आई.सी.डी.ई.ओ.एल. एवं

प्राइवेट परीक्षार्थी)

पूर्णांक : 70 (रेगुलर परीक्षार्थी)

आन्तरिक मूल्यांकन : 30

समय : तीन घण्टे

### इकाई - 1

- 1.1 समाचार : अवधारणा, परिभाषा, बुनियादी तत्त्व, समाचार और संवाद, संरचना (घटक), समाचार मूल्य। समाचार के स्रोत।
- 1.2 समाचार संग्रह-पद्धति और लेखन-प्रक्रिया : सिद्धान्त और मार्गदर्शक बातें। विकासशील और जनरुचि की दृष्टियाँ।

### इकाई - 2

- 2.1 समाचार का वर्गीकरण। खोजी, व्याख्यात्मक, अनुवर्तन समाचार।
- 2.2 संवाददाता : भूमिका, अर्हता, श्रेणियाँ, प्रकार्य एवं व्यवहार-संहिता।
- 2.3 रिपोर्टिंग के क्षेत्र और प्रकार : विधायिका, न्यायपालिका, मंत्रालय और प्रशासन, विदेश, रक्षा, राजनीति, अपराध और न्यायालय, दुर्घटना एवं नैसर्गिक आपदा, ग्रामीण, कृषि, विकास, अर्थ एवं वाणिज्य, बैठकें एवं सम्मेलन, संगोष्ठी, पत्रकार वार्ता, साहित्य एवं संस्कृति, विज्ञान, अनुसंधान एवं तकनीकी विषय, खेलकूद, पर्यावरण, मानवाधिकार और अन्य सामाजिक विषयों और क्षेत्रों से सम्बन्धित रिपोर्टिंग।

### इकाई - 3

- 3.1 इलेक्ट्रॉनिक माध्यमों से प्राप्त समाचारों का पुनर्लेखन।
- 3.2 लीड : अर्थ, प्रकार, विशेषता, महत्त्व।

### इकाई - 4

- 4.1 शीर्षक : अर्थ, प्रकार, लिखने की कला, महत्त्व।
- 4.2 रिपोर्टिंग : कला और विज्ञान के रूप में विश्लेषण, वस्तुपरकता और भाषा-शैली।

### प्राश्निक के लिए निर्देश :

1. प्रश्न पत्र दो भागों में विभक्त होगा। पहला भाग अनिवार्य है, जिसमें एक प्रश्न के अन्तर्गत 14 वस्तुनिष्ठ बहुविकल्पीय प्रश्न पूछे जाएंगे। वस्तुनिष्ठ प्रश्न समान रूप से चारों इकाइयों में से पूछे जाएंगे।  $14 \times 1 = 14$  अंक(रेगुलर, आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)
2. दूसरे भाग के अन्तर्गत चार प्रश्न शत-प्रतिशत विकल्प के साथ चारों इकाइयों में से पूछे जाएंगे। सभी प्रश्न अनिवार्य होंगे। प्रत्येक प्रश्न को दो उपविभागों में विभाजित किया जाएगा, जिनमें प्रत्येक प्रश्न के लिए 7 अंक निर्धारित किए गए हैं।

$$7 + 7 = 14 \text{ अंक (रेगुलर)}$$

$$10\frac{3}{4} + 10\frac{3}{4} = 21\frac{1}{2} \text{ अंक(आई.सी.डी.ई.ओ.एल.एवं प्राइवेट)}$$

### अंक विभाजन :

$$\text{रेगुलर : } 14 + 14(7+7) + 14(7+7) + 14(7+7) + 14(7+7) = 70 \text{ अंक}$$

आई.सी.डी.ई.ओ.एल.एवं प्राइवेट विद्यार्थियों के लिए दूसरे भाग के अन्तर्गत प्रत्येक प्रश्न  $21\frac{1}{2}$  अंको का होगा।  $14 + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} + 21\frac{1}{2} = 100$  अंक

## **ANNEXURE I**

### **Structure of B. A. (Honours) History Courses under Choice Based Credit System (CBCS)**

#### **CORE COURSE (14)**

- Paper I: History of India-I
- Paper-II: Social Formations and Cultural Patterns of the Ancient World
- Paper III: History of India-II
- Paper IV: Social Formations and Cultural Patterns of the Medieval World
- Paper V: History of India-III (c. 750-1206)
- Paper VI: Rise of the Modern West-I
- Paper VII: History of India-IV (c. 1206-1550)
- Paper VIII: Rise of the Modern West -II
- Paper IX: History of India-V (c. 1550-1605)
- Paper X: History of India-VI (c. 1750-1857)
- Paper XI: History of Modern Europe-I (c. 1780-1939)
- Paper XII: History of India-VII (c. 1605-1750)
- Paper XIII: History of India-VIII (c. 1857-1950)
- Paper XIV: History of Modern Europe- II (1780-1939)

#### **Discipline Specific Elective (Any Four)**

- Paper I: History of United States of America-I (C. 1776-1945)
- Paper II: History of United States of America-II (C. 1776-1945)
- Paper III: History of The USSR-I (c. 1917-1964)
- Paper IV: History of The USSR-II (c. 1917-1964)
- Paper V: History of Africa (c. 1500 - 1960s)
- Paper VI: History of Latin America (c. 1500-1960s)
- Paper VII: History of Southeast Asia-The 19th Century
- Paper VIII: History of Southeast Asia-The 20th Century
- Paper IX-History of Modern East Asia-I (c. 1840-1919)
- Paper X-History of Modern East Asia-II (c. 1868-1945)

#### **Generic Elective (Interdisciplinary (Any Four)**

- Paper-I: Environmental Issues in India
- Paper-II: Making of Contemporary India
- Paper-III: Delhi: Ancient
- Paper-IV: History of Himachal Pradesh, 1815-1972
- Paper-V: Delhi: Medieval
- Paper-VI: Tribes in Indian History
- Paper-VII: Delhi: Modern
- Paper-VIII: Issues in Contemporary World
- Paper-IX: Research Methodology in History
- Paper- X: Silk Road in History

#### **Ability Enhancement Course (AEC)**

- Compulsory-II Papers
- Environmental Science
- English/ MIL

Perry Anderson, Lineages of the Absolutist State, Verso, London 2013  
 John Merriman, A History of Modern Europe, New York, 2010

### **Generic Elective (Inter-Disciplinary) Any Two**

#### **Paper-1: Women Studies in India.**

##### **I. Basic Concepts & Theories:**

- Defining Gender,
- Patriarchy: Ideology & Practice
- Relationship between Gender, Caste, Class, Religion & Politics

##### **II. Emergence of Women Studies in India**

##### **III. Gender & Social History:**

- Family & Marriage
- Women's Question in the 19th century
- Women's Movement in Colonial & Post Colonial periods in India

##### **IV. Gender, Law & Politics:**

- Political participation
- Violence against women & Preventive laws

##### **V. Gender, Development & Culture:**

- Issues of labour & Health
- Access to resources
- Gender audit

##### **References**

Kamla Bhasin, Understanding Gender  
 Kamla Bhasin, What is Patriarchy?  
 Madhu Vij, et al, Women Studies in India, A journey of 25 Years, Rawat, 2014.  
 Kumkum Sangari & Sudesh Vaid, Recasting Women, Essay in Colonial History, Kali for women, Reprint, 2006.  
 Sushila Kaushik, Panchayati Raj in Action: Challenges to Women's Role, Delhi, 1996.  
 Nivedita Menon, Gender & Politics in India, New Delhi, OUP, 1999.  
 Women in Print –The change over the last half century in reporting on women & Gender Issues in Indian newspapers, A study by UNIFEM, by Shri Venkatram, 2003

#### **Paper-2: Women in Politics and Governance**

##### **I. Theoretical Perspectives on Politics & Governance**

##### **II. Pre-Colonial Period: Women of learning & ruling classes**

##### **III. Colonial Period: Leaders in reforming activities, politics and national movement**

##### **IV. Electoral Politics, Women as voters & elected Representatives**

##### **V. Case Studies at local government levels, State Assemblies & Parliament.**

##### **References:**

Raj Kumar, Women in Politics, Anmol Publishers, New Delhi, 2000  
 Raj Kumar, Women & Leadership, 2000.  
 L.M.Sanghvi, Democracy & the Rule of Law, Ocean Books, Pvt Ltd, New Delhi, 2002.

#### **Paper-3: Some Perspectives on Women's Rights in India**

##### **I. Definition of Human Rights: UN Conventions & Indian Context**

##### **II. Indian Constitution & Women's Rights**

##### **III. Preventive Acts: Minimum Wage Act, 1948, Family Courts**

Act, 1986, Dowry Prohibition Act, 1961, Immoral Traffic Prevention Act, 1986, Domestic Violence Act, PNDT Act, 1994, latest measures

#### **IV. Issues of violence against women and remedial measures**

#### **V. Role of Non Government Institutions**

#### **VI. Present Status:** Issues of enabling & empowering modalities.

#### **References**

Bina Agarwal, Field of Her Own, New Delhi, Kali for Women,  
Urvashi Butalia & T. Sarkar, ed, Women & Hindu Rights, New Delhi, Kali for Women, 1996.  
Zoya Hasan, ed, Forging Identities: Gender, Communities & Patriarchies, EPW, December, 1995.

### **Paper-4: Gender and Education in India**

#### **I. Historiographical Trends**

#### **II. Education in Early and medieval times:** Formal & Informal

#### **III. Colonial Period:** Socio-religious reform women & education for females.

#### **IV. Role of School and Colleges in Colonial and Post Colonial Period.**

#### **V. Contours of Female literacy since 1950,**

#### **VI. Present Scenario: Education as a tool of empowerment.**

#### **References:**

Aparna Basu, Growth of Education and Political Development in India, 1898-1920, 1974  
Aparna Basu, Bharati Ray, Women Struggle, A History of the All India Women's Conference, 2002.  
Ram Nath Sharma Rajender Nath Sharma, History of Education in India, Atlantic Publishers, 1996.  
Radha Kumar, A History of Doing.  
Usha Sharma, Women Education in Modern India.

### **Paper-5: History of Indian Journalism: Colonial and Post Colonial Period**

#### **I. Pre-colonial History of written records and modalities of dissemination**

#### **II. Advent of Print media:** Imperialist Ideologies

#### **III. Nationalism & Print Culture:** Selective study of prominent newspapers: Tribune, Amrita Bazar Patrika, and Hindustan Times

#### **IV. Writing & Reporting: Field Work**

#### **References**

Natrajan.J, History of Indian Journalism, Vol. –ii of Press Commission Report, New Delhi, 1954  
Natrajan. J, A History of the Press in India, Asian Publishing House, Bombay, 1962  
Ghosh, Hamendra Prasad, Newspapers in India, University of Calcutta, 1952  
Ananda. Prakash, A History of the Tribune, A Centenary Publication by the Tribune Trust, 1986

### **Paper-6: Cultures in the Indian Subcontinent**

#### **1. Definitions of Culture and its various aspects.**

##### **1. Languages and Literature**

Sanskrit: Kavya – Kalidasa's Ritusamhara; Prakrit: Gatha  
Saptasati, Development of vernacular language and literature;  
Indo-Persian Literature: Amir Khusro's works: Urdu poetry and prose: Ghalib.

## 2. Performing Arts

a) Hindustani, (b) Carnatic classical Music, (c) Devotional music: bhakti and Sufi: Classical and Folk Dance, Theatre: Classical, Folk, Colonial and Modern

## 3. Architecture: Meanings form and Function

(a) Rock-cut-Mamallapuram (b) structural and temple architecture- Khajuraho complex and Tanjavur temple; (c) fort of Dalulatabad or Chittor forts; (d) palace-dargah at Fatehpur Sikri; (e) Lutyen's Delhi.

## 4. 1. Perceptions of Visual Past and Present

### 2. Sculptures and Painting

(a) Silpashastric normative tradition: (b) Classicism and Narrative and Sculptural, Mural Fresco paintings: (c) post Classicism: Pallava , Cola; (d) medieval idiom and Mughal paintings, painters and illustrated texts: (e) Modern and company school, Ravi Varma, Bengal School, Amrita Shergil and Progressive Artists.

## 5. Popular Culture

-Folk Lore and Oral tradition of Kathas, narratives, legends and proverbs, Linkages of bardic and literary traditions.  
- Festivals, fairs and fasts; Links with tirtha, pilgrimage and localities.  
-Textile and Crafts; the Culture of Food.

## 6. Communication, Patronage and Audiences

-Court Merchant groups and communities.  
-Culture as Communication.  
-Nationalism and the issue of Culture; Institutions of Cultural Practices Colonial and Post Colonial

## SUGGESTED READINGS:

Asher Catherine, (ed.), Perceptions of India's Visual Past, AIFS, Delhi, 1994  
Asher Catherine, Architecture of Mughal India  
Basham A.L., The Wonder that was India, Volume I, New Delhi  
Brown Percy, Indian Architecture, Buddhist Hindu and Islamic, Vol.I, II, Mumbai, 1956  
Chandra Prainod, ed, Studies in Indian Temple Architecture; Chapter 1. AIFS, 1975.  
Deva, B.C., An introduction to Indian Music, Delhi, 1973.  
Maxwell, T.S., Image: Text and Meaning: Gods of South Asia, OUP, Delhi  
Tillotson G, Havelis of Rajasthan.  
Zimmer, H., Myths and Symbolism in Indian Art and Civilization, Princeton Press, New Jersey, n.d.  
Cohn. Bernard, India: The Social Anthropology of a Civilization in Bernard Cohn Omnibus, OUP, 2004  
Vatasayana Kapila; Indian Classical Dance, Publications Divisions, New Delhi, 1974 (in Hindi Translation also)  
K. T. Achaya, A Historical Dictionary of Indian Food, OUP.  
Banerjee J.N., The Development of Hindu Iconography, Calcutta, 1956  
Bussagli M and Srivaramamurthy c., 5000 Years of Indian Art, New York, n. d.  
History and Culture of the Indian People, Bharatiya Vidya Bhavan Series.  
Huntington Susan L, The Art of Ancient India, Tokyo New York, 1985.  
Kramrisch, Stella, The Art of India, Orient Book Depot, Delhi, 1987.  
Miller Barbara Stoler: The Powers of Art: Patronage in Indian Culture, OUP, Delhi 1992.  
Mitter Partha: Much Maligned Monsters, Oxford, 1977.  
Mitter Partha: Art and Nationalism in Colonial India, OUP, and Delhi.

Mukherji, Folk Art of India

Ramanujan, A.K., Collected Papers, OUP.

Richman, Paula, Many Ramayanas OUP.

Rizvi, S.A.A., The Wonder that Was India: Volume II, New Delhi.

Varadpande M.L., History of Indian Theatre: Invitation to Indian Theatre, New Delhi, 1987.

Traditional Indian Theatre: Multiple Streams, Hindi translation: Paramparik Bharatiya

Rangmanch, Anant Dharayed, NBT, New Delhi 1995.

## **Ability Enhancement Elective Course (AEEC) Any Four**

### **Paper-1: Historical Tourism: Theory and Practice**

#### **I. Defining Heritage**

- Art and Architecture in India: An overview:

-Field Work: Visit to historical sites and Museums

#### **II. Understanding Built Heritage:**

-Stupa Architecture

-Temple Architecture

-Indo Persian Architecture, Forts, Palaces, Mosques

-Colonial Architecture

-Present day structures

#### **III. Field Work: Visit to site and Conducting of research**

#### **IV. Modalities of conducting tourism**

##### **References:**

Sunil Kumar, The Present in Delhi's Past, Delhi, Gyan Publishing House, 2002.

Peter Howard, Heritage: Management, Interpretation, Identity, and London, 2003.

V.S Agarwal, Indian Art, Varanasi, Prithvi Prakasahan, 1972.

Percy Brown, Indian Architecture, Bombay, D.B.Taraporevala Sons & Co, 1940.

James Harle, The Art & Architecture of the Indian Subcontinent, Harmondsworth, Penguin, 1988.

S.K.Bhowmik, Heritage Management: Care, Understanding & Appreciation of Cultural Heritage, Jaipur, 2004.

### **Paper-2: Museums and Archives in India**

#### **I. Definitions**

**II. History of setting up of Museums and Archives:** Some case studies

**III. Field Work;** Studying of structures & Functions

#### **IV. Training & Employment**

##### **References**

G.Edson & Dean David, Handbook for Museum, London, Routledge, 1986

John Ridener, From Folders to Post Modernism: A Concise History of Archival Theory, 2009

### **Paper-3: Indian History and Culture**

#### **I. Environment; Culture, Tradition & Practices:**



- Historical overview
- Oral & codified information on medicinal Plants
- Water & Water Bodies
- Fieldwork

## **II. Urbanization and Urbanism:**

- Issues of settlements & Landscapes
- Social differentiations
- Communication networks

## **III. Social inequality and Gender:**

- Status within Households: An overview
- Present context
- Issues of Violence
- Employment, distribution of resources

## **IV. Cultural Heritage:**

- Main components
- Built Heritage
- Historical Tourism

## **V. Cultural Forms and Cultural Expressions:**

- Performing Arts
- Fairs & Festivals
- Fieldwork

## **References**

- Indu Banga, ed., The City in Indian History: Urban Demography, Society & Polity, Delhi, Manohar, 1991
- Koch, E. Mughal Art & Imperial Ideology
- Radha Kumar, History of Doing: An Illustrated Account of Movements for Women's Rights & Feminism in India 1880-1990, Zubaan, 2007
- V. Vasudev, Fairs & Festivals, Incredible India Series, 2007
- V. Singh, The Human Footprint on Environment: Issues in India, New Delhi, and Macmillan, 2012
- B. Parikh, Composite Culture in a multicultural Society, Delhi, NBT, 2007
- N. Mehta, Introduction: Satellite Television, Identity & Globalization in Contemporary India in N. Mehta, ED, Television in India, New York, Routledge, 2008
- R.C. Thakran & Sheo Dutt, ed, Bhartiya Upmahadup ki Sanskritiyan, University of Delhi

## **Paper-4: Ethnographic Practices in India: Tradition of Embroidery, Textile making, Knitting, Handicrafts**

### **I. History: Evidences and writings;**

- Early India
- Medieval period
- Colonial and Post Colonial

### **II. Contemporary Practices:**

- North
- West
- East
- South

**III. Field work:**

- Practitioners and Issues of sustenance
- Codification of Information
- Relationship between market & Conservation

**References:**

Textile Museum, Ahmadabad  
 Sanskrit Museum of Indian Textiles, Gurgaon  
 Indian Mirror.com,  
 Local & National Museums, Dharohar Museum, Kurukshetra  
 University,  
 Museum, Punjabi University, Patiala

**Paper-5: An Introduction to Archaeology****I. Definition & Components****II. Historiographical Trends****III. Research Methodologies****IV. Definition of Historical Sites & Explorations****V. Field Work & Tools of research****VI. Documentation, Codification, Classification, Analysis of findings and publications****References:**

John. A. Bintliff, A Companion to Archaeology  
 D.R. Chakrabarti, A History of Indian Archaeology: From the Beginning to 1947, New Delhi, Manohar, 1988  
 M. Hall & W.S.W. Silliman, Historical Archaeology, USA, Blackwell, 2006  
 Mathew Johnson, Archaeological Theory: An Introduction, Blackwell Publishing, New Edition, 2010  
 Published Works by ASI

**Paper-6: Documentation and Visual Culture****I. Conceptual Framework****II. Visual Culture: Colonial and Post Colonial Contexts****III. Politics of Documentation****IV. Methods of Documentation: Photographs, Films, Videos and digital****V. Fieldwork, Internship and Training****References:**

Gayatri Sinha, ed, Art & Visual Culture in India: 1857-2007  
 Geeta Kapoor, When was Modernism: Essays on Cultural Practices in India, Delhi, Tullika Publications, 2000  
 Publications by Sarai, CSDS, Rajpur Road, Delhi

## **Paper-7: Orality and Oral Culture in India**

### **I. Defining orality**

### **II. History & Historiography of Orality**

### **III. Life Histories: Sociological Aspects**

### **IV. Research Methodologies**

### **V. Documentation: Written & Visual**

#### **References**

- David Henige, *Oral Historiography*, London, 1982.
- Humphries, *The Handbook of Oral History*.
- H. Roberts, ed., *Doing Feminist Research*, Routledge & Kegan Paul, London, 1981.
- Jan Vansina, *Oral Tradition*, Chicago, 1965.
- Jan Vansina, *Oral Tradition as History*, University of Wisconsin Press, Madison, 1985.
- John Miles Foley, *Oral Formulaic-Theory: An Introduction & Annotated Bibliography*, New York & London: Garland, 1985.
- Veena Das, ed, *Mirrors of Violence: Communities, Riots & Survivors in South Asia*, Delhi, OUP, 1990.
- Prasad M. Mahadeva, *Ideology of the Hindi Film: A Historical Construction*, Delhi, OUP, 1998.
- Srirupa Roy, 'The Post Colonial State & Visual Representations of India', *Contributions to Indian Sociology*, 2006, 36, 1&2: 233-263.

## ANNEXURE I

### SEMESTER-WISE COURSES, CODES AND CREDITS FOR CHOICE BASED CREDIT SYSTEM (CBCS) B. A. HONOURS HISTORY. TOTAL CREDITS=148

#### CORE COURSES (14)

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	History of India-I	1	<b>HIST(H)101</b>	6 (L-5,T-1)	70	30	100
2	History	Social Formations and Cultural Patterns of the Ancient World	1	<b>HIST(H)102</b>	6 (L-5,T-1)	70	30	100
3	History	History of India-II	2	<b>HIST(H)103</b>	6 (L-5,T-1)	70	30	100
4	History	Social Formations and Cultural Patterns of the Medieval World	2	<b>HIST(H)104</b>	6 (L-5,T-1)	70	30	100
5	History	History of India-III (c. 750-1206)	3	<b>HIST(H)105</b>	6 (L-5,T-1)	70	30	100
6	History	Rise of the Modern West-I	3	<b>HIST(H)106</b>	6 (L-5,T-1)	70	30	100
7	History	History of India-IV (c. 1206-1550)	3	<b>HIST(H)107</b>	6 (L-5,T-1)	70	30	100
8	History	Rise of the Modern West-II	4	<b>HIST(H)108</b>	6 (L-5,T-1)	70	30	100
9	History	History of India-V (c. 1550-1605)	4	<b>HIST(H)109</b>	6 (L-5,T-1)	70	30	100
10	History	History of India-VI (c. 1750-1857)	4	<b>HIST(H)110</b>	6 (L-5,T-1)	70	30	100
11	History	History of Modern Europe-I (c.1780-1939)	5	<b>HIST(H)111</b>	6 (L-5,T-1)	70	30	100
12	History	History of India-VII (1605-1750)	5	<b>HIST(H)112</b>	6 (L-5,T-1)	70	30	100
13	History	History of India-VIII (1857-1950)	6	<b>HIST(H)113</b>	6 (L-5,T-1)	70	30	100

14	History	History of Modern Europe-II (1780-1939)	6	<b>HIST(H)114</b>	6 (L-5,T-1)	70	30	100
----	---------	---	---	-------------------	-------------	----	----	-----

**DISCIPLINE SPECIFIC ELECTIVE COURSES (ANY FOUR): TWO PAPERS IN V SEMESTER AND TWO IN VI SEMESTER**

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	History of the United States of America-I (C. 1776-1945)	5	<b>HIST(H)115</b>	6 (L-5,T-1)	70	30	100
2	History	History of the United States of America-II (C 1776-1945)	5	<b>HIST(H)116</b>	6 (L-5,T-1)	70	30	100
3	History	History of the USSR-I (C. 1917-1964)	5	<b>HIST(H)117</b>	6 (L-5,T-1)	70	30	100
4	History	History of the USSR-II (C. 1917-1964)	5	<b>HIST(H)118</b>	6 (L-5,T-1)	70	30	100
5	History	History of Africa (C. 1500-1960s)	5	<b>HIST(H)119</b>	6 (L-5,T-1)	70	30	100
6	History	History of Latin America (C. 1500-1960s)	6	<b>HIST(H)120</b>	6 (L-5,T-1)	70	30	100
7	History	History of Southeast Asia-the 19th Century	6	<b>HIST(H)121</b>	6 (L-5,T-1)	70	30	100
8	History	History of Southeast Asia-the 20th Century	6	<b>HIST(H)122</b>	6 (L-5,T-1)	70	30	100
9	History	History of Modern East Asia-I (C. 1840-1919)	6	<b>HIST(H)123</b>	6 (L-5,T-1)	70	30	100
10	History	History of Modern East Asia-II (C. 1868-1945)	6	<b>HIST(H)124</b>	6 (L-5,T-1)	70	30	100

**NOTE: The student has an option to select only two papers in the V semester out of the Five Papers (NUMBERED ABOVE AS 1 TO 5, CODES NO HIST(H) 115 TO 119) and two papers in the VI semester out Five Papers (NUMBERED ABOVE AS 6 TO 10, CODES NO HIST(H) 116 TO 124).**

**GENERIC ELECTIVE (INTERDISCIPLINARY): (ANY FOUR). ONE PAPER EACH IN I, II, III AND IV SEMESTER**

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	Environmental Issues in India	1	<b>HIST(H)125</b>	6 (L-5,T-1)	70	30	100
2	History	Making of Contemporary India	1	<b>HIST(H)126</b>	6 (L-5,T-1)	70	30	100
3	History	Delhi: Ancient	1	<b>HIST(H)127</b>	6 (L-5,T-1)	70	30	100
4	History	History of Himachal Pradesh, 1815-1972	2	<b>HIST(H)128</b>	6 (L-5,T-1)	70	30	100
5	History	Delhi: Medieval	2	<b>HIST(H)129</b>	6 (L-5,T-1)	70	30	100
6	History	Tribes in Indian History	2	<b>HIST(H)130</b>	6 (L-5,T-1)	70	30	100
7	History	Delhi: Modern	3	<b>HIST(H)131</b>	6 (L-5,T-1)	70	30	100
8	History	Issues in Contemporary World	3	<b>HIST(H)132</b>	6 (L-5,T-1)	70	30	100
9	History	Research Methodology in History	4	<b>HIST(H)133</b>	6 (L-5,T-1)	70	30	100
10	History	Silk Road in History	4	<b>HIST(H)134</b>	6 (L-5,T-1)	70	30	100

**NOTE: The student has an option to select only one paper each in the I and II semesters out of three Papers (NUMBERED ABOVE AS 1 TO 3 AND 4 TO 6, CODES NO HIST(H) 125 TO 127 AND 128 TO 130), and one paper each also in the III and IV semesters out of two Papers (NUMBERED ABOVE AS 7 TO 8 AND 9 AND 10 CODES NO HIST(H) 131-132 AND 134-135).**

**SKILL ENHANCEMENT COURSES (SEC): ANY TWO: ONE EACH IN III AND IV SEMESTER**

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	Understanding Heritage	3	<b>HIST(H)135</b>	4 (L-2, T-2)	70	30	100
2	History	Art Appreciation: An Introduction to Indian Art	3	<b>HIST(H)136</b>	4 (L-2, T-2)	70	30	100
3	History	Archives and Museums	3	<b>HIST(H)137</b>	4 (L-2, T-2)	70	30	100
4	History	Understanding Popular Culture	4	<b>HIST(H)138</b>	4 (L-2, T-2)	70	30	100
5	History	Science and Technology in Colonial India	4	<b>HIST(H)139</b>	4 (L-2, T-2)	70	30	100
6	History	City in Indian History	4	<b>HIST(H)140</b>	4 (L-2, T-2)	70	30	100

**NOTE: One paper to be opted out of three papers, numbered above as 1, 2, 3 in the III semester; and one paper out of the three papers numbered as 4, 5, 6 in the IV semester.**

### ANNEXURE I

#### SEMESTER-WISE COURSES, CODES AND CREDITS FOR CHOICE BASED CREDIT SYSTEM (CBCS) B. A. HISTORY AS DISCIPLINE 1. TOTAL CREDITS=132

##### CORE COURSES –DISCIPLINE SPECIFIC COURSE (DSC)-4

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	History of India from the Earliest Times up to 300 CE	1	<b>HIST101</b>	6 (L-5, T-1)	70	30	100
2	History	History of India from c. 300 to 1206	2	<b>HIST102</b>	6 (L-5, T-1)	70	30	100
3	History	History of India from c. 1206-1707	3	<b>HIST103</b>	6 (L-5, T-1)	70	30	100
4	History	History of India from 1707-1950	4	<b>HIST104</b>	6 (L-5, T-1)	70	30	100

##### DISCIPLINE SPECIFIC ELECTIVE COURSES (DSE): ANY TWO. ONE PAPER EACH IN V AND VI SEMESTER

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	Patterns of Colonialism in the World: 15th to 19th Centuries	5	<b>HIST105</b>	6 (L-5, T-1)	70	30	100
2	History	National Liberation Movements in 20th Century World	5	<b>HIST106</b>	6 (L-5, T-1)	70	30	100



3	History	Some Aspects of European History: c. 1780-1945	5	<b>HIST107</b>	6 (L-5, T-1)	70	30	100
4	History	Patterns of Capitalism in Europe: c. 16th Century to early 20th Century	6	<b>HIST108</b>	6 (L-5, T-1)	70	30	100
5	History	Some Aspects of Society and Economy of Modern Europe: 15th-18th Century	6	<b>HIST109</b>	6 (L-5, T-1)	70	30	100
6	History	Political History of Modern Europe: 15th-18th Century	6	<b>HIST110</b>	6 (L-5, T-1)	70	30	100

**NOTE: The student has an option to select only one paper each in the V and VI semesters out of three Papers (NUMBERED ABOVE AS 1 TO 3 AND 4 TO 6, CODES NO HIST105 TO 107 AND 108 TO 110).**

**GENERIC ELECTIVE (INTERDISCIPLINARY): (ANY TWO). ONE PAPER EACH IN V AND VI SEMESTER**

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	Women Studies in India	5	<b>HIST111</b>	6 (L-5, T-1)	70	30	100
2	History	Women in Politics and Governance	5	<b>HIST112</b>	6 (L-5, T-1)	70	30	100
3	History	Some Perspectives on Women's Rights in India	5	<b>HIST113</b>	6 (L-5, T-1)	70	30	100
4	History	Gender and Education in India	6	<b>HIST114</b>	6 (L-5, T-1)	70	30	100
5	History	History of Indian Journalism: Colonial and	6	<b>HIST115</b>	6 (L-5, T-1)	70	30	100

		Post Colonial Period						
6	History	Cultures in the Subcontinent	6	<b>HIST116</b>	6 (L-5, T-1)	70	30	100

**NOTE: The student has an option to select only one paper each in the V and VI semesters out of three Papers (NUMBERED ABOVE AS 1 TO 3 AND 4 TO 6, CODES NO HIST111 TO 113 AND 114 TO 116).**

**SKILL ENHANCEMENT COURSES (SEC): ANY FOUR. ONE PAPER EACH IN III, IV, V AND VI SEMESTER**

	Course	Course Name	Semester	Course code	Credits	Max Marks		
						ESE (Theory)	CCA (IA)	Total Max Marks (Theory+IA for Theory subjects)
1	History	Historical Tourism: Theory and Practice	3	<b>HIST117</b>	4 (L-2, T-2)	70	30	100
2	History	Museums and Archives in India	3	<b>HIST118</b>	4 (L-2, T-2)	70	30	100
3	History	Indian History and Culture	4	<b>HIST119</b>	4 (L-2, T-2)	70	30	100
4	History	Ethnographic Practices in India: Tradition of Embroidery; Textile Making, Knitting and Handicrafts	4	<b>HIST120</b>	4 (L-2, T-2)	70	30	100
5	History	An Introduction to Archaeology	5	<b>HIST121</b>	4 (L-2, T-2)	70	30	100
6	History	Documentation and Visual Culture	5	<b>HIST123</b>	4 (L-2, T-2)	70	30	100
7	History	Orality and Oral Culture in India	6	<b>HIST124</b>	4 (L-2, T-2)	70	30	100

**NOTE: The student has an option to select only one paper each in the III, IV, V and VI semesters out of two papers (NUMBERED ABOVE AS 1 TO 2, 3 TO 4, 5 TO 6 WHEREAS THERE IS NO OPTION IN THE VI SEMESTER.**

## **Proceedings of the Meeting of Board of Studies (UG) classes held on 8.12.2016**

A meeting of the Board of Studies (UG) was held on 8.12.2016 at 11.00 AM in the office of the Chairman, Department of Political Science H.P. University, Shimla-5

The following members were present:

Dr. Harish K. Thakur	Chairman
Dr. Joginder Singh,	Member
Prof. Mohammed Khalid	External Expert

The following decisions were taken:

**Item No. I** It was decided by the BOS (UG) that for the students enrolled for the academic session 2014-15 the CCA will account 50 % marks of the final grade that student will get in a course. The breakup of 50 % marks will be as under:

- a) Minor test I = 15 Marks
- b) Minor test II = 15 marks
- c) Assignment/classes Test/Quiz/Seminar/Tutorial = 15 marks
- d) Attendance = 05

Total -= 15 + 15 + 15 + + 05 = 50 Marks

(ii) End Semester Examination (ESE) accounting for the remaining 50% marks of the final grade that a student gets in a course

Note: A student will have to pass both the components, i.e. CCA and ESE separately to become eligible to be declared successful in a course.

Approved

Mewmillians, W.C. and Piotrowski, H. (2001) *The World Since 1945: A History of International Relations*. Fifth edition. London: Lynne Rienner Publishers.

Smith, M., Little, R. and Shackleton, M. (eds.) (1981) *Perspectives on World Politics*. London: Croom Helm.

Indian Foreign Service Institute. (1997, 1998) *India's Foreign Policy: An Agenda for the 21st Century* Vols. 1 & 2, New Delhi: Konark Publishers, pp. 3-41; 102-119.

Ganguly, S. (ed.) (2009) *India's Foreign Policy: Retrospect and Prospect*. New Delhi: Oxford University Press.

Vanaik, A. (1995) *India in a Changing World: Problems, Limits and Successes of Its Foreign Policy*. New Delhi: Orient Longman. pp. 19-41; 63-67; 102-114; 118-124; 132-134.

Basu, Rumki (ed) (2012) *International Politics: Concepts theories and Issues*, New Delhi, Sage Publications India Pvt Ltd.

**Political Science Syllabus**  
**BA-II Year (Semester –III)**

Core Course – SEC-1

Code SEC-1: POLS 302

**Legislative Support**

Course Code	Code –SEC: POLS 302	
Credits -4	L (L = Lecture)	T (T= Tutorial)
	L-3, T-1	
Course Type	Core	
Lecture to be delivered	(I hr. each)	

Semester End Examination System

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs.

Continuous comprehensive Assessment (CCA) Pattern:

Minor Test	Class Test/	Attendance	Total Marks
	Class Test/tutorials/Assignments/Seminar/ /Quiz		
15 Marks	10 Marks	5 Marks	30

**Course Content and Scheme**

Unit	Topic
I	Powers and functions of people's representatives: Local Government (rural and Urban); State Legislature and the Parliament.
II	<b>Supporting the legislative process:</b> How a Bill becomes a Law; Role of the Standing Committee in the making of law.
III	<b>Legislative Committees:</b> Nature, role and types of committees.
IV	<b>Reading the budget document:</b> Role of Parliament in passing the Union Budget; Raising of the demands for grants.

**Suggested Readings:**

Madhavan, M.R. & N.Wahi *Financing of Election Campaigns* PRS, Centre for Policy Research, New Delh, 2008:  
[http://www.prsindia.org/uploads/media/conference/Campaign\\_finance\\_brief.pdf](http://www.prsindia.org/uploads/media/conference/Campaign_finance_brief.pdf)  
 Vanka, S. *Primer on MPLADS* Centre for Policy Research, New Delhi, 2008. can be accessed on:  
<http://www.prsindia.org/parliamenttrack/primers/mplads-487/>

Kalra, H. Public Engagement with the Legislative Process PRS, Centre for Policy Research, New Delhi, 2011. can be accessed on: <http://www.prsindia.org/administrator/uploads/media/Conference%202011/Public%20Engagement%20with%20the%20Legislative%20Process.pdf>

Government of India (Lok Sabha Secretariat) Parliamentary Procedures (Abstract Series), 2009. Can be accessed on: <http://164.100.47.132/LssNew/abstract/index.aspx>

Government of India, (Ministry of Parliamentary Affairs) Legislation, Parliamentary Procedure, 2009. Can be accessed on: [http://mpa.nic.in/Manual/Manual\\_English/Chapter/chapter-09.htm](http://mpa.nic.in/Manual/Manual_English/Chapter/chapter-09.htm)

Government of India, (Ministry of Parliamentary Affairs) Subordinate Legislation, Parliamentary Procedure, 2009. Can be accessed on: [http://mpa.nic.in/Manual/Manual\\_English/Chapter/chapter-11.htm](http://mpa.nic.in/Manual/Manual_English/Chapter/chapter-11.htm)

Kapur, Devesh and Pratap Banu Mehta, "The Indian Parliament as an Institution of Accountability," Democracy, Governance and Human Rights, Programme Paper Number 23, United Nations Research Institute for Social Development, January 2006. Can be accessed on: [http://www.unrisd.org/UNRISD/website/document.nsf/240da49ca467a53f80256b4f005ef245/8e6fc72d6b546696c1257123002fcceb/\\$FILE/KapMeht.pdf](http://www.unrisd.org/UNRISD/website/document.nsf/240da49ca467a53f80256b4f005ef245/8e6fc72d6b546696c1257123002fcceb/$FILE/KapMeht.pdf)

Agarwal, O.P. and T.V. Somanathan, "Public Policy Making in India: Issues and Remedies," February, 2005. Can be accessed on: [http://www.cprindia.org/admin/paper/Public\\_Policy\\_Making\\_in\\_India\\_14205\\_TV\\_SOMANATHAN.pdf](http://www.cprindia.org/admin/paper/Public_Policy_Making_in_India_14205_TV_SOMANATHAN.pdf)

Debroy, Bibek, "Why we need law reform," Seminar January 2001.

Mehta, Pratap Bhanu, "India's Unlikely Democracy: The Rise of Judicial Sovereignty," Journal of Democracy Vol.18, No.2, pp.70- 83.

Government links:  
<http://loksabha.nic.in/>; <http://rajyasabha.nic.in/>; <http://mpa.nic.in/>

Sanyal, K. Strengthening Parliamentary Committees PRS, Centre for Policy Research, New Delhi, 2011. can be accessed on: <http://www.prsindia.org/administrator/uploads/media/Conference%202011/Strengthening%20Parliamentary%20Committees.pdf>

Celestine, A. How to read the Union Budget PRS, Centre for Policy Research, New Delhi, 2011. can be accessed on: <http://www.prsindia.org/parliamenttrack/primers/how-to-read-the-unionbudget-1023/>

### **Political Science Syllabus**

#### **BA-II Year (Semester –IV)**

#### **Skill Enhancement Course –SEC-2**

#### **Code SEC-2: POLS 402**

#### **Public Opinion and Survey Research**

Course Code	Code –SEC: POLS 402	
Credits -4	L (L = Lecture)	T (T= Tutorial)
	L-3, T-1	
Course Type	Core	
Lecture to be delivered	(I hr. each)	

Semester End Examination System

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs.

Continuous comprehensive Assessment (CCA) Pattern:

Minor Test	Class Test/ Class Test/tutorials/Assignments/Seminar/ /Quiz	Attendance	Total Marks
15 Marks	10 Marks	5 Marks	30

## Course Content and Scheme

Unit	Topic
I	Public Opinion: Meaning and features. Public opinion and democracy.
II	Representation and sampling- a. Sample- meaning and utility; b. Types: Random, Non random and stratified sampling.
III	Understanding Survey Research -a. Interview techniques. b. Questionnaire method.
IV	Quantitative Data: Meaning, Analysis and interpretation. Understanding the opinion and exit polls.

**Essential Readings:** R. Karandikar, C. Pyne and Y. Yadav, (2002) 'Predicting the 1998 Indian Parliamentary Elections', Electoral Studies, Vol. 21, pp.69-89.

M. McDermott and K. A. Frankovic, (2003) 'Horserace Polling and Survey Methods Effects: An Analysis of the 2000 Campaign', Public Opinion Quarterly 67, pp. 244-264.

Additional Readings: K. Warren, (2001) 'Chapter 2', in In Defense of Public Opinion Polling, Boulder: Westview Press, pp. 45-80.

W. Cochran, (2007) 'Chapter 1', Sampling Techniques, John Wiley & Sons.

G. Gallup, (1948) A Guide to Public Opinion Polls. Princeton: Princeton University Press, pp. 14-20;

D. Rowntree (2000) Statistics Without Tears: an Introduction for Non Mathematicians, Harmondsworth: Penguin.

**Suggested Student Exercises:** 1. Discussion of readings and Indian examples. 2. Groups of students to collect examples of and discuss various sample based studies across many fields: e.g. consumer behaviour, unemployment rates, educational standards, elections, medicinal trials etc. 3. Non-random sampling: The students have to identify one group of people or behaviour that is unique or rare and for which snowball sampling might be needed. They have to identify how they might make the initial contact with this group to start snowball rolling. 4. Give the students the electoral list of an area in Delhi (<http://ceodelhi.gov.in>). The students have to draw a random sample of n number of respondents. 5. For this activity, working with a partner will be helpful. The class should first decide on a topic of interest. Then each pair should construct a five-item self report questionnaire. Of the five items, there should be at least one nominal response, one ordinal response and one interval. After the common questionnaire is constructed putting together the questions from everyone, working in pairs, the questionnaire should be administered on 10 different individuals. 6. Give the students a questionnaire from any public opinion survey and ask them to identify the type of variables.

**Political Science Syllabus**  
**BA-III Year (Semester –V)**  
Skill Enhancement Course –SEC-3  
Code SEC-3: POLS 501  
**Democratic Awareness with Legal Literacy**

Course Code	Code –SEC: POLS 501	
Credits -4	L (L = Lecture)	T (T= Tutorial)
	L-3, T-1	
Course Type	Core	
Lecture to be delivered	(1 hr. each)	

Semester End Examination System

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs.

Continuous comprehensive Assessment (CCA) Pattern:

Minor Test	Class Test/ Class Test/tutorials/Assignments/Seminar/ /Quiz	Attendance	Total Marks
15 Marks	10 Marks	5 Marks	30

**Course Content and Scheme**

Unit	Topic
I	Outlining the Legal system in India: criminal and civil courts; juvenile courts, Mahila courts. Role of tribunals.
II	Understanding the application of law. Criminal jurisdiction, filing an FIR, arrest, bail search and seizure . Prevention of atrocities on Scheduled Castes and Scheduled Tribes.
III	Dowry, sexual harassment and violence against women. Consumer rights and Cybercrimes.
IV	Functioning of Legal System: Legal Services Authorities Act. Preventive detention Act and NSA.

**Essential Reading**

Creating Legal Awareness, edited by Kamala Sankaran and Ujjwal Singh (Delhi: OUP, 2007)

Legal literacy: available amongst interdisciplinary courses on Institute of Life Long Learning (Delhi University) Virtual Learning Portal namely vle.du.ac.in

Reading list for course on Legal Literacy

□ Multiple Action Research Group, Our Laws Vols 1-10, Delhi. Available in Hindi also. □ Indian Social Institute, New Delhi, Legal Literacy Series Booklets. Available in Hindi also. □ S.K. Agarwala, Public Interest Litigation in India, K.M. Munshi Memorial Lecture, □ Second Series, Indian Law Institute, Delhi, 1985. □ S.P. Sathe, Towards Gender Justice, Research Centre for Womens' Studies, SNDT Women's University, Bombay, 1993. □ Asha Bajpai, Child Rights in India : Law, Policy, and Practice, Oxford University Press, New Delhi, 2003 □ Agnes, Flavia Law and Gender Equality, OUP, 1997. □ Sagade, Jaga, Law of Maintenance: An Empirical Study, ILS Law College, Pune 1996.

26

□ B.L. Wadhwa, Public Interest Litigation - A Handbook, Universal, Delhi, 2003. □ Nomita Aggarwal, Women and Law in India, New Century, Delhi, 2002. □ P.C. Rao and William Sheffiled Alternate Dispute Resolution: What it is and How it Works, , Universal Law Books and Publishers, Delhi, 2002 □ V.N. Shukla's Constitution of India by Mahendra P. Singh, Eastern Book Co. 10th edition 2001. □

**Political Science Syllabus**  
**BA-III Year (Semester –VI)**  
Skill Enhancement Course –SEC-4  
Code SEC- 4: POLS 601  
**Conflict and Peace Building**

Course Code	Code –SEC: POLS 601	
Credits -4	L (L = Lecture)	T (T= Tutorial)
	L-3, T-1	
Course Type	Core	
Lecture to be delivered	(I hr. each)	

Semester End Examination System

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs.

Continuous comprehensive Assessment (CCA) Pattern:

Minor Test	Class Test/ Class Test/tutorials/Assignments/Seminar/ /Quiz	Attendance	Total Marks
15 Marks	10 Marks	5 Marks	30

**Course Content and Scheme**

Unit	Topic
I	Understanding Conflict: Management, Resolution and Transformation. Peace Building .
II	Types of Conflict: Ideological, Socio-Cultural Conflicts (Ethnic, Religious).
III	Levels of Conflict: - a. Local - b. Sub-National c. International.
IV	Methods to resolve conflict: Negotiations, Trust Building and Mediation. Track I and Track II diplomacy

**Unit I.** Concepts a. Understanding Conflict Essential Readings: O. Ramsbotham, T. Woodhouse and H. Miall, (2011) ‘Understanding Contemporary Conflict’, in Contemporary Conflict Resolution, (Third Edition), Cambridge: Polity Press, pp. 94-122. W. Zartman, (1995) ‘Dynamics and Constraints In Negotiations In Internal Conflicts’, in William Zartman (ed.), Elusive Peace: Negotiating an End to Civil Wars, Washington: The Brookings Institute, pp. 3-29.

Additional Readings: P. Wallensteen, (2012) ‘Armed Conflicts’, in Understanding Conflict Resolution, (Third Edition), London: Sage, pp. 13-28.

b. Conflict Management, Conflict Resolution and Conflict Transformation Essential Readings: C. Mitchell, (2002) ‘Beyond Resolution: What Does Conflict Transformation Actually Transform?’, in Peace and Conflict Studies, 9:1, May, pp.1-23.

S. Ryan, (1990) ‘Conflict Management and Conflict Resolution’, in Terrorism and Political Violence, 2:1, pp. 54-71.

Additional Reading: J. Lederach, (2003) The Little Book Of a Conflict Transformation, London: Good Books.

I. Doucet, (1996) Thinking About Conflict, Resource Pack For Conflict Transformation: International Alert.

c. Peace Building Essential Readings: M. Lund, (2001) ‘A Toolbox for Responding to Conflicts and Building Peace’, in L. Reyhler and T. Paffenholz, eds., Peace-Building: A Field Guide, Boulder: Lynne Rienner, pp. 16-20.

L. Schirch, (2004) The Little Book Of Strategic Peacebuilding, London: Good Books.

Unit II: Dimensions of Conflict Essential Readings: R. Rubenstein, (2003) ‘Sources’, in S. Cheldelin, D. Druckman and L. Fast (eds.) Conflict: From Analysis to Intervention, London: Continuum, pp.55-67.

P. Le Billon, (2009) ‘Economic and Resource Causes of Conflicts’, in J. Bercovitch, V. Kremenjuk and I. Zartman (eds.) The Sage Hand Book of Conflict Resolution, London: Sage Publications, pp. 210-224.



S. Ayse Kadayifci-Orellana, (2009) 'Ethno-Religious Conflicts: Exploring the Role of Religion in Conflict Resolution', in J. Bercovitch, V. Kremenjuk and I. Zartman (eds.) *The Sage Hand Book of Conflict Resolution*, London: Sage Publications, pp. 264-284.

Unit III: Sites of Conflict Essential Readings: D. Barash and C. Webel, (2009) *Peace and Conflict Studies*, London: Sage Publication, pp. 911-17.

D. Sandole, (2003) 'Typology' in S. Cheldelin, D. Druckman and L. Fast (eds.) *Conflict: From Analysis to Intervention*, London: Continuum, pp.39-54.

P. Wallenstein, (2007) *Understanding Conflict Resolution* (2nd ed.), London: Sage Publications.

Unit IV: Conflict Response: Skills And Techniques Essential Readings: H. Saunders, (1999) *A Public Peace Process: Sustained Dialogue To Transform Racial and Ethnic Conflicts*, Palgrave Macmillan: New York, pp. 1-30.

N. Behera, 'Forging New Solidarities: Non-official Dialogues', in M. Mekenkamp, P. Tongeren and H. Van De Veen (eds.), *Searching For Peace In Central And South Asia*, London: Lynne Rienner Publishers, pp. 210-236.

J Bercovitch, V. Kremenjuk, and I. Zartman (eds.), (2009) *The Sage Hand Book of Conflict Resolution*, London: Sage Publications.

M. Steger , (2001) 'Peacebuilding and Non-Violence: Gandhi's Perspective on Power', in D. Christie, R. Wagner and D. Winter, (eds.), *Peace, Conflict, and Violence: Peace Psychology for the 21st Century* Englewood Cliffs, New Jersey: Prentice-Hall.

Additional Readings: J. Davies and E. Kaufman (eds.), (2003) *Second Track/Citizens' Diplomacy: Concepts and Techniques for Conflict Transformation*, Rowman & Littlefield: Maryland.

C. Webel and J. Galtung (eds.), (2007) *The Handbook of Peace and Conflict Studies*, London: Routledge.

Toolkits by United States Institute of Peace

S. Mason and M. Siegfried, (2010) *Debriefing Mediators To Learn Their Experiences*, Washington D.C: United States Institute Of Peace.

I. Zartman and A. De Soto, (2010) *Timing Mediation Initiatives*, Washington D.C: United States Institute Of Peace.

A. Smith and D. Smock, (2010) *Managing A Mediation Process*, Washington D.C: United States Institute Of Peace.

H. Burgess and G. Burgess, (2010) *Conducting Track II*, Washington D.C: United States Institute Of Peace.

Online Resources

Conflict Resolution in Popular Art and Culture:

The International Network of Peace Museums, at [www.museumsforpeace.org/](http://www.museumsforpeace.org/), contains links to visit the websites of many of the world's peace museums.

Theatre, peace and conflict at Theatre Without Borders, [www.theatrewithoutborders.com/peacebuilding](http://www.theatrewithoutborders.com/peacebuilding)

Global Peace Film Festival, [www.peacefilmfest.org/](http://www.peacefilmfest.org/)

Football for Peace International, [www.football4peace.eu/contact.html](http://www.football4peace.eu/contact.html)

Dialogue: [http://www.pgexchange.org/images/toolkits/PGX\\_D\\_Sustained%20Dialogue.pdf](http://www.pgexchange.org/images/toolkits/PGX_D_Sustained%20Dialogue.pdf)

Mediation: [http://www.initiativeforpeacebuilding.eu/resources/A\\_guide\\_to\\_Mediation\\_HDC.pdf](http://www.initiativeforpeacebuilding.eu/resources/A_guide_to_Mediation_HDC.pdf)

<http://www.pgexchange.org/images/toolkits/civics%20mediation%20tool.pdf>

<http://www.beyondintractability.org/bi-essay/mediation>

Facilitation: [http://www.pgexchange.org/images/toolkits/pgx\\_facilitation\\_tool.pdf](http://www.pgexchange.org/images/toolkits/pgx_facilitation_tool.pdf)

<http://www.beyondintractability.org/bi-essay/facilitation>

Negotiation: Roger Fisher et al, *Getting to Yes: Negotiating Agreement without Giving In*, New York: Penguin, 1991. [http://peacebuilding.caritas.org/index.php/Introduction\\_to\\_Principled\\_Negotiation](http://peacebuilding.caritas.org/index.php/Introduction_to_Principled_Negotiation)

Reconciliation: <http://www.peacebuildinginitiative.org/index.cfm?pageId=1975> John Paul Lederach, *The Journey Toward Reconciliation*, London: Herald Press, 1999. Charles Lerche, "Peace Building Through Reconciliation," *International Journal of Peace Studies*, Vol. 5. No. 2, 2000. [http://www.gmu.edu/programs/icar/ijps/vol5\\_2/lerche.htm](http://www.gmu.edu/programs/icar/ijps/vol5_2/lerche.htm)

Crossword Puzzle:

[http://www.cengage.com/cgiwadsworth/course\\_products\\_wp.pl?fid=M20bI&product\\_isbn\\_issn=9781133602101](http://www.cengage.com/cgiwadsworth/course_products_wp.pl?fid=M20bI&product_isbn_issn=9781133602101)

[http://www.cengage.com/cgiwadsworth/course\\_products\\_wp.pl?fid=M20bI&product\\_isbn\\_issn=9781111344238](http://www.cengage.com/cgiwadsworth/course_products_wp.pl?fid=M20bI&product_isbn_issn=9781111344238)

Suggested Classroom Exercises/ Activities: 1) Map the ethnic composition of your classroom and examine the prevailing prejudices and stereotyping practices and their manifestations and then suggest a strategy for trust building.

**BA-III Year (Semester –VI)**  
**Generic II**  
**Code GEN II: POLS 604**  
**Human Rights, Gender and Environment**

Course Code	Code –GEN II: POLS 602	
Credits -6	L (L = Lecture)	T (T= Tutorial)
	L-5, T-1	
Course Type	Core	
Lecture to be delivered	(I hr. each)	

Semester End Examination System

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs.

Continuous comprehensive Assessment (CCA) Pattern:

Minor Test	Class Test/ Class Test/tutorials/Assignments/Seminar/ /Quiz	Attendance	Total Marks
15 Marks	10 Marks	5 Marks	30

**Course Content and Scheme**

Unit	Topic
I	Human Rights: Meanings and scope. UN Declarations and Covenants.
II	Human Rights in India: Constitutional Provisions and Practices. The role of the National Human Rights Commission.
III	Analyzing Structures of Patriarchy. Economic Development and Women. The Issue of Women's Political Participation and Representation in India.
IV	Environmental and Sustainable Development. UN Environment Programme: Rio, Johannesburg and after. Environmental policy in India.

**Essential Readings**

Agarwal, Anil and Sunita Narain (1991), Global Warming and Unequal World: A Case of Environmental Colonialism, Centre for Science and Environment, Delhi.

Baxi, Upendra (2002), The Future of Human Rights, Oxford University Press, Delhi.

Beteille, Andre (2003), Antinomies of Society: Essays on Ideology and Institutions, Oxford University Press, Delhi.

Geetha, V. (2002) Gender, Stree Publications, Kolkata.

Ghanshyam Shah, (1991) Social Movements in India, Sage Publications, Delhi.

Guha, Ramachandra and Madhav Gadgil, (1993) Environmental History of India, University of California Press, Berkeley.

Haragopal, G. (1997) The Political Economy of Human Rights, Himachal Publishing House, Mumbai.

Menon, Nivedita (ed) (2000) Gender and Politics in India, Oxford University Press, Delhi.

Patel, Sujata et al (eds) (2003) Gender and Caste: Issues in Contemporary Indian Feminism, Kali for Women, Delhi.

Shah, Nandita and Nandita Gandhi (1992) Issues at Stake: Theory and Practice in the Contemporary Women's Movement in India, Kali for Women, Delhi.

Gonsalves, Colin (2011) Kaliyug: The decline of human rights law in the period of globalization Human Rights Law Network, New Delhi.

Sen, Amartya, Development as Freedom (1999) New Delhi, OUP.

**PROPOSED OUTLINE OF B.A. WITH PUBLIC ADMINISTRATION 2016-17 (CREDIT-132)**

Sem.	Course Code	Course	Course PROPOSED	Course Name	Credits	Award Type
I		English-I			06	100 ESE=70 IA=30
	PUBA 101	DSC-1A	Core Course	Administrative Theory	06	100 ESE=70 IA=30
		DSC-2A	Core Course		06	100 ESE=70 IA=30
	(English/MIL Communication)/ Environmental Science	AECC-1	Ability Enhancement Compulsory Course		04	100 ESE=70 IA=30
	<b>Total</b>				<b>22</b>	
II	English/Hindi	MIL-1/Hindi-1	Core Course		06	100 ESE=70 IA=30
	PUBA 201	DSC-1B	Core Course	Indian Administration	06	100 ESE=70 IA=30
		DSC-2B	Core Course		06	100 ESE=70 IA=30
	(English/MIL Communication)/ Environmental Science	AECC-2	Ability Enhancement Compulsory Course		04	100 ESE=70 IA=30
	<b>Total</b>				<b>22</b>	
III	English-2		Core Course		06	100 ESE=70 IA=30
	PUBA 301	DSC-1C	Core Course	Administrative Thinkers	06	100 ESE=70 IA=30
		DSC-2C	Course Course		06	100 ESE=70 IA=30
	PUBA 302	SEC-1	Skill Enhancement	Computer Awareness & Office Management	04	100 ESE=70 IA=30
	<b>Total</b>				<b>22</b>	
IV	Hindi	MIL-2/Hindi-2	Core Course		06	100 ESE=70 IA=30
	PUBA 401	DSC-1D	Core Course	Development Administration	06	100 ESE=70 IA=30
		DSC-2D	Core Course		06	100 ESE=70 IA=30
	PUBA 402	SEC-2	Skill Enhancement Course	Human Resource & Logistic Management	04	100 ESE=70 IA=30
	<b>Total</b>				<b>22</b>	
V	PUBA 501	SEC-3	Skill Enhancement Course	Leadership Styles & Conflict Management	04	100 ESE=70 IA=30
	PUBA 502	DSE-1A Option-1	Discipline Specific Elective	Local Governance IA	06	100 ESE=70 IA=30
	PUBA 503	OR DSE-1A Option -2	-do-	OR Contemporary Issues & Concerns in Indian Administration		
		DSE-2A	Discipline Specific Elective		06	100 ESE=70 IA=30
	PUBA 504	GE-1	Generic Elective	Disaster Management	06	100 ESE=70 IA=30
<b>Total</b>					<b>22</b>	
VI	PUBA 601	SEC-4	Skill Enhancement Course	Stress & Time Management	06	100 ESE=70 IA=30
	PUBA 602	DSE-1B Option -1	Discipline Specific Elective	Public Policy & Administration in India	06	100 ESE=70 IA=30
	PUBA 603	OR DSE-1B Option -2	--do-	OR Public & Finance Administration		
		DSE-2B	Discipline Specific Elective		06	100 ESE=70 IA=30
	PUBA 604	GE-2	Generic Elective	E-Governance	06	100 ESE=70 IA=30
<b>Total</b>					<b>22</b>	

**Public Administration Syllabus**  
**BA-II Year (Semester-IV)**  
Skill Enhancement Course ;SEC-II  
Code : SEC-01;PUBA402

**Course: Human Resource & Logistic Management**

Course Code	CODE-SEC:PUBA402	
Credits-4	L (L=Lecture)	T(T=Tutorial)
	L-2,	T-2
Course Type	Core Course/Major	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern:**

Minor Test (Marks)	Class Test/Tutorials/Assignments /QUIZ/SEMINAR(Marks)	Attendance	Total Marks
15	10	5	30

Unit	Topic
I	i. Meaning, Nature, Scope & Significance of Human Resource Management (HRM) ii. Objective & Function of Human Resource Management iii. Qualities of Human Resource Manager/Personnel Manager
II	Human Resource Planning Meaning, Objectives and Need, Factors affecting Human Resource Planning, HR Problems.
III	Logistics-Concept, Principles and Forms, Logistics Management: Conceptual Framework Logistics Management: Components: Procurement of Material and Inventory Control (Economic Order Quantity, ABC and VED Analysis), Material Handling and Packaging, Transportation, Warehousing Storage and Security, Logistics Information System
IV	Logistic Management: Emerging Trends Green Logistics Effective Logistics Management: Challenges (Human Resource Management, Financial Management, Inventory/Materials. Outsourcing, Customer Satisfaction etc)

**Books Recommended:**

1. Allawadi, Satish Chand Rakesh P. Singh, 2001, Logistics Management (Second Edition), Prentice Hall India, New Delhi
2. Agarwal, D.K., 2012, Text book of logistics and Supply Chain Management (Reprint), Macmillan, Delhi.
3. Bhattacharya, S.K., 2010 Logistics Management-Definition, Dimensions and Functional Applications (Reprint), Sultan Chand and Sons, Delhi.
4. Ismail Reji, 2013 Logistics Management, Excel Books India, Delhi
5. Raghuram, G and N. Rangaraj, Logistics and Supply Chain Management-Cases and Concepts, Macmillan India, Delhi.
6. Sople, Vinod, V. 2013, Logistics Management 9Third edition). Dorling Kindersley India, New Delhi.

**Public Administration Syllabus**  
**BA-III Year (Semester-V)**  
Skill Enhancement Course ;SEC-III  
Code : SEC-III ;PUBA501

**Course: Leadership Styles and Conflict Management**

Course Code	CODE-SEC:PUBA501	
Credits-4	L (L=Lecture)	T(T=Tutorial)
	L-2,	T-2
Course Type	Core Course/Major	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern:**

Minor Test (Marks)	Class Test/Tutorials/Assignments /QUIZ/SEMINAR(Marks)	Attendance	Total Marks
15	10	5	30

Unit	Topic
I	i. Meaning of Leadership ii. Types of Leadership iii. Qualities and Functions of Leadership iv. Leadership Styles viz Autocratic style, Democratic style and Laissez Faire style
II	i. Nature and Causes of Organizational Conflicts ii. Conflicts in an Organisation: Types and Levels of Conflicts iii. Criteria for Conflict Management
III	i. Bargaining strategies in negotiation ii. Negotiation process Stages iii. Techniques of Negotiations: Third-party Negotiations
IV	i. Styles of Handling Inter-personal Conflicts and Managing Conflict Management Process: Case Studies ii. The Arbitration and Conciliation (Amendment) Act, 2015

## **Books**

1. Bernard M. Bass, 1985, Leadership and Performance Beyond Expectations, Free Press, New York.
2. C.K.W. DeDreu & E. Van de Vliert (Eds.), 1997, Using Conflict in Organizations, Sage, London.
3. D.G. Pruitt & P.J. Carnevale, 1993, Negotiation and Social Conflict, Open University Press, England.
4. Deepak Malhotra, 2016, Negotiating the Impossible: How to Break Deadlocks and Resolve Ugly Conflicts (without Money or Muscle). Berrett-Koehler Publishers, Oakland CA
5. Deepak Malhotra and Max H. Bazerman, 2008, Negotiation Genius: How to Overcome Obstacles and Achieve Brilliant Results at the Bargaining Table and Beyond, Bantam Dell, Random House Inc., New York.
6. I William Zartman, 2007, Negotiation and Conflict Management: Essays on Theory and Practice (Security and Conflict Management), Routledge, New York.
7. L.D. Brown, 1983, Managing Conflict at Organizational Interfaces, Reading, Addison-Wesley, M.A.
8. M.Afzalur.Rahim, 2001, Managing Conflict in Organizations (3<sup>rd</sup> Ed.), Quorum Books, Westport, CT.
9. Shay & Margaret McConnon, 2008, Conflict Management in the Workplace: How to Manage Disagreements and Develop Trust and Understanding, How to Books Ltd., U.K.
10. Wendel.L. French & Cecil.H. Bell Jr, 1999, Organization Development : Behavioral Science Interventions for Organization Improvement(6<sup>th</sup> Ed.) Englewood Cliffs, Prentice-Hall, N.J.
11. William W.Wilmot and Joyce L. Hocker, 2005, Interpersonal Conflict, Mc Graw-Hill Higher Education.

## **Reading List**

Government of India, The Gazette of India Extraordinary PART II- Section 1, New Delhi, Friday, January 1, 2016 [www.indiacode.nic.in/acts-in-pdf/2016/201603.pdf](http://www.indiacode.nic.in/acts-in-pdf/2016/201603.pdf).

**Public Administration Syllabus**

**BA-III Year (Semester-VI)**

Code : GE-02;PUBA604

**Course: E-Governance**

Course Code	CODE-GE:PUBA604	
Credits-6	L (L=Lecture)	T(T=Tutorial)
	L-5	T-1
Course Type	Core Course/Major	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern:**

Minor Test (Marks)	Class Test/Tutorials/Assignments /QUIZ/SEMINAR(Marks)	Attendance	Total Marks
15	10	5	30

Unit	Topic
I	E-Governance-Concept significance & Scope, Pre-conditions for implementing e-governance
II	E-Governance in Government Departments/Institutions/Agencies; Transforming Administrative Culture E-Governance and Good Governance.
III	E-learning, E-commerce, E-health Measures for Effective Implementation of E-Governance Challenges Measures for having effective e-governance
IV	Initiative taken for promoting E-governance in Himachal Pradesh, Challenges of E-Governance in H.P.

**Readings**

1. Giorgio Petroni and Fanie Cloete, New Technologies in Public Administration, 2005
2. Harekrishna Misra, Governance of Rural Information and Communication Technologies Opportunities and Challenges, 2009
3. A.K. Baranwal, Electronic Information Management System and p-Government: A Paradigm Shift from E-Government, 2010
4. M.A. Shareef et. al., E-Government Service Maturity and Development: Cultural, Organisational and Technological Perspectives, 2012
5. E.H. Klijn and Joop Koppenjan, Governance Networks in Public Sector, 2016





**UNDER GRADUATE COURSE FOR  
SANSKRIT (PROGRAMME)**

संस्कृत

**UNDER  
CHOICE BASED CREDIT SYSTEM  
(CBCS)**



**UNIVERSITY GRANTS COMMISSION  
(UGC)  
NEW DELHI**

<b>FIRST YEAR</b>		पूर्णांक : 100 (इक्डोल एवं प्राईवेट विद्यार्थी)
<b>SKT-AECC-104</b>		पूर्णांक: 100 (70+30) (रेगुलर विद्यार्थी)
उपनिषद्, गीता तथा पाणिनीय शिक्षा		लिखित परीक्षा 70 अंक
		आन्तरिक मूल्यांकन : 30 अंक
		समय : तीन घण्टे
<b>(A) Prescribed Course:</b>		
Section 'A'	उपनिषद् : ईशावास्योपनिषद्	
Section 'B'	श्रीमद्भगवद्गीता	
Section 'C'	औपनिषदिक दर्शन का सामान्य परिचय	
Section 'D'	पाणिनीय शिक्षा	
	<b>Section 'A'</b> उपनिषद् : ईशावास्योपनिषद्	
<b>(B Unit Wise Division :</b>		
Unit I	ईशावास्योपनिषद् का परिचय	
Unit II	ईशावास्योपनिषद् के मन्त्रों का सरलार्थ	
	<b>Section 'B'</b> श्रीमद्भगवद्गीता : अध्याय— 2	
Unit I	श्रीमद्भगवद्गीता का सामान्य परिचय, अध्याय—2 (पद्य 1—25), सरलार्थ एवं व्याख्या	
Unit II	श्रीमद्भगवद्गीता अध्याय—2 (पद्य 26—72), सरलार्थ एवं व्याख्या	
	<b>Section 'C'</b> औपनिषदिक दर्शन का सामान्य परिचय	
Unit I	औपनिषदिक दर्शन का सामान्य परिचय : आत्मा, ब्रह्म, ईश्वर, कर्म और सृष्टि	
	<b>Section 'D'</b> पाणिनीय शिक्षा	
Unit I	पाणिनीय शिक्षा (1—14 पद्य) सरलार्थ एवं व्याख्या	

टिप्पणी – सभी वर्गों से प्रश्न पूछना अनिवार्य है।

(C) Suggested Books/Readings	
1.	हनुमान प्रसाद पोद्दार (सम्पादक), ईशावास्योपनिषद्, गीताप्रेस गोरखपुर।
2.	शिवनारायण शास्त्री (व्या), ईशावास्योपनिषद् परिमल प्रकाशन, दिल्ली, 1996।
3.	शशि तिवारी (व्या), ईशावास्योपनिषद् : भूमिका एवं व्याख्या, भारतीय विद्या प्रकाशन, दिल्ली, 1997।
4.	बलदेव उपाध्याय, संस्कृत साहित्य का इतिहास, शारदा निकेतन, वाराणसी।
5.	बलदेव उपाध्याय, वैदिक साहित्य और संस्कृति, वाराणसी।
6.	प्रीतिप्रभा गोयल, संस्कृत साहित्य का इतिहास, राजस्थानी ग्रन्थाकार, जोधपुर।
7.	उमार्शंकर शर्मा ऋषि : संस्कृत साहित्य का इतिहास, चौखम्बा भारती अकादमी, वाराणसी।
8.	रमेश भारद्वाज, नवजागरण एवं स्वतन्त्रता आन्दोलन में उपनिषदों की भूमिका, विद्यानिधि प्रकाशन, दिल्ली।
9.	राधावल्लभ त्रिपाठी, संस्कृति साहित्य का अभिनव इतिहास, विश्वविद्यालय प्रकाशन, वाराणसी।
10.	पाणिनीय शिक्षा, 'वेदांगशिक्षाविर्मशाख्य' व्याख्याकार— शिवराज आचार्य कौण्डिन्नायायन, चौखम्बा सुरभारती प्रकाशन, दिल्ली
11.	Keith, A.B: <i>History of Sanskrit Literature</i> , also Hindi translation, MLBD, Delhi (हिन्दी अनुवाद, मंगलदेव शास्त्री, मोतीलाल बनारसीदास, दिल्ली)।
12.	Krishnamachariar, <i>History of Classical Sanskrit Literature</i> , MLBD, Delhi.
13.	Gaurinath Shastri, <i>A Concise History of Sanskrit Literature</i> , MLBD, Delhi.
14.	Winternitz Maurice, <i>Indian Literature</i> (Vol. I-III), also Hindi Translation, MLBD, Delhi.

**PROPOSED OUTLINE OF B.A. WITH SOCIOLOGY 2016-17**

Sem.	Course Code	Course	Course Type	Course Name	Credits	Award Type
I		English-I			06	100 ESE=70 IA=30
	SOCL 101	DSC-IA	Core Course	<b>Introduction to Sociology</b>	06	100 ESE=70 IA=30
		DSC-2A	Core Course		06	100 ESE=70 IA=30
	(English/MIL Communication)/ Environmental Science	AECC-1	Ability Enhancement Compulsory Course		04	100 ESE=70 IA=30
	<b>Total</b>				<b>22</b>	
II	English/Hindi	MIL-1/Hindi-1	Core Course		06	100 ESE=70 IA=30
	SOCL 201	DSC-1B	Core Course	<b>Sociology of India</b>	06	100 ESE=70 IA=30
		DSC-2B	Core Course		06	100 ESE=70 IA=30
	(English/MIL Communication)/ Environmental Science	AECC-2	Ability Enhancement Compulsory Course		04	100 ESE=70 IA=30
<b>Total</b>					<b>22</b>	
III		English-2	Core Course		06	100 ESE=70 IA=30
	SOCL 301	DSC-1C	Core Course	<b>Sociological Theories</b>	06	100 ESE=70 IA=30
		DSC-2C	Core Course		06	100 ESE=70 IA=30
	SOCL 302	SEC-I	Skill Enhancement Course	<b>Techniques of Social Research</b>	04	100 ESE=70 IA=30
<b>Total</b>					<b>22</b>	
IV		MIL-2/Hindi-2	Core Course		06	100 ESE=70 IA=30
	SOCL 401	DSC-1D	Core Course	<b>Methods of Sociological Enquiry</b>	06	100 ESE=70 IA=30
		DSC-2D	Core Course		06	100 ESE=70 IA=30

**Sociology Syllabus**  
**BA-II Year (Semester-III)**  
 Skill Enhancement Course ; (SEC-01)  
 Course Code : SOCL302  
**Course: Technique of Social Research**

Course Code	CODE SOCL302	
Credits-4	L (L=Lecture)=3	T(T=Tutorial)=01
Course Type	Skill Enhancement Course	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern:**

Minor Test (Marks)	Class Test/Tutorials/Assignments /QUIZ/SEMINAR(Marks)	Attendance	Total Marks
15	10	5	30

**Course Content and Credit Scheme**

**Course Objective:**

This course aims to enhance the skills of students to understand and use techniques employed by social scientists to investigate social phenomena. With emphasis on formulating research design, methods of data collection, and data analysis, it will provide students with some elementary knowledge on how to conduct both, quantitative and qualitative research. The focus is on understanding through suggested exercises.

Unit	Topic
<b>I</b>	<b>Research Design:</b> (i) Meaning, Characteristics, Need of Research Design (ii) Hypothesis and Sampling (Meaning and Types)
<b>II</b>	<b>Data Collections (Sources):</b> (i) Primary Sources: Meaning, Importance and Types (ii) <b>Secondary Sources:</b> Meaning, Importance and Types
<b>III</b>	<b>Tools of Data Collections:</b> (i) Interview and Interview Schedule (ii) Observation and Questionnaire
<b>IV</b>	<b>Analysis of Data:</b> (i) Coding and Tabulation, (ii) Analysis and Interpretation of data

## *COURSE CONTENTS AND ITINERARY*

### **1. Research Design**

1.1.1. Bryman, A. 2008, *Social Research Methods*, Oxford: Oxford University Press, Chapter 2, 3, 4 & 5, pp. 29-136

1.1.2. Amir B. Marvasti, 2004, *Qualitative Research in Sociology*, London: Sage,

### **Data Collection**

1 Lofland J. and Lofland L. 1984, *Analysing Social Settings: A Guide to Qualitative Observation and Experiment*, California: Wadsworth

2 Morgan, David L. 1996, "Focus Groups", *Annual Review of Sociology*

**Sociology Syllabus**  
**BA-II Year (Semester-IV)**  
Skill Enhancement Course (SEC-02)  
Course Code: SOCL 402  
**Course: Sociology of Environment**

Course Code	Code SOCL 402	
Credits-4	L (L=Lecture)=3	T(T=Tutorial)=1
Course Type	Skill Enhancement Course	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern:**

Minor Test (Marks)	Class Test/Tutorials/Assignments/Quiz/Seminars (Marks)	Attendance	Total Marks
15	10	5	30

**Course Content and Credit Scheme**

**Course Objective:**

This course will sensitise students about the issues related to environmental concerns and interrelationship of environment and society.

Unit	Topic
<b>I</b>	<b>Concept and Meaning :</b> i. Environment and Society-Relationship ii. Need and importance of Environmental Studies.
<b>II</b>	<b>Environment and Resources :</b> i. Environment and Resources Relationship ii Ecology, Ecosystem and Society (Interrelationship)
<b>III</b>	<b>Development and Environment :</b> i Industrialization, Urbanization and Environmental Degradation ii Depletion of Natural Resources and Pollution -Air, Water and Soil.
<b>IV</b>	<b>Contemporary Environmental Concerns :</b> i Deforestation and Ecological Crises, Climatic Change ii. Global Warming, Construction of Dams and its impact, and Water Crises.

**Suggested Readings:**

Arnold, D. and Ramchandra Guha (eds.) 1995 Nature, Culture, Imperialism; Essays on the Environmental History of South Asia. Oxford University Press, New Delhi

Brara, Rita 2004 Ecology and Environment. In Veena Das (ed.) Handbook of Indian Sociology, Oxford University Press, New Delhi.

Gadgil, M. & R. Guha 1995 Ecology and Equity – The Use and Abuse of Nature in contemporary India. Penguin, Delhi.

Goldsmith, E. and N. Hildyard (ed.) 1994 The Social and Environmental Effects of Large Dams ; Vo. I-III, Wadebridge Ecological Centre, U.K.

Owen, D.F. 1980 What is Ecology ? OUP, Oxford.

Prasad, Archana (ed.) 2008 Environment, Development and Society in Contemporary India: An Introduction. Macmillan India, Delhi.

(Note : - Students may also use any standard Hindi Medium book available in Sociology.)



**Sociology Syllabus**  
**BA-III Year (Semester-V)**  
 Skill Enhancement Course (SEC-03)  
 Course Code : SOCL 501  
**Course: Population Studies**

Course Code	CODE SOCL 501	
Credits-4	L (L=Lecture)=3	T(T=Tutorial)=01
Course Type	Skill Enhancement Course	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern:**

Minor Test (Marks)	Class Test/Tutorials/Assignments/Quiz/Seminars (Marks)	Attendance	Total Marks
15	10	5	30

**Course Content and Credit Scheme**

**Course Objective :**

This course intends to train students in the specialized technique of population studies and recent trends in demographic processes.

Unit	Topic
<b>I</b>	<b>Social Demography :</b> i. Meaning, Development of Demography as a Specialized Science of Population. ii. Importance of Demographic Studies
<b>II</b>	<b>Demographic Processes :</b> i Fertility (Meaning and Causes of Fertility) ii. Mortality (Meaning and Causes of Mortality) and Migration (Meaning and Types).
<b>III</b>	<b>Population Theories :</b> i Malthusian theory of Demography ii Theories of Demographic Transition and Optimum Population.
<b>IV</b>	<b>Population Growth and its impact :</b> i Economic (Poverty and Unemployment) and Social (Housing and Slums) consequences. ii Environment (Pollution and Depletion of Resources), Population Policy in India.

**Suggested Readings:**

Bhende, Asha A. & Kanetkar Tara Principles of Population Studies.

Bogue, Donald J. Principles of Demography Bose, Ashish 1998 Demographic Diversity in India. B.R. Publications Delhi.

Hans Raj 1990 Fundamentals of Demography : Population Studies with Special Reference to India. Surjeet Publications, Delhi.

Banarjee, D.1985 Health and Family Planning Services in India, Lok Pradhan, New Delhi :

Mathus, T.R. 1986An Essay on the Principle of Population William Pickering, London.

Srivastava, O.S. 1998 Demography and Population Studies Vikas Publishing House, New Delhi.

(Note : - Students may also use any standard Hindi Medium book available in Sociology.)

**Sociology Syllabus**  
**BA-3<sup>rd</sup> year (Semester-V)**  
 Generic Elective-01  
 Course Code SOCL: 504  
**Course: Polity and Society in India**

Course Code	Code SOCL 504	
Credits-6	L (L=Lecture)=5	T (T=Tutorial)=1
Course Type	Generic Elective	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern :**

Minor Test (Marks)	Class Test/Tutorials/Assignments/Quiz/Seminars (Marks)	Attendance	Total Marks
15	10	5	30

**Course Content and Credit Scheme**

**Course Objective:**

This course seeks to introduce the students to the study of Indian politics from a sociological Perspective. In the process, it attempts to give the students theories, categories and conceptual tools to understand politics in relation to society in general

Unit	Topic
<b>I</b>	<b>Politics and Society in India:</b> (i) Meaning, Characteristics and Scope of Political Sociology (ii) Significance of Study of Political Sociology
<b>II</b>	<b>Political Identities :</b> (i) Caste as a Factor of Political Identity (ii) Religion and Ethnicity as a Factor of Political Identity
<b>III</b>	<b>Political Institutions :</b> (i) Role of Govt. and State (ii) Power and Authority.
<b>IV</b>	<b>Political Processes:</b> (i) Democracy, Civil Society and Bureaucracy (Meaning and Characteristics) (ii) Critical Appraisal of the role of Democracy and Bureaucracy in Political Processes

## **On Studying Politics and Society in India**

1.1 Chatterjee, Partha, 1997. *State and Politics in India*. Delhi: Oxford University Press, Introduction: A Political History of Independent India. pp. 1-39

1.2 Brass, Paul R, 1998. 'India: Democratic Progress and Problems' in Slig S. Harrison et al (ed.) *India and Pakistan: The First Fifty Years*. Woodrow Wilson Center Press, pp. 23-44

24

1.3 Spencer, Jonathan, 2007. *Anthropology, Politics and the State: Democracy and Politics in South Asia*. Cambridge: Cambridge University Press, Chapter 2. Locating the Political. pp. 19-47

1.4 Kaviraj, Sudipta. 1991. 'On State, Society and Discourse in India', in James Manor (ed.) *Rethinking Third World Politics*, London: Longman. pp. 72-99

## **2. Themes in Politics and Society in India:**

### **2.1 Political Economy**

2.1.1 Rudolph, Lloyd I, and Susanne Hoeber Rudolph, 1987. *In Pursuit Of Lakshmi*. Chicago: University of Chicago Press. Introduction, Chapter 1 & 7. pp. 1-59, 211-219

2.1.2 Vanaik, A. 2000, 'The Social Character of the Indian State', in Z. Hasan (ed.), *Politics and the State in India*, New Delhi: Sage, pp.89-107

### **2.2 Political Machine**

2.2.1 Bailey, F.G. 1968, 'Para-Political Systems', in M. J. Schwartz (ed.), *Local level Politics: Social and Cultural Perspectives*, London: University of London Press, pp.281-94

2.2.2 Gould, H. A. 1971, 'Local government roots of contemporary Indian politics', *Economic and Political Weekly*, vol.6 (7), pp.457-64

### **2.3 Political Identities: Nation, Caste, Religion and Ethnicity**

2.3.1 Sathyamurthy, T.V. 1997, 'Indian Nationalism: State of the Debate', in *Economic and Political Weekly*, vol.32 (14), p.715-721

2.3.2 Weiner, Myron. 2001, 'The Struggle for Equality: Caste in Indian Politics', in A. Kohli (ed.), *The Success of India's Democracy*, Cambridge: Cambridge University Press, pp.193-225

25

2.3.3 Baruah, Sanjib. 'Politics of Subnationalism: Society versus State in Assam', From Partha Chatterjee (ed.) *State and Politics in India*, Delhi:OUP. pp. 496 – 520

### **2.4 Political Institutions and Democratic Processes**

2.4.1 Manor, James. 1988, 'Parties and the Party System', in A. Kohli (ed.), *India's Democracy*, Princeton: Princeton University Press, pp. 62-98

2.4.2 Michelutti, Lucia. 2007, 'The Vernacularization of Democracy: Political Participation and Popular Politics in North India', *The Journal of the Royal Anthropological Institute*, vol.13 (3), pp. 639-656

## **3. Protest and Resistance in Indian Politics**

Shah, Ghanshyam. 'Grassroots Mobilizations in Indian Politics', in A. Kohli (ed.), *India's Democracy*, Princeton: Princeton University Press, pp. 262-304

**Sociology Syllabus**  
**BA-III<sup>rd</sup> Year (Semester-VI)**  
 Skill Enhancement Course SEC-04  
 Course Code: SOCL 601  
**Course: Theory and Practice of Development**

Course Code	CODE SOCL 601	
Credits-4	L (L=Lecture)=3	T(T=Tutorial)=1
Course Type	Skill Enhancement Course	

**Semester End Examination System:**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern:**

Minor Test (Marks)	Class Test/Tutorials/Assignments/Quiz/Seminars (Marks)	Attendance	Total Marks
15	10	5	30

**Course Content and Credit Scheme**

**Course Objective:**

This course aims to familiarize students with the arguments of development theory in the decades of 80s onwards and equip them with some of the methodology in development practices adopted since then.

Unit	Topic
<b>I</b>	<b>Development:</b> (i) Sociology of Development: Meaning and Conceptual History (ii) Social Change, Growth and Social Progress
<b>II</b>	<b>Recent Trends in Development:</b> (i) Global Inequalities in Development (Developed, Developing and Under Developed Nations (ii) Human Development Theory: Growth Vs Development.
<b>III</b>	<b>Post Development Theory:</b> (i) Knowledge as Power, Public Private Partnership (PPP) (ii) Participatory Development and Role of PRIs
<b>IV</b>	<b>Sustainable Development:</b> (i) Meaning, Characteristics and Strategies of Sustainable Development, (ii) Environmental Discourse (Ecology, Ecosystem and Society), UN Earth Charter 1992

**Suggested Readings:**

- Desai, A.R. 1979 Rural India in Transition, Popular Prakashan, Bombay.  
Desai, A.R. 1996 Rural Sociology in India, Popular Prakashan, Bombay.  
Dube, S.C. 1988 India's Changing Village, Himalayan Publishing House, Bombay.  
Maheshwari, S.R. 1985 Rural Development in India, Sage Publication, New Delhi.  
Marriot, McKim(ed.) 1995 Village India: Studies in the Little Community, University Press, Chicago.  
Pradhan, P.K. 1988 Land, Labour and Rural Poverty, Himalayan Publishing House, Bombay.  
Singh, K.S. 1982 People of India.

(Note : - Students may also use any standard Hindi Medium book available in Sociology.)

**Sociology Syllabus**  
**BA-Ist year (Semester-VI)**

Generic Elective 02

Course Code: SOCL 604

**Course: Economy and Society**

Course Code	Code: SOCL 604	
Credits-6	L (L=Lecture)=5	T(T=Tutorial)=1
Course Type	Generic Elective	

**Semester End Examination System :**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3.00 Hrs

**Continuous Comprehensive Assessment (CCA) Pattern :**

Minor Test (Marks)	Class Test/Tutorials/Assignments/Quiz/Seminars (Marks)	Attendance	Total Marks
15	10	5	30

**Course Content and Credit Scheme**

**Objective:**

The course introduces the students to the complex ways in which economic activity is embedded in social relations from a sociological view point.

Unit	Topic
<b>I</b>	<b>Economic sociology:</b> (i) Sociology of Economic Life (Meaning and Characteristics) (ii) Sociological Aspect of Economic Processes/Phenomenon.
<b>II</b>	<b>Mode of Production:</b> (i) Asiatic and Ancient (ii) Capitalist and Socialist.
<b>III</b>	<b>Contemporary Issues :</b> (i) Globalization: Meaning, Characteristics and its impact on society. (ii) Sustainable Development : Meaning and Indicators of Development, Global Trends of Development.
<b>IV</b>	<b>New Economic Sociology :</b> (i) Information, Communication and Technology Society, Post Industrial Society. (ii) Social Security and Alienation.

## **COURSE CONTENTS AND ITINERARY**

### **1. Sociological Aspects of Economic Phenomenon**

#### **1.1 Approaches: Formalism and Substantivism**

1.1.1 Wilk, R. and L. Cliggett. 2007. *'Economies and Cultures: Foundations of Economic Anthropology*. Chapter 1 pp. 1-14

27

1.1.2 Polanyi, K. 1958. "Economy as an Instituted Process" in M. Grammoter and R. Swedberg (eds.) 1992 *The Sociology of Economic Life* Boulder Colorado, West View Press. pp. 27-50

#### **1.2 Sociological Aspect of Economic Processes**

Smelser, Neil 2013 *The Sociology of Economic Life* Quid Pro Books (2nd Edition). New Orleans, Louisiana University Press

### **2. Modes of Production**

#### **2.1 Domestic Mode of Production**

2.1.1 Sahllins, M-1974 *Stone Age Economics*. London, Tavistock, Chapter 2-3

#### **2.2 Peasants**

2.2.1 Wolf, Eric 1966 *Peasants*. New Jersey Prentice Hall, Chapter-1

#### **2.3 Capitalism**

2.3.1 Swedberg, R 2003 *The Economic Sociology of Capitalism: An Introduction and An Agenda*, Cornell University

#### **2.4 Socialism**

2.4.1 Verdery, Kathrine 1996 „*What was Socialism, And what Comes Next?*” Princeton N.J. Princeton University. Press. Chapter-1, pp. 19-38

### **3. Contemporary Issues**

#### **3.1 Globalization**

3.1.1 Ritzer 2004 *The McDonaldisation of Society*. Pine Forge press Chapter- Introduction, 1,2.

28

3.1.2 Howes, David (ed) 1996 *Cross Cultural Consumption: global Markets and Local Realities*. London: Routledge, pp. 1-16

#### **3.2 Development**

3.2.1 Hulme, David and mark M. Turner *Sociology and Development:*

*Theories, Policies and Practices*, Prentice Hall Chapter-3 pp. 33-67



Total of Minor Test= 15

(B) Distribution of marks for evaluation of Tutorial/ Home Assignment etc.:-

1. 5 marks are assignment for the quality of contents and structure of the assignment
2. 5 marks are assigned for the clarity of language of the script (Hindi/ English) and its presentation in the class room.

Total marks 5+5 =10 marks

(C) Attendance = 5 marks

**Note: Paper setting Scheme for End Semester Examination (70 marks)**

Part	Section	No. Of Questions	Syllabus Coverage	Nature of Q & Answers	Questions to be attempted	Marks	Max. Marks
A	1	10	Complete	Objective (MCQ)	10	1 each	10
B	-	2	Unit- I		1	12	12
C	-	2	Unit- II		1	12	12
D	-	2	Unit- III		1	12	12
E	-	2	Unit- IV		1	12	12
F	-	2	Unit-V		1	12	12
Total							70

**Note: In numerical papers, there should be preferably 50 percent numerical questions in each unit.**

**B.Com: Semester IV**  
**Paper BC 4.4: E-COMMERCE**

**Duration: 3 hrs.**

**Marks: 50**

**Lectures: 40, Practical:26**

**Objectives:** The objective of this paper is to enable the student to become familiar with the mechanism for conducting business transactions through electronic means.

**CONTENTS**

UNIT	TOPIC	DETAILS
------	-------	---------

<b>1</b>	<b>Introduction</b>	<p>Meaning, nature, concepts, advantages, disadvantages and reasons for transacting online, types of E-Commerce, e-commerce business models (introduction , key elements of a business model and Categorizing major E-commerce business models), forces behind e-commerce.</p> <p><b>Technology used in E-commerce:</b> The dynamics of world wide web and internet( meaning, evolution and features) ; Designing, building and launching e-commerce website (A systematic approach involving decisions regarding selection of hardware, software, outsourcing vs. in-house development of a website)</p>
<b>2</b>	<b>Security and Encryption</b>	IT Act 2000: Definitions, Digital signature, Electronic governance, Attribution, acknowledgement and dispatch of electronic records, Regulation of certifying authorities, Digital signatures certificates, Duties of subscribers, Penalties and adjudication, Appellate Tribunal, Offences and Cyber-crimes
<b>3</b>	<b>IT Act 2000 and Cyber Crimes</b>	IT Act 2000: Definitions, Digital signature, Electronic governance, Attribution, acknowledgement and dispatch of electronic records, Regulation of certifying authorities, Digital signatures certificates, Duties of subscribers, Penalties and adjudication, Appellate Tribunal, Offences and Cyber-crimes
<b>4</b>	<b>E-payment System</b>	Models and methods of e–payments (Debit Card, Credit Card, Smart Cards, e-money), digital signatures (procedure, working and legal position), payment gateways, online banking (meaning, concepts, importance, electronic fund transfer, automated clearing house, automated ledger posting), risks involved in e-payments.
<b>5</b>	<b>On-line Business Transactions</b>	Meaning, purpose, advantages and disadvantages of transacting online, E-commerce applications in various industries like {banking, insurance, payment of utility bills, online marketing, e-tailing (popularity, benefits, problems and features), online services (financial, travel and career), auctions, online portal, online learning, publishing and entertainment} Online shopping (amazon, snapdeal, alibaba, flipkart, etc.)
<b>Practical</b>	<b>Website designing</b>	<p>Introduction to HTML; tags and attributes: Text Formatting, Fonts, Hypertext Links, Tables, Images, Lists, Forms, Frames, Cascading Style Sheets.</p> <p>E-payment system and online business transactions.</p>

**Note:**

1. There shall be 3 Credit Hrs. for lectures + One Credit hr. (2 Practical periods per week per batch) for Practical Lab
2. Latest edition of text books may be used.

**Suggested Readings:-**

1. Kenneth C. Laudon and Carlo Guercio Traver, *E-Commerce*, Pearson Education.
2. David Whiteley, *E-commerce: Strategy, Technology and Applications*, McGraw Hill Education

3. Bharat Bhaskar, *Electronic Commerce: Framework, Technology and Application, 4th Ed.*, McGraw Hill Education
4. PT Joseph, *E-Commerce: An Indian Perspective*, PHI Learning
5. KK Bajaj and Debjani Nag, *E-commerce*, McGraw Hill Education
6. TN Chhabra, *E-Commerce*, Dhanpat Rai & Co.
7. Sushila Madan, *E-Commerce*, Taxmann
8. TN Chhabra, Hem Chand Jain, and Aruna Jain, *An Introduction to HTML*, Dhanpat Rai & Co.
9. Bhardwaj Sushil and Puneet Kumar, *Fundamentals of E-Commerce*, Kalyani Publishers.
10. E-Commerce by V.K. Publications.

## ANNEXURE- I

CCA Scheme- Students enrolled for the Academic session 2017-18 onwards CCA will account 30% of total marks i.e. 100, which a student will get in a course. The breakup of 30% i.e. 30 marks is given

- |   |          |
|---|----------|
| 1. One minor test                                     | 15 marks |
| 2. Assignments/ seminars/ class test/ tutorials/ quiz | 10 marks |
| 3. Attendance   | 5 marks  |

It is approved that a student will have to pass both the components i.e. CCA and ESE separately to become eligible to be declared successful for the course.

### Distribution of marks for CCA in Each course in each semester

- |                              |          |
|------------------------------|----------|
| 1. Minor test                | 15 marks |
| 2. Tutorial/ Home Assignment | 10 marks |
| 3. Attendance                | 5 marks  |

Total = 30 marks

**Continuous Comprehensive Assessment (CCA) pattern:-** Instruments for conducting Minor Test and Evaluation of Tutorial/ Home Assignments/ seminars/ quiz/ etc.

Minor test (Marks)	Class test/ tutorials/ assignment/ seminar presentation	Attendance	Total marks
15	10	5	30

Time allowed for conducting Minor Test will be 1.3 hours

(A)\* Mode of conducting Minor Test (15 Marks). Minor Test will be conducted after the completion of 48 teaching days (8 weeks)

Three types of questions will be set in Minor Test:-

1. 5MCQ (Choice: 1 out of 4) True/ False type of questions of 1 marks each= 5 marks
2. Two questions of short answer type in about 150 words each of 2.5 marks= 5 marks
3. One question of about 500 words, carrying 5 marks = 5 marks

**Marks (Minor Test) = (1+2+3) = (5+5+5) = 15 marks**

Total of Minor Test= 15

(B) Distribution of marks for evaluation of Tutorial/ Home Assignment etc.:-

1. 5 marks are assignment for the quality of contents and structure of the assignment
2. 5 marks are assigned for the clarity of language of the spirit (Hindi/ English) and its presentation in the class room.

Total marks 5+5 =10 marks

(C) Attendance = 5 marks

**Note: Paper setting Scheme for End Semester Examination (50 marks)**

[illegible]

		Questions	Coverage	Q & Answers	to be attempted		Marks
A	1	10	Complete	Objective (MCQ)	10	1 each	10
B	-	2	Unit- I		1	12	12
C	-	2	Unit- II		1	12	12
D	-	2	Unit- III		1	12	12
E	-	2	Unit- IV		1	12	12
F	-	2	Unit-V		1	12	12
Total							70

**Note:** In numerical papers, there should be preferably 50 percent numerical questions in each unit.

### **B.Com.: Semester V**

#### **Paper BC 5.3: ENTREPRENEURSHIP**

**Duration: 3 hrs.**

**Marks: 70**

**Lectures: 65**

**Objective:** The course aims to orient the learner toward entrepreneurship as a career option and creative thinking and behavior.

#### **Contents**

UNIT	TOPIC	DETAILS
1	Introduction	Meaning, elements, determinants and importance of entrepreneurship and creative behaviour; Entrepreneurship and

		creative response to the society' problems and at work; Dimensions of entrepreneurship: intrapreneurship, technopreneurship, cultural entrepreneurship, international entrepreneurship, netpreneurship, ecopreneurship and social entrepreneurship
<b>2</b>	<b>Entrepreneurship and Micro, Small and Medium Enterprises</b>	Concept of business groups and role of business houses and family business in India; The contemporary role models in Indian business: their values, business philosophy and behavioural orientations; Conflict in family business and its resolution
<b>3</b>		Public and private system of stimulation, support and sustainability of entrepreneurship. Requirement, availability and access to finance, marketing assistance, technology, and industrial accommodation, Role of industries/entrepreneur's associations and self-help groups, The concept, role and functions of business incubators, angel investors, venture capital and private equity fund.
<b>4</b>	<b>Sources of business ideas and tests of feasibility</b>	Significance of writing the business plan/ project proposal; Contents of business plan/ project proposal; Designing business processes, location, layout, operation, planning & control; preparation of project report (various aspects of the project report such as size of investment, nature of product, market potential may be covered); Project submission/ presentation and appraisal thereof by external agencies, such as financial/non-financial institutions
<b>5</b>	<b>Mobilising Resources</b>	Mobilising resources for start-up. Accommodation and utilities; Preliminary contracts with the vendors, suppliers, bankers, principal customers; Contract management: Basic start-up problems

#### **Suggested Readings:-**

1. Kuratko and Rao, *Entrepreneurship: A South Asian Perspective*, Cengage Learning.
2. Robert Hisrich, Michael Peters, Dean Shepherd, *Entrepreneurship*, McGraw-Hill Education
3. Desai, Vasant. *Dynamics of Entrepreneurial Development and Management*. Mumbai, Himalaya Publishing House.
4. Dollinger, Mare J. *Entrepreneurship: Strategies and Resources*. Illinois, Irwin.
5. Holt, David H. *Entrepreneurship: New Venture Creation*. Prentice-Hall of India, New Delhi.
6. Plsek, Paul E. *Creativity, Innovation and Quality*. (Eastern Economic Edition), New Delhi: Prentice-Hall of India. ISBN-81-203-1690-8.
7. Singh, Nagendra P. *Emerging Trends in Entrepreneurship Development*. New Delhi: ASEED.
8. S.S Khanka, *Entrepreneurial Development*, S. Chand & Co, Delhi.
9. K Ramachandran, *Entrepreneurship Development*, McGraw-Hill Education
10. SIDBI Reports on Small Scale Industries Sector.
11. Arora Renu and Sood S.K., *Entrepreneurial Development*, Kalyani Publishers.
12. *Entrepreneurial Development* by V.K. Publications.
13. Dr. G.K. Varshney, *Fundamentals of Entrepreneurship*, Sahitya Bhawan Publications.

**Note: Latest edition of text books may be used.**

## ANNEXURE- I

CCA Scheme- Students enrolled for the Academic session 2017-18 onwards CCA will account 30% of total marks i.e. 100, which a student will get in a course. The breakup of 30% i.e. 30 marks is given

- |   |          |
|---|----------|
| 1. One minor test                                     | 15 marks |
| 2. Assignments/ seminars/ class test/ tutorials/ quiz | 10 marks |
| 3. Attendance   | 5 marks  |

It is approved that a student will have to pass both the components i.e. CCA and ESE separately to become eligible to be declared successful for the course.

### Distribution of marks for CCA in Each course in each semester

- |                              |          |
|------------------------------|----------|
| 1. Minor test                | 15 marks |
| 2. Tutorial/ Home Assignment | 10 marks |
| 3. Attendance                | 5 marks  |

Total = 30 marks

**Continuous Comprehensive Assessment (CCA) pattern:-** Instruments for conducting Minor Test and Evaluation of Tutorial/ Home Assignments/ seminars/ quiz/ etc.

Minor test (Marks)	Class test/ tutorials/ assignment/ seminar presentation	Attendance	Total marks
15	10	5	30

Time allowed for conducting Minor Test will be 1.3 hours

(A)\* Mode of conducting Minor Test (15 Marks). Minor Test will be conducted after the completion of 48 teaching days (8 weeks)

Three types of questions will be set in Minor Test:-

1. 5MCQ (Choice: 1 out of 4) True/ False type of questions of 1 marks each= 5 marks
2. Two questions of short answer type in about 150 words each of 2.5 marks= 5 marks
3. One question of about 500 words, carrying 5 marks = 5 marks

**Marks (Minor Test) = (1+2+3) = (5+5+5) = 15 marks**

Total of Minor Test= 15

A	1	10	Complete	Objective (MCQ)	10	1 each	10
B	-	2	Unit- I		1	12	12
C	-	2	Unit- II		1	12	12
D	-	2	Unit- III		1	12	12
E	-	2	Unit- IV		1	12	12
F	-	2	Unit-V		1	12	12
Total							70

### Paper BC 6.1(c): MANAGEMENT ACCOUNTING

**Duration: 3 hrs.**

**Marks: 70**

**Lectures: 65**

**Objective:** The course aims to impart the students, knowledge about the use of financial, cost and other data for the purpose of managerial planning, control and decision making.

#### **Contents**

UNIT	TOPIC	DETAILS
1	<b>Introduction and Contemporary Issues</b>	Meaning, Objectives, Nature and Scope of management accounting, Difference between cost accounting and management accounting, Cost control and Cost reduction, Cost management. Responsibility Accounting: Concept, Significance, Different Responsibility Centres, Divisional Performance Measurement: Financial and Non-Financial measures. Transfer Pricing



<b>2</b>	<b>Budgetary Control</b>	Budgeting and Budgetary Control: Concept of budget, budgeting and budgetary control, objectives, merits, and limitations. Budget administration. Functional budgets. Fixed and flexible budgets. Zero base budgeting. Programme and performance budgeting.
<b>3</b>	<b>Standard Costing</b>	Standard Costing and Variance Analysis: Meaning of standard cost and standard costing, advantages, limitations and applications. Variance Analysis – material, labour, overheads and sales variances. Disposition of Variances, Control Ratios.
<b>4</b>	<b>Marginal Costing</b>	Absorption versus Variable Costing: Distinctive features and income determination. Cost-Volume-Profit Analysis, Profit / Volume ratio. Break-even analysis-algebraic and graphic methods. Angle of incidence, margin of safety, Key factor, determination of cost indifference point.
<b>5</b>	<b>Decision Making</b>	Steps in Decision Making Process, Concept of Relevant Costs and Benefits, Various short term decision making situations – profitable product mix, Acceptance or Rejection of special/ export offers, Make or buy, Addition or Elimination of a product line, sell or process further, operate or shut down. Pricing Decisions: Major factors influencing pricing decisions, various methods of pricing

#### **Suggested Readings:-**

1. Charles T. Horngren, Gary L. Sundem, Dave Burgstahler, Jeff O. Schatzberg. Introduction to Management Accounting , Pearson Education.
2. Anthony A. Atkinson, Robert S. Kaplan, Ella Mae Matsumura, S. Mark Young. Management Accounting. Dorling Kindersley(India) Pvt. Ltd.
3. Singh, Surender. Management Accounting, Scholar Tech Press, New Delhi.
4. Garrison H., Ray and Eric W. Noreen. Managerial Accounting. McGraw Hill.
5. Goel, Rajiv, Management Accounting. International Book House,
6. Arora, M.N. Management Accounting . Vikas Publishing House, New Delhi.
7. Maheshwari, S.N. and S.N. Mittal. Management Accounting. Shree Mahavir Book Depot, New Delhi.
8. Singh, S. K. and Gupta Lovleen. Management Accounting – Theory and Practice. Pinnacle Publishing House.
9. Gupta Shashi K., Management Accounting, Kalyani Publishers.
10. Khan, M.Y. and Jain, P.K. Management Accounting. McGraw Hill Education
11. H.V. Jhamb, Fundamentals of Management Accounting, Ane Books Pvt. Ltd.
12. Management Accounting by V.K. Publications.
13. Spectrum Management Accounting.

**Note: Latest edition of text books may be used.**

#### **ANNEXURE- I**

CCA Scheme- Students enrolled for the Academic session 2017-18 onwards CCA will account 30% of total marks i.e. 100, which a student will get in a course. The breakup of 30% i.e. 30 marks is given

- |   |          |
|---|----------|
| 1. One minor test                                     | 15 marks |
| 2. Assignments/ seminars/ class test/ tutorials/ quiz | 10 marks |
| 3. Attendance   | 5 marks  |

It is approved that a student will have to pass both the components i.e. CCA and ESE separately to become eligible to be declared successful for the course.

**Distribution of marks for CCA in Each course in each semester**

- |                              |          |
|------------------------------|----------|
| 1. Minor test                | 15 marks |
| 2. Tutorial/ Home Assignment | 10 marks |
| 3. Attendance                | 5 marks  |

Total = 30 marks

**Continuous Comprehensive Assessment (CCA) pattern:-** Instruments for conducting Minor Test and Evaluation of Tutorial/ Home Assignments/ seminars/ quiz/ etc.

Minor test (Marks)	Class test/ tutorials/ assignment/ seminar presentation	Attendance	Total marks
15	10	5	30

Time allowed for conducting Minor Test will be 1.3 hours

(A)\* Mode of conducting Minor Test (15 Marks). Minor Test will be conducted after the completion of 48 teaching days (8 weeks)

Three types of questions will be set in Minor Test:-

1. 5MCQ (Choice: 1 out of 4) True/ False type of questions of 1 marks each= 5 marks
2. Two questions of short answer type in about 150 words each of 2.5 marks= 5 marks
3. One question of about 500 words, carrying 5 marks = 5 marks

**Marks (Minor Test) = (1+2+3) = (5+5+5) = 15 marks**

**Paper BC 6.2(c): FUNDAMENTALS OF INVESTMENT**

**Duration: 3 hrs.**

**Marks: 70**

**Lectures: 65**

**Objective:** The purpose of this course is to familiarize the students with different investment alternatives, introduce them to the framework of their analysis and valuation and highlight the role of investor protection.

**Contents:**

UNIT	TOPIC	DETAILS
1	The Investment Environment	The investment decision process, Types of Investments – Commodities, Real Estate and Financial Assets, the Indian securities market, the market participants and trading of securities, security market indices, sources of financial information, Concept of return and risk, Impact of Taxes and Inflation on return.

<b>2</b>	<b>Fixed Income Securities</b>	Bond features, types of bonds, estimating bond yields, Bond Valuation types of bond risks, default risk and credit rating.
<b>3</b>	<b>Approaches to Equity Analysis</b>	Introductions to Fundamental Analysis, Technical Analysis and Efficient Market Hypothesis, dividend capitalisation models, and price-earnings multiple approach to equity valuation.
<b>4</b>	<b>Portfolio Analysis and Financial Analysis</b>	Portfolio and Diversification, Portfolio Risk and Return; Mutual Funds; Introduction to Financial Derivatives; Financial Derivatives Markets in India
<b>5</b>	<b>Investor Protection</b>	Role of SEBI and stock exchanges in investor protection; Investor grievances and their redressal system, insider trading, investors' awareness and activism

### **Suggested Readings:-**

1. C.P. Jones, Investments Analysis and Management, Wiley, 8th ed.
2. Prasanna Chandra, Investment Analysis and Portfolio Management, McGraw Hill Education
3. R.P. Rustogi, Fundamentals of Investment, Sultan Chand & Sons, New Delhi.
4. N.D. Vohra and B.R. Bagri, Futures and Options, McGraw Hill Education
5. Mayo, An Introduction to Investment, Cengage Learning
6. Bhullar Pritpal Singh, Fundamentals of Investment, Kalyani Publishers.
7. Spectrum Investment Management.
8. Investment Management by V.K. Publications.

**Note: Latest edition of text books may be used.**

### **ANNEXURE- I**

CCA Scheme- Students enrolled for the Academic session 2017-18 onwards CCA will account 30% of total marks i.e. 100, which a student will get in a course. The breakup of 30% i.e. 30 marks is given

- |   |          |
|---|----------|
| 1. One minor test                                     | 15 marks |
| 2. Assignments/ seminars/ class test/ tutorials/ quiz | 10 marks |
| 3. Attendance   | 5 marks  |

It is approved that a student will have to pass both the components i.e. CCA and ESE separately to become eligible to be declared successful for the course.

### **Distribution of marks for CCA in Each course in each semester**

- |                              |          |
|------------------------------|----------|
| 1. Minor test                | 15 marks |
| 2. Tutorial/ Home Assignment | 10 marks |
| 3. Attendance                | 5 marks  |

Total = 30 marks

**Continuous Comprehensive Assessment (CCA) pattern:-** Instruments for conducting Minor Test and Evaluation of Tutorial/ Home Assignments/ seminars/ quiz/ etc.

Minor test (Marks)	Class test/ tutorials/ assignment/ seminar presentation	Attendance	Total marks
15	10	5	30

Time allowed for conducting Minor Test will be 1.3 hours

(A)\* Mode of conducting Minor Test (15 Marks). Minor Test will be conducted after the completion of 48 teaching days (8 weeks)

Three types of questions will be set in Minor Test:-

1. 5MCQ (Choice: 1 out of 4) True/ False type of questions of 1 marks each= 5 marks
2. Two questions of short answer type in about 150 words each of 2.5 marks= 5 marks
3. One question of about 500 words, carrying 5 marks = 5 marks

**Marks (Minor Test) = (1+2+3) = (5+5+5) = 15 marks**

Total of Minor Test= 15

(B) Distribution of marks for evaluation of Tutorial/ Home Assignment etc.:-

1. 5 marks are assignment for the quality of contents and structure of the assignment
2. 5 marks are assigned for the clarity of language of the script (Hindi/ English) and its presentation in the class room.

Total marks 5+5 =10 marks

(C) Attendance = 5 marks

**Note: Paper setting Scheme for End Semester Examination (70 marks)**

Part	Section	No. Of Questions	Syllabus Coverage	Nature of Q & Answers	Questions to be attempted	Marks	Max. Marks
A	1	10	Complete	Objective (MCQ)	10	1 each	10
B	-	2	Unit- I		1	12	12

### **Paper BC 6.3 : PERSONAL SELLING AND SALESMANSHIP**

**Duration: 3 hrs.**

**Marks: 70**

**Lectures: 65**

**Objective:** The purpose of this course is to familiarize the students with the fundamentals of personal selling and the selling process. They will be able to understand selling as a career and what it takes to be a successful salesman.

**Contents:**

UNIT	TOPIC	DETAILS
1	<b>Introduction to Personal Selling</b>	Nature and importance of personal selling, myths of selling, Difference between Personal Selling, Salesmanship and Sales Management, Characteristics of a good salesman, types of selling situations, types of salespersons, Career opportunities in selling, Measures for making selling an attractive career.
2	<b>Buying Motives</b>	<b>Buying Motives:</b> Concept of motivation, Maslow's theory of need hierarchy; Dynamic nature of motivation; Buying motives and their uses in personal selling.
3	<b>Selling Process</b>	<b>Selling Process:</b> Prospecting and qualifying; Pre-approach; Approach; Presentation and demonstration; handling of objections; Closing the sale; Post sales activities.
4	<b>Sales Reports</b>	<b>Sales Reports:</b> reports and documents; sales manual, Order Book, Cash Memo; Tour Diary, Daily and Periodical Reports; Ethical aspects of Selling
5	<b>Personal Selling and Merchandising</b>	AIDA Model of selling, Distribution Networks relationship, Advertisement and Personal Selling.

#### **Suggested Readings:-**

1. Spiro, Stanton, and Rich, Management of the Sales force, McGraw Hill.
2. Rusell, F. A. Beach and Richard H. Buskirk, Selling: Principles and Practices, McGraw Hill
3. Futrell, Charles, Sales Management: Behaviour, Practices and Cases, The Dryden Press.
4. Still, Richard R., Edward W. Cundiff and Norman A. P. Govoni, Sales Management: Decision Strategies and Cases, Prentice Hall of India Ltd., New Delhi,
5. Johnson, Kurtz and Schueing, Sales Management, McGraw Hill
6. Pedesson, Charles A. Wright, Milburn d. And Weitz, Barton A., Selling: Principles and Methods, Richard, Irvin
7. Kapoor Neeru, Advertising and personal Selling, Pinnacle, New Delhi.
8. Advertising and Sales Management by V.K. Publications.
9. Amandeep Kaur, Advertising and Sales Management by Kalyani Publishers.

**Note: Latest edition of text books may be used.**

#### **ANNEXURE- I**

CCA Scheme- Students enrolled for the Academic session 2017-18 onwards CCA will account 30% of total marks i.e. 100, which a student will get in a course. The breakup of 30% i.e. 30 marks is given

- |   |          |
|---|----------|
| 1. One minor test                                     | 15 marks |
| 2. Assignments/ seminars/ class test/ tutorials/ quiz | 10 marks |
| 3. Attendance   | 5 marks  |

It is approved that a student will have to pass both the components i.e. CCA and ESE separately to become eligible to be declared successful for the course.

**Distribution of marks for CCA in Each course in each semester**

- |                              |          |
|------------------------------|----------|
| 1. Minor test                | 15 marks |
| 2. Tutorial/ Home Assignment | 10 marks |
| 3. Attendance                | 5 marks  |

Total = 30 marks

**Continuous Comprehensive Assessment (CCA) pattern:-** Instruments for conducting Minor Test and Evaluation of Tutorial/ Home Assignments/ seminars/ quiz/ etc.

Minor test (Marks)	Class test/ tutorials/ assignment/ seminar presentation	Attendance	Total marks
15	10	5	30

Time allowed for conducting Minor Test will be 1.3 hours

(A)\* Mode of conducting Minor Test (15 Marks). Minor Test will be conducted after the completion of 48 teaching days (8 weeks)

Three types of questions will be set in Minor Test:-

1. 5MCQ (Choice: 1 out of 4) True/ False type of questions of 1 marks each= 5 marks
2. Two questions of short answer type in about 150 words each of 2.5 marks= 5 marks
3. One question of about 500 words, carrying 5 marks = 5 marks

**Marks (Minor Test) = (1+2+3) = (5+5+5) = 15 marks**

Total of Minor Test= 15

(B) Distribution of marks for evaluation of Tutorial/ Home Assignment etc.:-

1. 5 marks are assignment for the quality of contents and structure of the assignment
2. 5 marks are assigned for the clarity of language of the spirit (Hindi/ English) and its presentation in the class room.

Total marks 5+5 =10 marks

(C) Attendance = 5 marks



**Note: Paper setting Scheme for End Semester Examination (70 marks)**

Part	Section	No. Of Questions	Syllabus Coverage	Nature of Q & Answers	Questions to be attempted	Marks	Max. Marks
A	1	10	Complete	Objective (MCQ)	10	1 each	10
B	-	2	Unit- I		1	12	12
C	-	2	Unit- II		1	12	12
D	-	2	Unit- III		1	12	12
E	-	2	Unit- IV		1	12	12
F	-	2	Unit-V		1	12	12
Total							70

**Paper BC 6.4: INDIAN ECONOMY**

**Duration: 3 hrs.**

**Marks: 70**

**Lectures: 65**

**Objective:** This course seeks to enable the student to grasp the major economic problems in India and their solutions. It also seeks to provide an understanding of modern tools of macro-economic analysis and policy framework.

**Contents:**

UNIT	TOPIC	DETAILS
1	<b>Basic Issues and Features of Indian Economy</b>	Concept and Measures of Development and Underdevelopment; Human Development; Composition of national income and occupational structure
2	<b>Policy Regimes</b>	a) The evolution of planning and import substituting industrialization. b) Economic Reforms since 1991.

		c) Monetary and Fiscal policies with their implications on economy
<b>3</b>	<b>Growth, Development and Structural Change</b>	<p>a) The experience of Growth, Development and Structural Change in different phases of growth and policy regimes across sectors and regions.</p> <p>b) The Institutional Framework: Patterns of assets ownership in agriculture and industry; Policies for restructuring agrarian relations and for regulating concentration of economic power;</p> <p>c) Changes in policy perspectives on the role of institutional framework after 1991.</p> <p>d) Growth and Distribution; Unemployment and Poverty; Human Development; Environmental concerns.</p> <p>e) Demographic Constraints: Interaction between population change and economic development.</p>
<b>4</b>	<b>Sectoral Trends and Issues</b>	<p><b>a) Agriculture Sector:</b> Agrarian growth and performance in different phases of policy regimes i.e. pre green revolution and the two phases of green revolution; Factors influencing productivity and growth; the role of technology and institutions; price policy, the public distribution system and food security.</p> <p><b>b) Industry and Services Sector:</b> Phases of Industrialisation – the rate and pattern of industrial growth across alternative policy regimes; Public sector – its role, performance and reforms; The small scale sector; Role of Foreign capital.</p> <p><b>c) Financial Sector:</b> Structure, Performance and Reforms. Foreign Trade and balance of Payments: Structural Changes and Performance of India's Foreign Trade and Balance of Payments; Trade Policy Debate; Export policies and performance; Macro Economic Stabilisation and Structural Adjustment; India and the WTO, Role of FDI, Capital account convertibility,</p>
<b>5</b>	<b>Inflation, Unemployment and Labour Market</b>	<p>Inflation: Causes of rising and falling inflation, inflation and interest rates, social costs of inflation; Unemployment – natural rate of unemployment, frictional and wait unemployment. Labour market and its interaction with production system; Phillips curve, the trade-off between inflation and unemployment, sacrifice ratio, role of expectations adaptive and rational.</p>

#### Suggested Readings:-

1. Mishra and Puri, Indian Economy, Himalaya Publishing House
2. IC Dhingra, Indian Economy, Sultan Chand & Sons
3. Gaurav Dutt and KPM Sundarum, Indian Economy, S. Chand & Company.
4. Uma Kapila (ed), "Indian Economy since Independence", Relevant articles.
5. Bhagwati, J. and Desai, P. India: Planning for industrialization, OUP, Ch 2.

6. Patnaik, Prabhat. Some Indian Debates on Planning. T. J. Byres (ed.). The Indian Economy: Major Debates since Independence, OUP.
7. Ahluwalia, Montek S. State-level Performance under Economic Reforms in India in A. O. Krueger. (ed.). Economic Policy Reforms and the Indian Economy, The University of Chicago Press.
8. Mankiw, N. Gregory. Principles of Macroeconomics. Cengage Learning
9. Rudiger Dornbusch, Stanley Fischer, and Richard Startz, Macroeconomics. McGraw-Hill Education
10. Oliver J. Blanchard, Macroeconomics, Pearson Education
11. G. S. Gupta, Macroeconomics: Theory and Applications, McGraw-Hill Education
12. Paul A Samuelson, William D Nordhaus, Sudip Chaudhuri, Macroeconomic, McGraw-Hill
13. Jain T.R., Indian Economy, V.K. Publications.
14. Dhar P.K., Indian Economy, Kalyani Publishers.

**Note: Latest edition of text books may be used.**

#### **ANNEXURE- I**

CCA Scheme- Students enrolled for the Academic session 2017-18 onwards CCA will account 30% of total marks i.e. 100, which a student will get in a course. The breakup of 30% i.e. 30 marks is given

- |   |          |
|---|----------|
| 1. One minor test                                     | 15 marks |
| 2. Assignments/ seminars/ class test/ tutorials/ quiz | 10 marks |
| 3. Attendance   | 5 marks  |

It is approved that a student will have to pass both the components i.e. CCA and ESE separately to become eligible to be declared successful for the course.

#### **Distribution of marks for CCA in Each course in each semester**

- |                              |          |
|------------------------------|----------|
| 1. Minor test                | 15 marks |
| 2. Tutorial/ Home Assignment | 10 marks |
| 3. Attendance                | 5 marks  |

Total = 30 marks

**Continuous Comprehensive Assessment (CCA) pattern:-** Instruments for conducting Minor Test and Evaluation of Tutorial/ Home Assignments/ seminars/ quiz/ etc.

Minor test (Marks)	Class test/ tutorials/ assignment/ seminar presentation	Attendance	Total marks
15	10	5	30

Time allowed for conducting Minor Test will be 1.3 hours

(A)\* Mode of conducting Minor Test (15 Marks). Minor Test will be conducted after the completion of 48 teaching days (8 weeks)

Three types of questions will be set in Minor Test:-

1. 5MCQ (Choice: 1 out of 4) True/ False type of questions of 1 marks each= 5 marks
2. Two questions of short answer type in about 150 words each of 2.5 marks= 5 marks
3. One question of about 500 words, carrying 5 marks = 5 marks

**Marks (Minor Test) = (1+2+3) = (5+5+5) = 15 marks**

Total of Minor Test= 15

(B) Distribution of marks for evaluation of Tutorial/ Home Assignment etc.:-

1. 5 marks are assignment for the quality of contents and structure of the assignment
2. 5 marks are assigned for the clarity of language of the script (Hindi/ English) and its presentation in the class room.

Total marks 5+5 =10 marks

(C) Attendance = 5 marks

**Note: Paper setting Scheme for End Semester Examination (70 marks)**

Part	Section	No. Of Questions	Syllabus Coverage	Nature of Q & Answers	Questions to be attempted	Marks	Max. Marks
A	1	10	Complete	Objective (MCQ)	10	1 each	10
B	-	2	Unit- I		1	12	12
C	-	2	Unit- II		1	12	12
D	-	2	Unit- III		1	12	12
E	-	2	Unit- IV		1	12	12
F	-	2	Unit-V		1	12	12
Total							70

## CBCS BACHELOR IN BUSINESS ADMINISTRATION (Template)-144 credits Three Years (6-Semesters)

(BBA –I & II Semester effective from 2016-17 (**already approved by Academic Council**), BBA-III  
& IV Semester effective from 2017-18 and BBA V & VI Semester effective from 2018-19)

Course Structure			Credits	Marks		
Course No.	Semester I			CCA	ESE	Total
101	Environmental Science	Ability Enhancement Compulsory (AECC)-I	Common with B.A./B.Sc./B.Com.			
102	Fundamental Management of & Organizational Behaviour	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
103	Statistics of Business Decisions	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
104	Entrepreneurship Development	Generic Elective (GE)-I	6 (L4 +T2)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
Semester-II						
201	Business Communication (Language: English/ MIL)	Ability Enhancement Compulsory (AECC)-II	Common with B.Com. Hon's			
202	Managerial Economics	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
203	Business Accounting	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
204	Ethics & Corporate Social Responsibility	Generic Elective (GE)-II	6 (L4 +T2)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)

## **ANNEXURE-I**

### **CBCS Bachelor in Business Administration** **Syllabus for III & IV Semester effective from session 2017-18 & for V** **and VI Semester effective from Session 2018-19 onwards**

Course Structure			Credits	Marks			
Course No.	Semester III			CCA	ESE	Total	
301	Macroeconomics	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
302	Principles of Marketing	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
303	Management Accounting	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
304	India’s Diversity & Business	Generic Elective -III	6 (L4 +T2)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
305	Personality Development & Communication Skills	Skill Enhancement Course-I	6 (L4 +P2)	30 (Max.) 13 (Min)	Theory 50(Max.) 23(Min)	Practical 20(Max.) 9(Min.) Internal	100 (Max) 45(Min)
Semester IV							
401	Business Research	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
402	Human Resource Management	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
403	Financial Management	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
404	Tax Planning	Generic Elective -IV	6 (L4 +T2)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
405	IT Tools in Business	Skill Enhancement Course-II	6 (L4 +P2)	30 (Max.) 13 (Min)	Theory 50(Max.) 23(Min)	Practical 20(Max.) 9(Min.) Internal	100 (Max) 45(Min)
Semester V							
501	Quantitative Techniques for Management	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
502	Legal Aspects of Business	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	
503	(DSE-I Finance) Investment Banking & Financial	DSE  Note: Students can opt any one	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)	

	Services <b>OR</b> <b>(DSE-II Marketing)</b> Consumer Behaviour <b>OR</b> <b>(DSE-III Human Resource)</b> HRD: Systems and Strategies <b>OR</b> <b>(DSE-IV Management of Global Business)</b> International Trade: Policies and Strategies	of the specialization in V <sup>th</sup> Semester and the same will continue in the VI <sup>th</sup> Semester.				
<b>504</b>	<b>(DSE-I Finance)</b> Investment Analysis & Portfolio Management <b>OR</b> <b>(DSE-II Marketing)</b> Retail Management <b>OR</b> <b>(DSE-III Human Resource)</b> Training and Management Development <b>OR</b> <b>(DSE-IV Management of Global Business)</b> Global Business Environment	DSE	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
<b>Semester VI</b>						
<b>601</b>	Business Policy & Strategy	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
<b>602</b>	Financial Institutions & Markets	Core Course	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)
<b>603</b>	<b>(DSE-I Finance)</b> Project Appraisal & Analysis <b>OR</b>	DSE	6 (L5 +T1)	30 (Max.) 13 (Min)	70 (Max) 32(Min)	100 (Max) 45(Min)

	<b>(DSE-II Marketing)</b> Distribution & Supply Chain Management <b>OR</b>					
	<b>(DSE-III Human Resource)</b> Performance and Compensation Management <b>OR</b>					
	<b>(DSE-IV Management of Global Business)</b> Multinational Business Finance					
<b>604</b>	<b>(DSE-I Finance)</b> Project Report <b>OR</b>	DSE	6			100 (Max) 45(Min) <b>(External Evaluation )</b>
	<b>(DSE-II Marketing)</b> Project Report <b>OR</b>					
	<b>(DSE-III Human Resource)</b> Project Report <b>OR</b>					
	<b>(DSE-IV Management of Global Business)</b> Project Report					



### **Continuous Comprehensive Assessment (CCA) Pattern:-**

Distribution of marks for CCA in each course in each Semester and instructions for conducting Minor Test and Evaluation of Tutorial/ Home Assignments/ Seminars/ quiz etc is as follows.

#### **Distribution of marks for CCA in each course in each semester**

<b>Minor Test (Minor)</b>	<b>Class Test/ Assignment/ Presentation</b>	<b>Tutorials/ Seminar/</b>	<b>Attendance</b>	<b>Total Marks</b>
15	10		5	30

Time Allowed for conduction of Minor Test will be one and half hours.

#### **(A) Mode of Conduction Minor Test (15 Marks).**

Minor Test will be conducted after the completion of 48 teaching days (8 Weeks) three types of questions will be set in Minor Test:-

- Five MCQ (Choice: 1 out of 4) (True/ False) type of 1 mark each=5 Marks.
- Two questions of Short answer type in about 100-150 words each of 2.5 marks=5 marks.
- One question of about 500 words, carrying 5 marks=5 marks.

**Marks (Minor Test)=(i + ii+ iii)=5+5+5=15 marks.**

Students will have to pass both the components i.e. CCA and ESE separately to become eligible to be declared successful for the course.

#### **(B) Distribution of marks for evaluation of tutorials/ Home Assignments etc:-**

- 5 Marks are to be assigned for the quality of content and structure of the assignment.
- 5 Marks are assigned for presentation in the class room.

**Total Marks=5+5=10 Marks.**

#### **(C) Attendance=5 Marks**

## Paper Setting Scheme

End Semester Examination for all the courses except Course No-305 (Personality Development and Communication Skills), Course No 405 (IT Tools in Business) and Course No. 604 (Project Report)

(70 Marks)

Part	Section	No. of Questions	Syllabus Covered	Nature of Questions & Answers	Questions to be attempted	Marks	Max. Marks
A	1	10	Complete	Objective (MCQ)	10	1.5 each	<b>15</b>
	2	8	Complete	Short answer approx. 100 words	5	3 each	<b>15</b>
B	-	2 (One question from each section)	Unit-I	About 500 words	1	10	<b>10</b>
C	-	2 (One question from each section)	Unit-II	About 500 words	1	10	<b>10</b>
D	-	2 (One question from each section)	Unit-III	About 500 words	1	10	<b>10</b>
E	-	2 (One question from each section)	Unit-IV	About 500 words	1	10	<b>10</b>
<b>Total Marks=</b>							<b>70</b>

**Note: In Numerical paper, there should be preferably 50% numerical questions in each unit.**

## Paper Setting Scheme

**Course No. 305 (Personality Development and Communication Skills) and  
Course No. 405 (IT Tools in Business)**

**50 Marks**

Part	Section	No. Of Questions	Syllabus Covered	Nature of Questions & Answers	Questions to be attempted	Marks	Max. Marks
A	1	10	Complete	Objective (MCQ)	10	1 each	<b>10</b>
	2	6	Complete	Short answer approx. 75 words	4	2 each	<b>8</b>
B	-	2 (One question from each section)	Unit-I	About 300 words	1	8	<b>8</b>
C	-	2 (One question from each section)	Unit-II	About 300 words	1	8	<b>8</b>
D	-	2 (One question from each section)	Unit-III	About 300 words	1	8	<b>8</b>
E	-	2 (One question from each section)	Unit-IV	About 300 words	1	8	<b>8</b>
<b>Total Marks=</b>							<b>50</b>

**Course No. 604 (Project Report) requires no paper setting.** Only Project evaluation will be made by the external examiner out of 100 marks)

## Bachelor in Business Administration

### BBA- 2<sup>nd</sup> Year (3<sup>rd</sup> Semester)

#### Course: Macroeconomics

<b>Course Code: 301</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### Semester End Examination System

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### Continuous Comprehensive Assessment (CCA) Pattern

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### 301. MACRO ECONOMICS

**Objective:** This course deals with the principles of Macroeconomics. The coverage includes determination of and linkages between major economic variables ; level of output and prices, inflation, interest rates and exchange rates. The course is designed to study the impact of monetary and fiscal policy on the aggregate behavior of individuals.

#### Course Content

**Unit I:** Measurement of macroeconomic variables: National Income Accounts, Gross Domestic Product, National Income, Personal and Personal disposable income; Classical theory of income and employment: Quantity Theory of Money

**Unit II:** Keynesian theory of Income and employment : Simple Keynesian Model, Components of aggregate demand, equilibrium income, changes in equilibrium, multiplier, ISLM model : properties of ISLM curves, factors affecting the position and slope of ISLM curves, determination of equilibrium income and interest rates, effect of monetary and fiscal policy, relative effectiveness of monetary and fiscal policy.

**Unit III:** Money: Functions of money, quantity theory of money, determination of money supply and demand, H theory of money multiplier, indicators and instruments of monetary control; Inflation: meaning, demand and supply side factors, consequences of inflation, anti-inflationary policies, natural rate theory, monetary policy-output and inflation.

**Unit IV:** Open Economy: brief introduction to BoP account, market for foreign exchange and exchange rate, monetary and fiscal policy in open economy, Mundell Fleming model (perfect capital mobility and imperfect capital mobility under fixed and flexible exchange rate)

**Readings:**

1. Froyen, R.P. (2011): Macroeconomics-theories and policies (8<sup>th</sup> ed.) . Pearson:
2. Dornbusch and Fischer (2010). Macroeconomics (9<sup>th</sup>ed.). Tata McGraw Hill
3. N Gregory Mankiw (2010). Macroeconomics (7<sup>th</sup>ed.). Worth Publishers
4. Olivier Blanchard, Macroeconomics (2009). (5<sup>th</sup>ed.) Pearson

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration**

### **BBA- 2<sup>nd</sup> Year (3<sup>rd</sup> Semester)**

**Course: Principles of Marketing**

<b>Course Code: 302</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

**Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

**Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **302. PRINCIPLES OF MARKETING**

**Objective:** This course aims to familiarize students with the marketing function in organizations. It will equip the students with understanding of the Marketing Mix elements and sensitize them to certain emerging issues in Marketing. The course will use and focus on Indian experiences, approaches and cases

**Course Content:**

**Unit I:**

Introduction: Nature, Scope and Importance of Marketing, Evolution of Marketing; Core marketing concepts; Company orientation - Production concept, Product concept, Selling concept, Marketing concept, Holistic marketing concept. Marketing

Environment: Demographic, economic, political, legal, socio cultural, technological environment (Indian context); Portfolio approach– Boston Consultative Group (BCG) matrix

#### **Unit II:**

Segmentation, Targeting and Positioning: Levels of Market Segmentation, Basis for Segmenting Consumer Markets, Difference between Segmentation, Targeting and Positioning;

#### **Unit III:**

Product & Pricing Decisions: Concept of Product Life Cycle (PLC), PLC marketing strategies, Product Classification, Product Line Decision, Product Mix Decision, Branding Decisions, Packaging & Labelling, New Product Development. Pricing Decisions: Determinants of Price, Pricing Methods (Non-mathematical treatment), Adapting Price (Geographical Pricing, Promotional Pricing and Differential Pricing).

#### **Unit IV:**

Promotion Mix: Factors determining promotion mix, Promotional Tools – basics of Advertisement, Sales Promotion, Public Relations & Publicity and Personal Selling; Place (Marketing Channels): Channel functions, Channel Levels, Types of Intermediaries: Types of Retailers, Types of Wholesalers. Marketing of Services - Unique Characteristics of Services, Marketing strategies for service firms – 7Ps.

#### **Readings:**

1. Kotler, P. & Keller, K. L.: Marketing Management, Pearson.
2. Kotler, P., Armstrong, G., Agnihotri, P. Y., & Ul Haq, E.: Principles of Marketing: A South Asian Perspective, Pearson.
3. Ramaswamy, V.S. & Namakumari, S.: Marketing Management: Global Perspective- Indian Context, Macmillan Publishers India Limited.
4. Zikmund, W.G. & D' Amico, M.: Marketing, Ohio: South-Western College Publishing.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 2<sup>nd</sup> Year (3<sup>rd</sup> Semester)**

**Course: MANAGEMENT ACCOUNTING**

<b>Course Code: 303</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
-------------------------------	---------------------------	---------------------

<b>70</b>	<b>32</b>	<b>3:00hrs</b>
-----------	-----------	----------------

### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

## **303. MANAGEMENT ACCOUNTING**

**Objective:** To acquaint students with role of Management Accounting in planning, control and decision-making.

### **Course Content**

#### **Unit I**

Nature, Scope of Management Accounting: Meaning, definition, nature and scope of Management Accounting; Comparison of Management Accounting with Cost Accounting and Financial Accounting. Cost concepts: Meaning, Scope, Objectives, and Importance of Cost Accounting; Cost, Costing, Cost Control, and Cost Reduction; Elements of Cost, Components of total Cost, Cost Sheet. Classification of Costs: Fixed, Variable, Semi-variable, and Step Costs; Product, and Period Costs; Direct, and Indirect Costs; Relevant, and Irrelevant Costs; Shut-down, and Sunk Costs; Controllable, and Uncontrollable Costs; Avoidable, and Unavoidable Costs; Imputed / Hypothetical Costs; Out-of-pocket Costs; Opportunity Costs; Expired, and Unexpired Costs; Conversion Cost.

#### **Unit II**

Cost-Volume-Profit Analysis: Contribution, Profit -Volume Ratio, Margin of safety, Cost Break-even Point, Composite Break-even Point, Cash Break-even Point, Key Factor, Break-even Analysis. Relevant Costs and Decision Making: Pricing, Product Profitability, Make or Buy, Exploring new markets, Export Order, Sell or Process Further, Shut down vs. Continue.

#### **Unit III**

Budgets and Budgetary Control: Meaning, Types of Budgets, Steps in Budgetary Control, Fixed and Flexible Budgeting, Cash Budget. Responsibility Accounting: Concept, Significance, Different responsibility centers.

#### **Unit IV**

Standard Costing and Variance Analysis: Meaning of Standard Cost and Standard Costing, Advantages, Limitations and Applications; Material, Labor, Overhead and Sales variances.

### **Readings:**

1. C.T. Horngren, Gary L. Sundem, Jeff O. Schatzberg, and Dave Burtstahler: Introduction to Management Accounting, Pearson
2. M.N. Arora: A Textbook of Cost and Management Accounting, Vikas Publishing House Pvt. Ltd.
3. M.Y. Khan, and P.K. Jain, Management Accounting: Text Problems and Cases, McGraw Hill Education (India) Pvt. Ltd.
4. S.N. Maheshwari, and S.N. Mittal, Cost Accounting: Theory and Problems, Shree Mahavir Book Depot (Publishers)

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration**

### **BBA- 2<sup>nd</sup> Year (3<sup>rd</sup> Semester)**

**Course: INDIA'S DIVERSITY AND BUSINESS**

<b>Course Code: 304</b>		
<b>Credits:06</b>	<b>Lectures: 04</b>	<b>Tutorials: 02</b>
<b>Course type</b>	<b>Generic Elective-III</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=60, T=20)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Tutorials/ Assignments (Marks)</b>	<b>Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **304. INDIA'S DIVERSITY AND BUSINESS (Generic Elective-III)**

#### **Objective :**

The objective of the paper is to understand the bases of India's diversity and its linkages with the people, livelihood, occupational diversity and socio-economic challenges. Further, it aims at understanding the diversity and its implications for the business.

#### **Unit I**

Recognizing, Accommodating and valuing diversity

Challenges and dilemmas posed by diversity and drive for homogenization; Sources of dilemma and tension—immigration, competition for limited resources;

Regional bases of India's diversity: regional approach to understanding diversity in terms of India's topography, drainage, soil, climate, natural vegetation, rural and urban settlements. Social diversity in India: Peopling , demography, languages, castes, ethnicity, religions, sects, family, kinship and social institutions; socio-cultural regions

#### **Unit 2**

People, Livelihood and Occupational Diversity

Traditional livelihoods and their nature - agriculture, crafts, industry and services;



Region, occupation and employment

### Unit 3

Linkages between Diversity and India's Socio-economic challenges

Regional variations in terms of geographic and socio-economic factors- trends and emerging options;

Food insecurity, economic inequalities and poverty, environmental degradation and sustainable development;

### Unit 4

Diversity and Business

Indian Consumers and marketing; Rural and Urban context

Diversity, manufacturing, industry and services;

Diversity and Innovation;

Workforce diversity and management

### References:

- Bhatt, B. L(1980)-“ India and Indian Regions: A Critical Overview” in David E. Sopher ‘*An Exploration of India- Geographical Perspectives on Society and Culture*’. Cornell. Pages- 35-61 for Socio cultural regions.
- Bill Aitken, Seven sacred rivers, Penguin Books, 1992
- Bose NK (1969) Unity in Indian Diversity in Desai AR (1969 ) *Rural Sociology in India*, reprinted 2009, Popular Prakashan, (for diversity as strength Part II chap 3 pp 134-136)
- Chakravarti AK (2004) *Regional Preferences for Food: Some Aspects of Food Habit Patterns In India* in Grover N and KN Singh (eds) 2004, *Cultural Geography: Form and Process* , Concept Publishers, Delhi ( for regional specificity of food -Chap 23 pp 355 to 375)
- Fernando Mart ín-Alcá zar• Pedro M. Romero-Ferna ́ ndez• Gonzalo Sa ́ nchez-Gardey, Transforming Human Resource Management Systems to Cope with Diversity, **Journal of Business Ethics**, 2012, 107:511-531
- Gadgil and Guha Ecology and Equity: The use and abuse of nature in contemporary India. Penguin 1995
- Gail Robinson and Kathleen Dechant, Building a business case for diversity, Academy of Management Executive 1997, Vol 11, No. 3

**Note: Latest Edition of the Text Books should be followed**

## Bachelor in Business Administration

### BBA- 2<sup>nd</sup> Year (3<sup>rd</sup> Semester)

**Course: Personality Development & Communication Skills**

<b>Course Code: 305</b>		
<b>Credits:06</b>	<b>Lectures: 04</b>	<b>Practicals: 02</b>
<b>Course type</b>	<b>Skill Enhancement Course-I</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=60, P=20)</b>	

**Semester End Examination System**

<b>Theory</b>		
<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>50</b>	<b>23</b>	<b>3:00hrs</b>
<b>Practical</b>		
<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>20</b>	<b>9</b>	<b>1:00hr</b>

**Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Tutorials/ Assignments (Marks)</b>	<b>Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **305. Personality Development & Communication Skills (Skill Enhancement Course-I)**

**Objective:** The objective of the course is bring about personality development with regard to the different behavioural dimensions that have far reaching significance in the direction of organisational effectiveness.

**Course Content:****Unit I**

Techniques in Personality development a) Self confidence b) Mnemonics c) Goal setting d) Time Management and effective planning

**Unit II**

Written communication,: Basics of Letter writing, memorandum, notice, email, and report writing. Resume writing.

**Unit III**

Communication skills and Personality Development a) Intra personal communication and Body Language b) Inter personal Communication and Relationships c) Leadership Skills d) Team Building and public speaking

**UNIT-IV**

Corporate Grooming, Dressing Etiquette, Preparing for Interview, Emotional Quotient.

**Note: Latest Edition of the Text Books should be followed**

## Bachelor in Business Administration

### BBA- 2<sup>nd</sup> Year (4<sup>th</sup> Semester)

#### Course: Business Research

<b>Course Code: 401</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### Semester End Examination System

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### Continuous Comprehensive Assessment (CCA) Pattern

<b>Minor Test (Marks)</b>	<b>Class Test/ Tutorials/ Assignments (Marks)</b>	<b>Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### 401. BUSINESS RESEARCH

**Objective:** To provide an exposure to the students pertaining to the nature and extent of research orientation, which they are expected to possess when they enter the industry as practitioners. To give them an understanding of the basic techniques and tools of business marketing research.

#### Course Content:

**Unit I:** Nature and Scope of Marketing Research – Role of Marketing Research in decision making. Applications of Marketing Research; The Research process – Steps in the research process; the research proposal; Problem Formulation: Management decision problem Vs. Marketing Research problem.

**Unit II:** Research Design: Exploratory, Descriptive, Causal. Secondary Data Research: Advantages & Disadvantages of Secondary Data, Criteria for evaluating secondary sources, secondary sources of data in Indian Context.

**Unit III:** Primary Data Collection: Survey Vs. Observations. Comparison of self-administered, telephone, mail, emails techniques. Qualitative Research Tools: Depth Interviews focus groups and projective techniques; Measurement & Scaling: Primary scales of Measurement -Nominal, Ordinal, Interval & Ratio. Scaling techniques-paired comparison, rank order, constant sum, semantic differential, itemized ratings, Likert Scale; Questionnaire-form & design..

**Unit IV:** Sampling: Sampling techniques, determination of sample size; Data Analysis: Z test (mean, diff. of mean, diff. of proportion) t test (mean), paired t test, Chi square test, Report writing.

**Readings:**

1. Zikmund, Babin & Carr: Business Research Methods, South-Western.
2. Cooper & Schindler: Business Research Methods McGraw-Hill Education,
3. Churchill: Marketing Research: Methodological Foundations, Cengage Learning.
4. Aaker, Kumar, Day - Marketing Research. Wiley.
5. Naresh Malhotra – Marketing Research, Pearson.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration**

### **BBA- 2<sup>nd</sup> Year (4<sup>th</sup> Semester)**

#### **Course: Human Resource Management**

<b>Course Code: 402</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Tutorials/ Assignments (Marks)</b>	<b>Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **402. HUMAN RESOURCE MANAGEMENT**

**Objective:** The objective of this course is to help the students to develop an understanding of the concept & techniques of essential functions of human resource management. The course will use and focus on Indian experiences, approaches and cases

#### **Course Contents**

##### **Unit I**

Human Resource Management: Concept, Functions, roles, skills & competencies. The changing environment of HRM – globalization, cultural environment, technological advances, workforce diversity, corporate downsizing, changing skill requirement, HR role in strategy formulation & gaining competitive advantage.

## **Unit II**

Human Resource Planning: Process, Forecasting demand & supply, Skill inventories, Job analysis – Uses, methods, Job description & Job specifications. Recruitment, Selection & Orientation: internal & external sources, e- recruitment, selection process, orientation process.

## **Unit III**

Training: Concept, Needs, Systematic approach to training, Methods of training. Performance management system: concept, uses of performance appraisal, factors that distort appraisal.

Compensation: Steps of determining compensation, job evaluation, components of pay structure, factors influencing compensation levels, wage differentials & incentives, profit sharing, gain sharing, employees' stock option plans. Brief introduction of social security; health, retirement & other benefits.

## **Unit IV**

Industrial Relations: Introduction to Industrial Relations, Trade unions role, types, functions, problems, industrial dispute- concept, causes & machinery for settlement of disputes- grievance, concepts, causes & grievance redressal machinery, discipline-concept, aspect of discipline & disciplinary procedure, Collective bargaining- concept, types, process, problems, essentials of effective collective bargaining .

### **Readings:**

1. De Cenzo, D.A. & Robbins: Fundamentals of Human Resource Management, New York: John Wiley & Sons.
2. Dessler, G: Human Resource Management, Pearson.
3. Monappa & Saiyaddin: Personnel Management, Tata McGraw Hill.
4. Rao, V.S.P.: Human Resource Management- Text and Cases, Excel Books.
5. R. Wayne Mondy & Rober M. Noe: Human Resource Management, Pearson.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 2<sup>nd</sup> Year (4<sup>th</sup> Semester)**

### **Course: Financial Management**

<b>Course Code: 403</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

### **Semester End Examination System**

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3:00hrs

### Continuous Comprehensive Assessment (CCA) Pattern

Minor Test (Marks)	Class Test/ Assignments (Marks)	Tutorials/ Attendance (Marks)	Total Marks
15	10	05	30

## PAPER NO: 403 – FINANCIAL MANAGEMENT

**Objective:** To acquaint students with the techniques of financial management and their applications for business decision making.

### Course Contents:

#### Unit I

Nature of Financial Management: Finance and related disciplines; Scope of Financial Management; Profit Maximization, Wealth Maximization - Traditional and Modern Approach; Functions of finance – Finance Decision, Investment Decision, Dividend Decision; Objectives of Financial Management; Organisation of finance function; Concept of Time Value of Money, present value, future value, and annuity; Risk & Return: Risk - Systematic & unsystematic risk – their sources and measures.

#### Unit II

Long -term investment decisions: Capital Budgeting - Principles and Techniques; Nature and meaning of capital budgeting; Estimation of relevant cash flows and terminal value; Evaluation techniques - Accounting Rate of Return, Net Present Value, Internal Rate of Return, Profitability Index Method.

Concept and Measurement of Cost of Capital: Explicit and Implicit costs; Measurement of cost of capital; Cost of debt; Cost of perpetual debt; Cost of Equity Share; Cost of Preference Share; Cost of Retained Earning; Computation of over-all cost of capital based on Historical and Market weights.

#### Unit III

Capital Structure: Approaches to Capital Structure Theories - Net Income approach, Net Operating Income approach, Modigliani-Miller (MM) approach, Traditional approach, Capital Structure and Financial Distress, Trade-Off Theory.

Dividend Policy Decision - Dividend and Capital; The irrelevance of dividends: General, MM hypothesis; Relevance of dividends: Walter's model, Gordon's model;

Leverage Analysis: Operating and Financial Leverage; EBIT -EPS analysis; Combined leverage.

#### **Unit IV**

Working Capital Management: Management of Cash - Preparation of Cash Budgets (Receipts and Payment Method only); Cash management technique, Receivables Management – Objectives; Credit Policy, Cash Discount, Debtors Outstanding and Ageing Analysis; Inventory Management (Very Briefly) - ABC Analysis; Minimum Level; Maximum Level; Reorder Level; Safety Stock; EOQ, Determination of Working Capital.

#### **Readings**

1. M.Y. Khan & P.K. Jain: Financial Management Text Problem and Cases, Tata McGraw Hill Publishing Co. Ltd.
2. R. P. Rustogi: Financial Management: Theory Concepts and Practices, Taxmann Publication.
3. I.M. Pandey: Financial Management: Theory and Practices, Vikas Publishing House
4. R.A. Brealey, S.C. Myers, F. Allen & P. Mohanty: Principles of Corporate Finance, McGraw Hill Higher Education
5. J.V. Horne & J.M. Wachowicz: Fundamentals of Financial Management Prentice Hall

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** ***BBA- 2<sup>nd</sup> Year (4<sup>th</sup> Semester)***

### **Course: Tax Planning**

<b>Course Code: 404</b>		
<b>Credits:06</b>	<b>Lectures: 04</b>	<b>Tutorials: 02</b>
<b>Course type</b>	<b>Generic Elective-IV</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=60, T=20)</b>	

### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Tutorials/ Assignments (Marks)</b>	<b>Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

## **404. TAX PLANNING (Generic Elective-IV)**

**Objective:** The objective of this course is to acquaint the students with the tax structure for individuals and corporate and also its implications for planning.

### **Course Contents:**

#### **Unit I (Only Theory)**

Income tax concepts: Previous Year, Assessment Year, Person, Assessee, Income (including agricultural income), Residential Status and their incidence of tax, Gross Total Income, Total Income; Income which do not form part of total income, Tax Evasion, Tax Avoidance.

#### **Unit II (Theory and Practical)**

Tax Planning under the head Salary

#### **Unit III (Only Theory)**

Computation of Income under the Head: House Property and Profits and gains from Business or Profession. Computation of Income under the Head: Capital gains and Income from other sources.

#### **Unit IV (Only Theory)**

Clubbing of Income, Set-off and carry-forward of losses , Deductions from gross total income as applicable to an individual and Business Units; Computation of total income and tax liability of an individual and Business Units.

#### **Text Books:**

1. Singhania, V.K. Student Guide to Income Tax. Taxmann Publications Pvt. Ltd. (Latest ed.)
2. Ahuja& Gupta. Simplified Approach to Corporate Tax. Flair Publications Pvt. Ltd (Latest ed.)

#### **References:**

1. Ahuja& Gupta. Simplified Approach to Income Tax Flair, Publications Pvt. Ltd.
2. Mahesh Chandra & Shukla, D.C. Income Tax Law & Practice Pragati Publications.
3. Goyal, S.P. Tax Planning and Management. SahityaBhawan Publications.
4. Singhania, V.K .Student Guide to Income Tax. (University ed.). Taxmann Publications Pvt. Ltd.

#### **Online Readings/Supporting Material:**

1. Finance Act for the relevant assessment year.
2. CBDT Circulations.
10. 3. Latest Court Judgements for the relevant Assessment year.

**Note: Latest Edition of the Text Books should be followed**



## Bachelor in Business Administration

### BBA- 2<sup>nd</sup> Year (4<sup>th</sup> Semester)

**Course: IT Tools in Business**

<b>Course Code: 405</b>		
<b>Credits:06</b>	<b>Lectures: 04</b>	<b>Practicals: 02</b>
<b>Course type</b>	<b>Skill Enhancement Course-II</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=60, P=20)</b>	

#### **Semester End Examination System**

<b>Theory</b>		
<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>50</b>	<b>23</b>	<b>3:00hrs</b>
<b>Practical</b>		
<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>20</b>	<b>9</b>	<b>1:00hr</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Tutorials/ Assignments (Marks)</b>	<b>Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **405. IT TOOLS IN BUSINESS** **(Skill Enhancement Course-II)**

**Objective:** The objective of this course is to acquaint the students with Information Technology tools which includes various Office Automation Tools for individuals and corporate.

#### **Course Contents**

#### **UNIT-I**

##### **Spreadsheets**

Introduction: Concept of worksheets and workbooks, creating, opening, closing and saving workbooks, moving, copying, inserting, deleting and renaming worksheets, working with multiple worksheets and multiple workbooks, controlling worksheet views, naming cells using name box, name create and name define. Using formulae and functions: Understanding absolute, relative and mixed referencing in formulas, referencing cells in other worksheets and workbooks, correcting common formula errors, working with inbuilt function categories like mathematical, statistical, text, lookup, information, logical, database, date and time and basic financial functions. Consolidating worksheets and workbooks using formulae and data

consolidate command Printing and Protecting worksheets: Adjusting margins, creating headers and footers, setting page breaks, changing orientation, creating portable documents and printing data and formulae. Implementing file level security and protecting data within the worksheet Creating charts and graphics: Choosing a chart type, understanding data points and data series, editing and formatting chart elements, and creating sparkline graphics. Analysing data using pivot tables: Creating, formatting and modifying a pivot table, sorting, filtering and grouping items, creating calculated field and calculated item, creating pivot table charts, producing a report with pivot tables. Performing what-if analysis: Types of what if analysis (manual, data tables, scenario manager), what-if analysis in reverse (goal-seek, solver)Exchanging data using clipboard, object linking and embedding.

## **UNIT-II**

### **Word-processing**

Introduction: Creating and saving your document, displaying different views, working with styles and character formatting, working with paragraph formatting techniques using indents, tabs, alignment, spacing, bullets and numbering and creating borders.

Page setup and sections: Setting page margins, orientation, headers and footers, end notes and foot notes, creating section breaks and page borders. Working with tables: Creating tables, modifying table layout and design, sorting, inserting graphics in a table, table math, converting text to table and vice versa. Create newspaper columns, indexes and table of contents. Spellcheck your document using inbuilt and custom dictionaries, checking grammar and style ,using thesaurus and finding and replacing text. Create bookmarks, captions and cross referencing, adding hyperlinks, adding sources and compiling and bibliography. Mail merge: Creating and editing your main document and data source, sorting and filtering merged documents and using merge instructions like ask, fill-in and if-then-else. Linking and embedding to keep things together.

## **UNIT-III**

### **PowerPoint presentation**

Introduction: Creating a blank presentation using a design template, basing a new presentation on an existing one, creating and managing slides, using content place holders, creating graphs, tables, diagrams, organization charts, inserting clip art and images. Viewing and navigating a presentation: Organising ideas in outline view, using slide sorter to rearrange a presentation, previewing presentation in slide show, understanding master views, using title master, slide master, handout master and notes master, working with headers and footers, using hyperlinks, advanced navigation with action settings, navigation short hand with action buttons. Animation and multimedia: Using and applying animation schemes, custom animation, understanding sound file formats and video types, adding music, sound and video clips. Final presentation: Applying transition to slides, controlling transition speed, using hidden slides, using custom shows, using on screen pen and adding and accessing notes during a presentation.

## **UNIT-IV**

### **Databases**

Introduction to Database Development: Database Terminology, Objects, Creating Tables, working with fields, understanding Data types , Changing table design, Assigning Field Properties, Setting Primary Keys, using field validation and record validation rules, Indexing, working with multiple tables, Relationships & Integrity Rules, Join Properties, Record

manipulation, Sorting & Filtering.

Select data with queries: Creating Query by design & by wizard (Select, Make Table, Append, Delete, Cross Tab, Update, Parameterized Query, Find Duplicate and Find Unmatched), Creating multi table queries, creating & working with table joins. Using operators & expressions: Creating simple & advance criteria.

Working with forms: Creating Basic forms, working with bound, unbound and calculated controls, understanding property sheet, Working with Data on Forms: Changing Layout, creating Sub Forms, creating list box, combo box and option groups.

Working with Reports: Creating Basic Reports, Creating Header & Footer, Placing Controls on reports, sorting & grouping, Creating Sub reports.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)**

### **Course: Quantitative Techniques for Management**

<b>Course Code: 501</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

## **501. QUANTITATIVE TECHNIQUES FOR MANAGEMENT**

**Objective:** To acquaint students with the construction of mathematical models for managerial decision situations and to use computer software packages to obtain a solution wherever applicable. The emphasis is on understanding the concepts, formulation and interpretation.

**Course contents:**

**Unit I:** Linear Programming: Formulation of L.P. Problems, Graphical Solutions (Special cases: Multiple optimal solution, infeasibility, unbounded solution); Simplex Methods (Special cases: Multiple optimal solution, infeasibility, degeneracy, unbounded solution) Big-M method and Two-phase method; Duality and Sensitivity (emphasis on formulation & economic interpretation); Formulation of Integer programming, Zero-one programming, Goal Programming.

**Unit II:** Elementary Transportation: Formulation of Transport Problem, Solution by N.W. Corner Rule, Least Cost method, Vogel's Approximation Method (VAM), Modified Distribution Method. (Special cases: Multiple Solutions, Maximization case, Unbalanced case, prohibited routes)

Elementary Assignment: Hungarian Method, (Special cases: Multiple Solutions, Maximization case, Unbalanced case, Restrictions on assignment.)

**Unit III:** Network Analysis: Construction of the Network diagram, Critical Path - float and slack analysis (Total float, free float, independent float), PERT, Project Time Crashing

#### **Unit IV:**

Introduction to Game Theory: Pay off Matrix- Two person Zero- Sum game, Pure strategy, Saddle point; Dominance Rule, Mixed strategy, Reduction of  $m \times n$  game and solution of  $2 \times 2$ ,  $2 \times s$ , and  $r \times 2$  cases by Graphical and Algebraic methods; Introduction to Simulation: Monte Carlo Simulation.

#### **Readings:**

1. N. D. Vohra: Quantitative Management, Tata McGraw Hill .
2. P. K. Gupta, Man Mohan, KantiSwarup: Operations Research, Sultan Chand.
3. V. K. Kapoor: Operations Research, Sultan Chand & Sons.
4. J. K. Sharma: Operations Research Theory & Applications, Macmillan India Limited.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)**

### **Course: Legal Aspects of Business**

<b>Course Code: 502</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

### Continuous Comprehensive Assessment (CCA) Pattern

Minor Test (Marks)	Class Test/ Assignments (Marks)	Tutorials/ Attendance (Marks)	Total Marks
15	10	05	30

## 502. LEGAL ASPECTS OF BUSINESS

**Objective:** To gain knowledge of the branches of law which relate to business transactions, certain corporate bodies and related matters. Also, to understand the applications of these laws to practical commercial situations.

### Course contents:

#### Unit I:

The Indian Contract Act 1872: Meaning and Essentials of contract; Kinds of contract-Based on: validity, formation & performance, law relating to offer and acceptance, consideration, competency to contract, free consent, Void agreements, performance of contracts, discharge of contracts, breach of contracts and quasi contract, Special contracts: contract of indemnity and guarantee, bailment and pledge, and agency.

#### Unit II:

Sale of Goods Act 1930: Sale and agreement to sell, implied conditions and warranties, sale by non-owners, rights of unpaid seller.

Negotiable Instruments Act 1881: Meaning of negotiable instruments, type of negotiable instruments, promissory note, bill of exchange, cheque.

#### Unit III:

The Companies Act 2013:

Meaning and types, Incorporation, Memorandum & Articles of association, Prospectus, Issue of shares and bonus shares, rights issue, sweat equity, role of directors, share qualification, company meetings.

#### Unit IV:

Consumer Protection Act 1986:

Objectives and machinery for consumer protection, defects and deficiency removal, rights of consumers.

The Right to Information Act 2005:

Salient features and coverage of the act, definition of terms information, right, record, public authority; obligations of public authorities, requesting information and functions of PIO.

### Readings:

1. M.C.Kucchal: Business Law/Mercantile Law, Vikas Publishing.House (P) Ltd.
2. M.C.Kucchal,& Vivek Kucchal: Business Legislation for Management, Vikas Publishing

House (P) Ltd.

3. Dr. G. K. Kapoor & Sanjay Dhamija: Company Law and Practice-A comprehensive textbook on Companies Act 2013, latest edition, Taxmann.
4. Avtar Singh: Principle of Mercantile Law, Eastern Book Company
5. Gulshan Kapoor: Business Law, New Age International Pvt Ltd Publishers.
6. Maheshwari & Maheshwari: Principle of Mercantile Law, National Publishing Trust
7. Rohini Aggarwal: Mercantile & Commercial Law, Taxmann.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration**

### **BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)**

#### **Course: Investment Banking and Financial Services**

<b>Course Code: 503</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-I Finance)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **503. (DSE-I Finance)**

#### **INVESTMENT BANKING AND FINANCIAL SERVICES**

**Objective:** The objective of this paper is to know the different aspects of Investment banking, mergers and acquisition and the detailed SEBI guidelines on issue management.

#### **UNIT- I**

Introduction: An Overview of Indian Financial System, Investment Banking in India, Recent Developments and Challenges ahead, Institutional structure and Functions of

Investment / Merchant Banking; SEBI guidelines for Merchant Bankers.

## UNIT II

Issue Management: Public Issue: classification of companies, eligibility, issue pricing, promoter's contribution, minimum public offer, prospectus, allotment, preferential allotment, private placement, Book Building process, designing and pricing, Right Issue: promoter's contribution, minimum subscription, advertisements, contents of offer document, Bought out Deals, Post issue work & obligations, Investor protection, Broker, sub broker and underwriters

## UNIT III

Leasing and Hire Purchase :Concepts of leasing, types of leasing – financial & operating lease, direct lease and sales & lease back, advantages and limitations of leasing, Lease rental determination; Finance lease evaluation problems (only Lessee's angle), Hire Purchase interest & Installment, difference between Hire Purchase & Leasing, Choice criteria between Leasing and Hire Purchase, Factoring, forfaiting and its arrangement.

## UNIT IV

Venture Capital: Concept, history and evolution of VC, the venture investment process, various steps in venture financing.

Credit Ratings: Introduction, types of credit rating, advantages and disadvantages of credit ratings, Credit rating agencies and their methodology.

Securitization: concept, securitization as a funding mechanism.

## REFERENCES

1. M.Y.Khan: Financial Services, Tata McGraw –Hill.
2. Machiraju: Indian Financial System, Vikas Publishing House.
3. J.C.Verma: A Manual of Merchant Banking, Bharath Publishing House.
4. K.Sriram: Hand Book of Leasing, Hire Purchase & Factoring, ICFAI, Hyderabad.
5. Ennew.C.Trevor Watkins & Mike Wright: Marketing of Financial Services, Heinemann Professional

**Note: Latest Edition of the Text Books should be followed**

## Bachelor in Business Administration

### BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)

#### Course: Consumer Behavior

<b>Course Code: 503</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-II Marketing)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### Semester End Examination System

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3:00hrs

#### Continuous Comprehensive Assessment (CCA) Pattern

Minor Test (Marks)	Class Test/ Assignments (Marks)	Tutorials/ Attendance (Marks)	Total Marks
15	10	05	30

### 503. (DSE-II Marketing) CONSUMER BEHAVIOR

**Objective:** The course of Consumer behaviour equips students with the basic knowledge about the issues and dimensions of consumer behaviour and with the skill and ability to analyse consumer information and develop consumer behaviour oriented marketing strategies.

#### Course contents:

##### Unit I

Consumer Behaviour: Nature, scope & application: Importance of consumer behaviour in marketing decisions, characteristics of consumer behaviour, role of consumer research, consumer behaviour- interdisciplinary approach.

##### Unit II

Consumer Needs & Motivation: Characteristics of motivation, arousal of motives, self-concept & its importance, types of involvement.

Trait theory: Theory of self-images; Role of self-consciousness.

Consumer Perception: Concept of absolute threshold limit, differential threshold limit & subliminal perception: Perceptual Process: selection, organisation & interpretation. Learning & Consumer Involvement: Importance of learning on consumer behaviour,

Consumer Attitudes: Formation of attitudes, functions performed by attitudes.

##### Unit III

Group Dynamics & consumer reference groups: Different types of reference groups, factors affecting reference group influence, reference group influence on products & brands, application of reference groups.

Family & Consumer Behaviour: Consumer socialisation process, consumer roles within a family, purchase influences and role played by children, family life cycle.

Social Class & Consumer behaviour: Determinants of social class, measuring & characteristics of social class.

##### Unit IV

Diffusion of Innovation: Definition of innovation, product characteristics influencing



diffusion, resistance to innovation, adoption process.

Consumer Decision making process: Process- problem recognition, pre-purchase search influences, information evaluation, purchase decision (compensatory decision rule, conjunctive decision, rule, Lexicographic rule, affect referral, disjunctive rule), post-purchase evaluation; Situational Influences

NOTE: Cases & application to marketing will be taught with respect to each topic.

### Readings

1. Leon G.Schiffman & Leslie L.Kanuk: Consumer Behaviour, Prentice Hall Publication, latest Edition
2. Solomon, M.R.: Consumer Behaviour – Buying, Having, and Being, Pearson Prentice Hall.
3. Blackwell, R.D., Miniard, P.W., & Engel, J. F.: Consumer Behaviour, Cengage Learning.
4. Hawkins, D.I., Best, R. J., Coney, K.A., & Mookerjee, A: Consumer Behaviour – Building Marketing Strategy, Tata McGraw Hill.
5. Kotler, P. & Keller, K. L.: Marketing Management (Global Edition) Pearson.

**Note: Latest Edition of the Text Books should be followed**

## Bachelor in Business Administration

### BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)

#### Course: HRD: Systems and Strategies

<b>Course Code: 503</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-III Human Resource)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### Semester End Examination System

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### Continuous Comprehensive Assessment (CCA) Pattern

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

## **503. (DSE-III Human Resource)**

### **HRD: SYSTEMS AND STRATEGIES**

**Objective** The course gives an overview of the need for HRD and HRD practices which can develop and improve an Organization's systems and strategies leading to an optimal HRD climate.

#### **Course Contents**

**UNIT - I:** Human Resource Development (HRD) : Concept, Origin and Need, Relationship between human resource management and human resource development; HRD as a Total System; Activity Areas of HRD : Training, Education and Development; Roles and competencies of HRD professionals.

**UNIT - II:** HRD Process: Assessing need for HRD; Designing and developing effective HRD programs; Implementing HRD programs; Evaluating HRD programs.

HRD Interventions: Integrated Human Resource Development Systems, Staffing for HRD; Physical and Financial Resources for HRD.

**UNIT – III:** HRD and diversity management; HRD Climate; HRD Audit.

HRD Applications: Coaching and mentoring, Career management and development; Employee counselling; Competency mapping, High Performance Work Systems, Balanced Score Card. Integrating HRD with technology.

**UNIT – IV:** Evaluating the HRD Effort; Data Gathering; Analysis and Feedback; Industrial relations and HRD. HRD Experience in Indian Organizations, International HRD experience, Future of HRD.

#### **Readings:**

1. Nadler, Leonard: Corporate human Resource Development, Van Nostrand Reinhold / ASTD, New York.
2. Rao T.V. and Pareek, Udai: Designing and Managing Human Resource Systems, Oxford and IBH Publication Ltd.
3. Rao T.V.: Reading in human Resource Development, Oxford IBH Publication .Ltd.
4. Viramani B.R. and Seth, Pramila: Evaluating Management Training and Development, Vision Books.
5. Rao T.V.: Human Resource Development, Sage publication.
6. Kapur, Sashi: Human resource Development and Training in Practice, Beacon Books.
7. Lynton, Rolf P. and Pareek, Udai: Training for Development, Vistaar publication.
8. Werner J. M., DeSimone, R.L.: Human resource development, South Western.
9. Mankin, D.: Human resource development, Oxford University Press India.
10. Halder, U. K.: Human resource development, Oxford University Press India.
11. Rao, T.V.: Future of HRD, Macmillan Publishers India.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 3<sup>rd</sup> Year (5<sup>h</sup> Semester)**

### **Course: International Trade: Policies and Strategies**

<b>Course Code: 503</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-IV Management of Global Business)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **503. (DSE-IV Management of Global Business)** **INTERNATIONAL TRADE: POLICIES AND STRATEGIES**

**Objective:** The paper aims to provide a thorough understanding of the basis for international trade and strategies. The role of the global institutional structure and trade strategies of developing countries and trade partners of India will be studied.

#### **Course Contents:**

**Unit I:** Review of Economic Theory on International Trade: Basis for international trade; gains from trade; distributional issues, policy instruments and their impact, political economy. Trends in Global Trade and Balance of Payments with special reference to India: Historical roots of today's international trade, Composition, origin and destination of global exports and imports.

**Unit II:** Balance of payments: current account and capital account, Capital flows and foreign exchange revenues, External Debt. The Global Institutional Structure: GATT (General Agreement on Trade and Tariffs), WTO (World Trade Organisation), Regional Trade Blocks and Trade Agreements.

**Unit III:** India's Industrialization Strategy and International Trade: Review of Economic planning strategies and issues: early phase; the 1970s and 1980, Policies since 1991, Exim policy, structure of tariffs and restrictions, currency depreciation and convertibility, Export Promotion Zones

**Unit IV:** Experience of Select Developing Countries: Analysis of the trade strategy and the policy framework in two select large countries and comparison with India, Impact of trade on growth, agriculture, inequality, poverty, and other developmental indicators.

**Text Books:**

1. Tendulkar and Srinivasan: Reintegrating India with the World Economy, Pearson.
2. Connor, David E. O' (2006). Encyclopedia of the Global Economy: A guide for students and researchers. New Delhi: Academic Foundation

**References:**

1. The Trade Game: Negotiation trends at WTO and concerns of developing countries, 2006. New Delhi : Academic Foundation
2. Krugman, Obstfeld and Melitz: International Economics. (8th ed.). Pearson Education
3. [www.wto.org](http://www.wto.org)
  - Kaul, Vijay Kumar, 'Innovation Revolution: Harnessing India's Diversity' Yojana, November 2014, also available at SSRN , <http://ssrn.com/abstract=2517855>
  - Kaul, Vijay Kumar, INDIA'S DIVERSITY AND GLOBALISATION: UNIFYING FORCES AND INNOVATION, Working paper in Social Sciences Research Network(SSRN) ,June 2014 <http://ssrn.com/abstract=2444668>
  - Kaul, Vijay Kumar, INDIA'S DIVERSITY: FROM CONFLICT TO INNOVATION, Working paper in Social Sciences Research Network(SSRN) ,June 2014 <http://ssrn.com/abstract=2444099>
  - Kaul, Vijay Kumar, Managing Diversity, in **Business Organisation and Management**, chapter 35, Pearson Education, 2012.
  - Nehru J (1946) The Discovery of India, OUP, chaps 4-8
  - Sopher, D.E-"The Geographical Patterning of Culture of India" in David E. Sopher 'An Exploration of India- Geographical Perspectives on Society and Culture'. Cornell, Pages- 289-326.
  - Thomas Kochan, KaterinaBezrukova, Robin Ely, et el, The EFFECTS OF DIVERSITY ON BUSINESS PERFORMANCE: REPORT OF THE DIVERSITY RESEARCH NETWORK, Human Resource Management, Spring 2003, Vol 42, No.1. pp3-21

**Note: Latest Edition of the Text Books should be followed**

**Bachelor in Business Administration**  
**BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)**

**Course: Investment Analysis and Portfolio Management**

<b>Course Code: 504</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>

<b>Course type</b>	<b>Discipline Specific Elective (DSE-I Finance)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **504. (DSE-I Finance)**

#### **INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT**

**Objective:** The aim of this course is to provide a conceptual framework for analysis from an investor's perspective of maximizing return on investment – a sound theoretical base with examples and references related to the Indian financial system.

#### **Course Contents:**

##### **Unit I**

Basics of risk and return: concept of returns, application of standard deviation, coefficient of variation, beta, alpha. Bonds : present value of a bond, yield to maturity, yield to call, yield to put, systematic risk, price risk, interest rate risk, default risk. Share valuation: Dividend discount models- no growth, constant growth, two stage growth model, multiple stages; Relative valuation models using P/E ratio, book value to market value.

##### **Unit II**

Fundamental analysis: EIC framework; Economic analysis: Leading lagging & coincident macro-economic indicators, Expected direction of movement of stock prices with macroeconomic variables in the Indian context; Industry analysis: stages of life cycle, Porter's five forces model, SWOT analysis, financial analysis of an industry; Company analysis.

##### **Unit III**

Technical analysis: meaning, assumptions, difference between technical and fundamental analysis; Price indicators- Dow theory, advances and declines, new highs and lows- circuit filters. Volume indicators- Dow Theory, small investor volumes. Efficient market hypothesis; Concept of efficiency: Random walk, Three forms of EMH and implications for investment decisions. (No numericals in EMH and technical analysis)

##### **Unit IV**

Portfolio analysis: portfolio risk and return, Markowitz portfolio model: risk and return for 2 and 3 asset portfolios, concept of efficient frontier & optimum portfolio. Market Model: concept of beta systematic and unsystematic risk. Investor risk and return preferences: Indifference curves and the efficient frontier, Portfolio management services: Passive – Index funds, systematic investment plans. Active – market timing, style investing.

### **References:**

1. Fischer, D.E. & Jordan, R.J.: Security Analysis & Portfolio Management, Pearson Education.
2. Sharpe, W.F., Alexander, G.J. & Bailey, J.: Investments, Prentice Hall of India.
3. Singh, R.: Security Analysis & Portfolio Management . Excel Books.
4. Frank K Reilly & Keith C Brown: Investment Analysis and Portfolio Management, Cenage India Pvt. Ltd.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)**

### **Course: Retail Management**

<b>Course Code: 504</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-II Marketing)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

## **504. (DSE-II Marketing)** **RETAIL MANAGEMENT**

**Objective:** The primary objective of the course is to have students develop marketing competencies in retailing and retail consulting. The course is designed to prepare students for positions in the retail sector or positions in the retail divisions of consulting companies. Besides learning more about retailing and retail consulting, the course is designed to foster the development of the student's critical and creative thinking skills.

## Course Contents

### Unit I:

Introduction to Retailing: Definition, Characteristics, Emerging Trends in Retailing, Factors Behind the change of Indian Retail Industry. Retail Formats: Retail Sales by ownership, On the basis of Merchandise offered, non-store Based retail mix & Non traditional selling.

### Unit II:

Store Planning: Design & Layout, Location Planning and its importance, retailing image mix, Effective Retail Space Management, Floor Space Management.  
Retail Marketing: Advertising & Sales Promotion, Store Positioning, Retail Marketing. Mix, CRM, Advertising in Retailing.

### Unit III:

Retail Merchandising: Buying function, Markups & Markdown in merchandise management, shrinkage in Retail merchandise management.  
Merchandise Pricing: Concept of Merchandise Pricing, Pricing Options, Pricing Strategies, Pricing Objectives, Types of Pricing.

### Unit IV:

Retail Operation: Elements/Components of Retail Store Operation, Store Administration, Store Manager –Responsibilities, Inventory Management, Management of Receipts, Customer Service, Management of Retail Outlet/Store, Store Maintenance, Store Security.

### Readings

1. Cullen & Newman: Retailing – Environment & Operations, Cengage Learning EMEA
2. Berman & Evarv: Retail Management, Perntice Hall.
3. Bajaj, Tuli & Srivastava: Retail Management- Oxford University Publications
4. Gibson G Vedamani: Retail Management: Functional principles & practices, Jaico Publishing House.
5. Harjit Singh: Retail Management, S. Chand Publication.

**Note: Latest Edition of the Text Books should be followed**

## Bachelor in Business Administration

### BBA- 3<sup>rd</sup> Year (5<sup>th</sup> Semester)

#### Course: Training and Management Development

<b>Course Code: 504</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-III Human Resource)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

### Semester End Examination System

Maximum Marks Allotted	Minimum Pass Marks	Time Allowed
70	32	3:00hrs

### Continuous Comprehensive Assessment (CCA) Pattern

Minor Test (Marks)	Class Test/ Assignments (Marks)	Tutorials/ Attendance (Marks)	Total Marks
15	10	05	30

## 504. (DSE-III Human Resource) TRAINING & MANAGEMENT DEVELOPMENT

**Objective:** To familiarize the students with the concept and practice of training and development in the modern organizational setting.

### Course Contents

#### Unit I

Organization vision & plans, assessment of training needs, setting training objectives, designing training programmes, Spiral model of training. Tasks of the training function: Building support, overall training capacity, developing materials.

#### Unit II

Training methods: On the job training, job instruction training, apprenticeship, coaching, job rotation, syndicate method, knowledge based methods, lecture, conferences, programmed learning, simulation methods, case study, vestibule training, laboratory training, in-basket exercise, experiential methods, sensitivity training, e-training.

#### Unit III

Management Development Programme Methods:-Understudy, Coaching, Action Learning, Role Play, Management Games, Seminars, University related programmes, special projects, behavioural modelling, job rotation, case study, multiple management, sensitivity training. Post training: Training evaluation, Training impact on individuals and organizations, Evaluating Programmes, Participants, Objectives.

#### Unit IV

Organisational Development (OD): Definition Foundations of OD, Managing the OD Process, Action Research and OD. OD Interventions: Overview of OD Interventions, Team Interventions Inter-group and Third-Party Peacemaking Interventions. Comprehensive OD Interventions, Structural Interventions and the Applicability of OD, Training Experiences.

### Readings:



1. Blanchard P.Nick & Thacker James: Effective Training, Systems, Strategies and Practices, Pearson.
  2. French Wendell, Bell Cecil and Vohra Veena: Organisation Development, Behavioral Science Interventions for Organisation Improvement, Prentice Hall.
  3. Lynton Rolf & Pareek Udai: Training & Development, Prentice Hall.
  4. Bhatia S.K.: Training & Development, Deep & Deep Publishers.
- Note: Latest Edition of the Text Books should be followed**

## Bachelor in Business Administration

### **BBA- 3<sup>rd</sup> Year (5<sup>h</sup> Semester)**

#### Course: Global Business Environment

<b>Course Code: 504</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-IV Management of Global Business)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### Semester End Examination System

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### Continuous Comprehensive Assessment (CCA) Pattern

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### 504. (DSE-IV Management of Global Business) GLOBAL BUSINESS ENVIRONMENT

**Objective:** To get the students acquainted with the present economic environment in India and abroad. To enable the students understand the various issues involved in the macro management of the economy

#### Unit I:

Introduction. Concept of Economic Environment; Nature and scope. Macro variables: Income, Employment, Money Supply, Price Level, Interest rates, Saving and Investment. Movement and Interrelationship between different variables. Trends in Macro variables in India.

**Unit II:**

Institutional Framework of Economic Environment Fiscal Policy; Concept & Implications. Monetary Policy; Concept & Implications. Structure of Indian Economy: Growth Strategy in plans. Industrial Policy. Public sector & Private sector Monetary Policy. Fiscal Policy.

**Unit III:**

Role of Foreign Capital & Policy. Exchange Rate Policy and Exchange Controls. External Debt; International Linkages: Globalisation: Concept, Implications, Policy.

**Unit IV**

Regional Integration: EU, etc. World Trade Organization. World Bank, IMF, etc. Other Emerging Economies: China, Brazil, Russia. Global Orientation of Indian Economy: Growth and evolution of Indian MNC's, Current crises in US/Europe/Asia and its impact on economic growth of India. SAARC, ASEAN and India.

**Text Books:**

1. The Indian Economy; Problems and Prospects. Edited by Bimal Jalan, Penguin
2. V.K.Puri: Indian Economy, Himalya Publishing House

**Note: Latest Edition of the Text Books should be followed**

## Bachelor in Business Administration

### BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)

#### Course: Business Policy and Strategy

<b>Course Code: 601</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### Semester End Examination System

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### Continuous Comprehensive Assessment (CCA) Pattern

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### 601. BUSINESS POLICY AND STRATEGY

**Objective:** To equip students with the necessary inside into designing strategies for an organisation and linking the organisations strategies with the changing environment. The

course will focus on Indian cases, approaches and experiences.

### Course contents:

**Unit I:** Nature & importance of business policy & strategy: Introduction to the strategic management process and related concepts; Characteristics of corporate, business & functional level strategic management decisions. Company's vision and mission: need for a mission statement, criteria for evaluating a mission statement- Goal, Process & Input formulation of the mission statement.

**Unit II:** Environmental Analysis & Diagnosis: Analysis of company's external environment Environmental impact on organisations policy and strategy, organisations dependence on the environment, Internal analysis: Importance of organisation's capabilities, competitive advantage and core competence.

**Unit III:** Formulation of competitive strategies: Michael E. Porter's generic competitive strategies, implementing competitive strategies- offensive & defensive moves. Formulating Corporate Strategies: Introduction to strategies of growth, stability and renewal, Types of growth strategies – concentrated growth, product development, integration, diversification, Types of renewal strategies – retrenchment and turnaround. Strategic fundamentals of merger & acquisitions.

**Unit IV:** Strategic Framework: Strategic analysis & choice, Strategic gap analyses, portfolio analyses – BCG, GE, product market evolution matrix, experience curve, directional policy matrix, life cycle portfolio matrix, Behavioural considerations affecting choice of strategy.

### Readings:

1. J.A. Pearce & R.B. Robinson : Strategic Management formulation implementation and control, TMH
2. Arthur A. Thompson Jr. & A.J Strickland III : Crafting and executing strategy, TMH

### Supplementary Readings

1. Gerry Johnson & Kevan Scholes, Exploring corporate strategies, PHI
2. Upendra Kachru: Strategic Management, Excel books
3. Arthur A. Thompson Jr. and A.J. Strickland: Strategic Management –Concepts and Cases, McGraw-Hill Companies
4. Lawrence R. Jauch & William F. Glueck: Business Policy and Strategic Management (Mcgraw Hill Series in Management).

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** ***BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)***

### **Course: Financial Institutions and Markets**

<b>Course Code: 602</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Core Course</b>	

<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>
---------------------------------	--------------------------------

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

## **602. FINANCIAL INSTITUTIONS AND MARKETS**

**Objective:** The objective of this paper is to introduce students to the different aspects and components of financial Institutions and financial markets. This will enable them to take the rational decision in financial environment.

### **Course Content:**

**Unit I:** Structure of Indian Financial System: An overview of the Indian financial system, financial sector reforms: context, need and objectives; Issues in financial reforms and restructuring; future agenda of reforms; Regulation of Banks, NBFCs & FIs: Salient provisions of banking regulation act and RBI Act; Role of RBI as a central banker.

**Unit II:** Introduction to Financial Markets in India: Role and Importance of Financial Markets, Financial Markets: Money Market; Capital Market; Factors affecting Financial Markets, Linkages Between Economy and Financial Markets, Integration of Indian Financial Markets with Global Financial Markets, Primary & secondary market. Primary Market for Corporate Securities in India: Issue of Corporate Securities: Public Issue through Prospectus, Green shoe option, Offer for sale, Private Placement, Rights Issue, On-Line IPO, Book Building of Shares, Performance of Primary Market in India.

**Unit III:** Secondary Market in India: Introduction to Stock Markets, Regional and Modern Stock Exchanges, International Stock Exchanges, Demutualization of exchanges, Comparison between NSE and BSE, Indian Stock Indices and their construction, Bulls and Bears in Stock Markets, Factors influencing the movement of stock markets, indicators of maturity of stock markets, Trading of securities on a stock exchange; Settlement mechanism at BSE & NSE

**Unit IV:** Money Markets & Debt Markets in India: Money Market: Meaning, role and participants in money markets, Segments of money markets, Call Money Markets, Repos and reverse Repo concepts, Treasury Bill Markets, Market for Commercial Paper, Commercial Bills and Certificate of Deposit. Debt Market: Introduction and meaning, Market for Government/Debt Securities in India.

**Readings:**

1. Saunders, Anthony & Cornett, Marcia Millon (2007). *Financial Markets and Institutions* (3rd ed.). Tata McGraw Hill
2. Khan, M Y. ( 2010). *Financial Services* (5th ed.). McGraw Hill Higher Education
3. Shahani, Rakesh( 2011). *Financial Markets in India: A Research Initiative*. Anamica Publications
4. Goel, Sandeep. (2012). *Financial services*. PHI.
5. Gurusamy, S. (2010). *Financial Services*. TMH.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration**

### **BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

#### **Course: Project Appraisal and Analysis**

<b>Course Code: 603</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-I Finance)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **603. (DSE-I Finance)**

### **PROJECT APPRAISAL AND ANALYSIS**

**Objectives :** To explain identification of a project, feasibility analysis including market, technical and financial appraisal of a project. Understand the relevance of alternative project appraisal techniques, financial structuring and financing alternatives. This course intends to involve students to apply appraisal techniques for evaluating live projects

#### **Course Contents:**

**Unit I:** Project Appraisal : An introduction, Project appraisal and evaluation , Project cycle, Project cycle management , Identification of investment opportunities – industry analysis review of project profiles, – feasibility study , Project identification and formulation , Generation of Project ideas, Basic Principals of Project Analysis.

**Unit II:** Market Analysis: Market analysis of a project, Need for market analysis, Demand and supply analysis, Sources of information: primary /secondary data, Forecasting techniques. Technical Appraisal of project: Material and inputs, production technology, plant location and layouts, selection of plant and equipment.

**Unit III:** Financial analysis: Cost of project and means of financing , major cost components. Profitability and financial projections: cost of production, break even analysis, projected balance sheet, profit and loss account and cash flow statement.

#### **Unit-IV**

Social cost benefit analysis – value added concept, social surplus indirect impact of projects, rationale of SCBA, Efficiency and Equity in Project Appraisal, UNIDO approach. Investment appraisal: Introduction and techniques, DCF and non DCF methods, Project Appraisal parameters.

#### **Readings :**

1. Machiraju, H.R.: Introduction to Project Finance, Vikas Publishing House
2. Prasanna Chandra: Project Preparation Appraisal Budgeting and Implementation, Tata McGraw.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration**

### **BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

#### **Course: Distribution and Supply Chain Management**

<b>Course Code: 603</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-II Marketing)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class</b>	<b>Test/</b>	<b>Tutorials/</b>	<b>Attendance</b>	<b>Total</b>
---------------------------	--------------	--------------	-------------------	-------------------	--------------

	Assignments (Marks)	(Marks)	Marks
15	10	05	30

### **603. (DSE-II Marketing)**

## **DISTRIBUTION AND SUPPLY CHAIN MANAGEMENT**

**Objective:** This course would help students develop an understanding about the role of marketing channels, distribution and supply chain, key issues of supply chain and the drivers of supply chain performance. The course would acquaint the students with various concepts.

#### **Course Contents**

**Unit I:** The channel system: Rationale for marketing channel structures, Composition of marketing channels, Channel Environment. Distribution – Basic concept, Transportations, Inventory, Warehousing, Managing logistics.

**Unit II:** Concepts and importance of a Supply Chain (SC), Key issues of Supply Chain Management, Competitive and SC strategies, Achieving strategic fit.

**Unit III:** Dynamics of supply chain: Supply Chain Integration, Push-based, Pull-based and Push-Pull based supply chain, Demand Forecasting in a Supply Chain, Managing inventory in SC environment: Transportation in SC environment.

**Unit IV:** Strategic Alliances, Third party and fourth party logistics, Retailer- Supplier partnerships (RSP), Supplier evaluation and selection, Use of best practices and Information Technology (IT) in Supply Chain Management.

#### **Readings**

1. Ayers, J. B. (2006). Handbook of supply chain management (2nd ed.). Florida: Auerbach Publication.
2. Ballou, R. H., & Srivastava, S. K. (2008). Business logistics/ supply chain management (5th ed.). New Delhi: Pearson Education.
3. Chopra, S., & Meindl, P. (2007). Supply chain management: Strategy, planning and operation (3rd ed.). New Delhi: Pearson Education.
4. Coyle, J. J., Bardi, L. J., & Langley, C. J. (2008). The management of business logistics (7th ed.). USA: South-Western.
5. Dornier, P. P., Ernst, R., Fender, M., & Kouvelis, P. (1998). Global Operations Management and Logistics: Text and Cases. New York: John Wiley & Sons.
6. Mentzer, J. T. (2001). Supply chain management. New Delhi: Sage Publications.
7. Monczka, R. M., Handfield, R. B., Giunipero, L. C., & Petterson, J. L. (2009). Purchasing and supply chain management (4th ed.). USA: Cengage Learning.
8. Raghuram, G., & Rangaraj, N. (2000). Logistics and supply chain management: cases and concepts. New Delhi: Macmillan.
9. Shah, J. (2009). Supply chain management: Text and cases. New Delhi: Pearson Education.
10. Simchi-Levi, D., Kaminsky, P., Simchi-Levi, E., & Shankar, R. (2008). Designing and

managing the supply chain (3rd ed.). New Delhi: Tata McGraw Hill.

11. Coughlan, Anderson, Stern, Marketing Channels, Prentice Hall.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration**

### **BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

#### **Course: Management of Industrial Relations**

<b>Course Code: 603</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-III Human Resource)</b>	
<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>	

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **603. (DSE-III Human Resource)**

#### **PERFORMANCE AND COMPENSATION MANAGEMENT**

**Objective:** To familiarize students about concepts of performance and compensation management and how to use them to face the challenges of attracting, retaining and motivating employees to high performance.

#### **Course Contents**

##### **Unit I**

Introduction: Concept, Objectives of performance management system; Performance management and performance appraisal; Performance Management process: Performance planning, Process and Documentation of Performance appraisal, Appraisal Interview, Performance Feedback and Counselling.

##### **Unit II**

Performance management and reward systems. Performance Coaching ,Mentoring and Counselling, Competency development, Use of technology and e-PMS, International Aspects of PMS. Performance systems trends, Ethical Perspectives in performance



appraisal.

### Unit III

Introduction to Job Evaluation. Methods of Job Evaluation. Company Wage Policy: Wage Determination, Pay Grades, Wage Surveys, Wage Components. Modern trends in compensation - from wage and salary to cost to company concept, Comparable worth, broadbanding, competency based pay.

### Unit IV

Incentives plans for production employees and for other professionals. Developing effective incentive plans, pay for performance,. Supplementary pay benefits, insurance benefits, retirement benefits, employee services benefits. Benefits & Incentive practices in indian industry. Wages in India: Minimum wage, fair wage and living wage. Methods of state regulation of wages. Wage differentials & national wage policy Regulating payment of wages, wage boards, Pay commissions, dearness allowances, linking wages with productivity.

### Readings:

1. Milkovich & Newman , Compensation, McGraw Hill.
2. T.J. Bergman , Compensation Decision Making, Harcourt, Fort Worth, TX
3. Richard Henderson: Compensation management in a knowledge based world, Prentice Hall.
4. T.N.Chhabra & Savitha Rastogi Compensation management, Sun India Publications.
5. Gary Dessler , Human Resource Management, Prentice Hall.
6. Armstrong's Handbook of Performance Management: An Evidence-Based Guide to Delivering High Performance :Book by Michael Armstrong
7. Herman Aguinis: Performance Management, Prentice Hill.
8. Armstrong, M. & Baron, A: Performance management and development, Jaico Publishing House
9. Armstrong, M., Performance management: Key strategies and practical guidelines, Kogan Page, London.
10. Bagchi, S. N.: Performance management, Cengage Learning India.
11. Bhattacharyya, D.K.: Performance management systems and strategies, Pearson Education.
12. Robert B.: Performance management, McGraw-Hill Education India.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

### **Course: Multinational Business Finance**

<b>Course Code: 603</b>		
<b>Credits:06</b>	<b>Lectures: 05</b>	<b>Tutorials: 01</b>
<b>Course type</b>	<b>Discipline Specific Elective (DSE-IV Management of Global Business)</b>	

<b>Lectures to be delivered</b>	<b>1 Hr. Each (L=80, T=10)</b>
---------------------------------	--------------------------------

#### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>	<b>Time Allowed</b>
<b>70</b>	<b>32</b>	<b>3:00hrs</b>

#### **Continuous Comprehensive Assessment (CCA) Pattern**

<b>Minor Test (Marks)</b>	<b>Class Test/ Assignments (Marks)</b>	<b>Tutorials/ Attendance (Marks)</b>	<b>Total Marks</b>
<b>15</b>	<b>10</b>	<b>05</b>	<b>30</b>

### **603. (DSE-IV Management of Global Business) MULTINATIONAL BUSINESS FINANCE**

**Objective:** The course has been designed to familiarize the students with International Monetary System and Financial Institutions. Functioning of the Foreign Exchange Markets and Financial Management of a multinational firm will be the essential component of this course.

#### **Course Contents:**

##### **UNIT I**

Multinational Business Finance – MNCs (Multinational Corporations) and transnational corporations, Difference between domestic and International financial management, International Monetary System - The Gold standard, The Bretton Woods system, the flexible exchange, alternative exchange rate system, the European monetary system, Euro and its implications for Indian banking.

##### **UNIT II**

International Financial Institutions – International Monetary Fund (IMF), Asian Development Bank (ADB), International Bank for Reconstruction and Development (IBRD), Bank for International Settlement (BIS) and Organization for Economic Cooperation and Development (OECD).

##### **UNIT III**

The Foreign Exchange Markets: Introduction, types: Global and Domestic market, spot market and forward market; rates: direct and indirect quotations, bid-ask spread; Functions of the Foreign Exchange Markets; determination of forward premiums and discounts, interest arbitrage – covered interest arbitrage and interest parity theory – forecasting of foreign exchange rates.

##### **UNIT IV**

Payment Systems: Payment terms and financing international trade, international flow of funds and portfolio investment in India, FDI (Foreign Direct Investment) vs. FIIs (Foreign Institutional Investors), investment strategies of FIIs in India, FIIs and volatility, impact of FIIs investment on stock markets and public policy. Netting (with numericals), pooling, leading and lagging as international payment settlement.

#### **Readings:**

1. Shapiro, Allen C. (1995). *Multinational Financial Management*, Prentice Hall India.
  2. Eiteman, David K. Stonehill, Arthur I., and Moffett, Michael H. (2001). *Multinational Business Finance* (9th ed.). Addison Wesley, New York.
  3. Buckley, A. (2004). *Multinational Finance* (5th ed.). Pearson Education.
  4. Vij, Madhu (2010). *International Financial Management* (3rd ed.). Excel Books, N3.
  5. Levi, Maurice(1996), *International Finance*, McGraw Hill Inc., (4<sup>th</sup> ed.). New York, New Delhi.
- Madura, J. (2009). *International Financial Management* (10<sup>th</sup>ed.). New Delhi, Cengage Learning.

**Note: Latest Edition of the Text Books should be followed**

## **Bachelor in Business Administration** **BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

### **Course: Project Report**

<b>Course Code: 604</b>
<b>Credits:06</b>
<b>Course Type: Discipline Specific Elective (DSE-I Finance)</b>

### **Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>
<b>100 (External Evaluation)</b>	<b>45</b>

### **604. (DSE-I Finance)** **Project Report**

**Bachelor in Business Administration**  
**BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

**Course: Project Report**

<b>Course Code: 604</b>
<b>Credits:06</b>
<b>Course type: Discipline Specific Elective (DSE-II Marketing)</b>

**Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>
<b>100 (External Evaluation)</b>	<b>45</b>

**604. (DSE-II Marketing)**  
**Project Report**

**Bachelor in Business Administration**  
**BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

**Course: Project Report**

<b>Course Code: 604</b>
<b>Credits:06</b>
<b>Course type: Discipline Specific Elective (DSE-III Human Resource)</b>

**Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>
<b>100 (External Evaluation)</b>	<b>45</b>

**604. (DSE-III Human Resource)**  
**Project Report**

**Bachelor in Business Administration**  
**BBA- 3<sup>rd</sup> Year (6<sup>th</sup> Semester)**

**Course: Project Report**

<b>Course Code: 604</b>
<b>Credits:06</b>
<b>Course type: Discipline Specific Elective (DSE-IV Management of Global Business)</b>

**Semester End Examination System**

<b>Maximum Marks Allotted</b>	<b>Minimum Pass Marks</b>
<b>100 (External Evaluation)</b>	<b>45</b>

**604. (DSE-IV Management of Global Business)**  
**Project Report**

# **HIMACHAL PRADESH UNIVERSITY**

## **BACHELOR OF COMPUTER APPLICATIONS (BCA)**

As per the amendments on 14.8.15 by the Executive Council of H.P. University, Shimla and effective from session 2015-16 onwards

**Duration: 3 Years (6 Semesters)**

### **1. About the Course**

Bachelor of Computer Applications (BCA) is three years under graduate course spread over six semesters under self financing scheme.

### **2. Eligibility**

Candidates who have passed 10+2 examination from H.P. Board/CBSE/ICSE or any other examination considered equivalent to 10+2, by the Himachal Pradesh University, Shimla, with 40% Marks (35% marks for SC/ST category), shall be eligible.

Maximum age limit for admission to BCA course is 21 years for general category, 24 years for SC/ST category and 23 years for girls candidates, as on the 1<sup>st</sup> July of the year concerned. The Vice-Chancellor may permit age relaxation up to maximum of three months.

### **3. Mode of Selection**

The admission to BCA course will be made on the basis of merit of the qualifying examination.

As per H.P. University rules 75% seats will be filled out of the candidates who have passed their 10+2 examination from the school situated in Himachal Pradesh irrespective of the Board. Remaining 25% seats will be filled on all India basis. Other reservation rules of H.P. University shall be applicable.

### **4. Scheme of Examination**

The pass percentage in each subject will be 40%.

#### **i) Theory Papers:**

For Regular students each paper will be of 100 marks (70 marks for End Semester Examination and 30 marks for Continuous Comprehensive Assessment) and duration of each paper will be 3 hours.

For ICDEOL students each theory paper will be of 100 marks and of 3 hours duration.

In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5 to 10 parts, out of the entire syllabus. In all, five questions are to be attempted.

- i) Continuous Comprehensive Assessment (CCA)** accounting for 30% of the final grade that a student gets in a course; and
- ii) End-Semester Examination (ESE)** accounting for the remaining 70% of the final grade that the student gets in a course.

**Note:**

1. A student will have to pass both the components (i.e. CCA and ESE) separately to become eligible to be declared successful in a course.
2. The ratio of Continuous Comprehensive Assessment (CCA) and End-Semester Examination (ESE) would remain unchanged (i.e. 50:50) for the students of the academic sessions admitted in 2013 and 2014.

**Mid-Term (Minor) Test** – There will be one mid-term test, to be conducted when approximately 2/3 of the syllabus has been covered. This mid-term test will be for 15 marks. Mid-term test will be conducted by the college in consultation with the teacher.

**Note:**

Mid-term (Minor) Test will be of 30 marks for the students of the academic sessions admitted in 2013 and 2014 respectively.

**Seminar/Assignment/Term Paper**–The remaining 10 marks of the CCA will be awarded on the basis of seminar/assignment/term paper etc. that the course teacher might give to the students.

**Note:**

Seminar/Assignment/Term Paper will be of 15 marks for the students of the academic sessions admitted in 2013 and 2014.

**End-Semester Examination (ESE):** The remaining 70% of the final grade of the student in a course will be on the basis of an end-semester examination (ESE) that will be for three hours duration and will be covering the whole syllabus of the course.

**Note:**

1. Only those students will be allowed to appear in the ESE who have been successful in the CCA.
2. The remaining 50% of the final grade for the students of the academic sessions 2013 and 2014 in a course will be on the basis of an end-semester examination (ESE) that will be for three hours duration and will be covering the whole syllabus of the course.

A student, who fulfills all the requirements for appearing in a semester examination, is unable to appear in the examination or to complete it on account of his/her own serious illness, accident, or on account of the death of near relative (mother, father, brother and sister), or the dates of state or national level examinations falls on dates of the semester exams may be allowed to appear in the semester exam in the next academic year when examination for that semester is due. Permission to sit in the examination will be permitted by college Principal/Director on the production of a valid certificate/document

from the competent authority. The college will send the name of the student to the Registration and Migration Cell for information.

The question paper for the ESE may have any one of the following patterns:

**Part A**

Fifteen objective type questions (MCQ / True or False / fill in the blanks etc.) for 1 mark each.  $15 \times 1 = 15$  marks

**Part B**

Ten short answer (25 words) type questions for 2 marks each.

$10 \times 2 = 20$  marks

**Part C**

Ten questions of Medium Length Answer type (50 words) for 4 marks each of which five will have to be answered.

$5 \times 4 = 20$  marks

**Part D**

Three questions of long answer (400 words) type, of which one is to be attempted for 15 marks.

$15 \times 1 = 15$  marks

**Total marks (A + B + C + D)**

**15+ 20 + 20 +15 = 70 marks.**

**OR (PREFERABLY)**

**Part A (Compulsory)**

Compulsory of 30 marks consisting of 10 objective type questions of 1 mark each (in MCQ/True False/Fill in the blanks or such type), and five short answer questions (25 to 50 words) of 4 marks each covering whole of the syllabus.

**Part B (UNIT I)**

One question out of two questions each of 10 marks. Each of these questions may contain sub parts and will be long type.

**Part C (UNIT II)**

One question out of two questions each of 10 marks. Each of these questions may contain sub parts and will be long type.

**Part D (UNIT III)**

One question out of two questions each of 10 marks. Each of these questions may contain sub parts and will be long type

**Part E (UNIT IV)**

One question out of two questions each of 10 marks. Each of these questions may contain sub parts and will be of long type.

**Total marks (A + B + C + D + E)**

**30+10+10+10+10 = 70 marks.**



The result would be declared by the Controller of Examination of the Himachal Pradesh University and the degree (or certificate or diploma as the case may be) conferred. A candidate shall be eligible for the conferment of the Bachelor's degree only if he / she has earned the minimum required credits for the programme prescribed in the regulations (i.e. (a) For a bachelors degree with major (honours): 120 credits in total and minimum of 9 credits in Compulsory Courses; 56 credits in Core Courses; a minimum of 40 credits in Elective Courses (minimum 20 credits in each of the minor subjects, or (b) For a bachelors degree: 106 credits with 48 credits in Core Courses; 48 credits in Elective Courses (24 credits in each of the two subjects studied) and minimum of 9 credits in Compulsory Courses); and a minimum of 1 credit of GI and H.

## **ii) Practical Examination**

**Max. Marks: 50**

<b>CCA (Continuous Comprehensive Assessment):</b>	<b>35</b>
<b>ESE (End Semester Examination):</b>	<b>15</b>

**Duration:** 3 hours.

Practical exam will be conducted by the external examiner from the panel submitted to The Chairman, Computer Science Department, Himachal Pradesh University and duly approved by the competent authority of the university, Himachal Pradesh University, Shimla.

## **iii) Project Work**

**Max. Marks: 50**

<b>CCA (Continuous Comprehensive Assessment):</b>	<b>35</b>
<b>ESE (End Semester Examination):</b>	<b>15</b>

In the 6<sup>th</sup> semester the student has to develop one project, which will be evaluated by the external examiner from the panel submitted to The Chairman, Computer Science Department, Himachal Pradesh University, and duly approved by the university authority/evaluation branch, Himachal Pradesh University, Shimla on the following basis:

1. Project Report	10 Marks (To be evaluated externally)
2. Seminar	15 Marks (To be evaluated internally)
3. Viva Voce	25 Marks (To be evaluated externally)

## **5. Medium of Instruction**

English will be the medium of instruction as well as examination

## **6. Promotion Rule**

As per the University norms.

**HIMACHAL PRADESH UNIVERSITY**  
**BACHELOR OF COMPUTER APPLICATIONS (BCA)**

Effective from 2012 onwards

**First Year (1<sup>st</sup> Semester)**

<b>Paper Code</b>	<b>Paper Title</b>	<b>Credit</b>	<b>ESE</b>	<b>CCA</b>	<b>Max. Marks</b>	<b>Exam Duration Hours</b>
BCA0101	Mathematics-I	4	70	30	100	3
BCA0102	Applied English	4	70	30	100	3
BCA0103	Computer Fundamentals	4	70	30	100	3
BCA0104	C Programming	4	70	30	100	3
BCA0105	Office Automation Tools	4	70	30	100	3
BCA0104(P)	C Programming Lab-I	3	35	15	50	3
BCA0105(P)	Office Automation Tools Lab-II	3	35	15	50	3
<b>Total</b>					<b>600</b>	

**First Year (2<sup>nd</sup> Semester)**

<b>Paper Code</b>	<b>Paper Title</b>	<b>Credit</b>	<b>ESE</b>	<b>CCA</b>	<b>Max. Marks</b>	<b>Exam Duration Hours</b>
BCA0201	Mathematics-II	4	70	30	100	3
BCA0202	Communicative English	4	70	30	100	3
BCA0203	Digital Electronics	4	70	30	100	3
BCA0204	Data Structures	4	70	30	100	3
BCA0205	Data Base Management System	4	70	30	100	3
BCA0204(P)	Data Structures Lab-III	3	35	15	50	3
BCA0205(P)	Data Base Management System Lab-IV	3	35	15	50	3
<b>Total</b>					<b>600</b>	

### Second Year (3<sup>rd</sup> Semester)

Paper Code	Paper Title	Credit	ESE	CCA	Max. Marks	Exam Duration Hours
BCA0301	Mathematics-III	4	70	30	100	3
BCA0302	Business Practices and Management	4	70	30	100	3
BCA0303	Computer Organization	4	70	30	100	3
BCA0304	Object Oriented Programming with C++	4	70	30	100	3
BCA0305	Desktop Publishing and Designing	4	70	30	100	3
BCA0304(P)	Object Oriented Programming with C++ Lab-V	3	35	15	50	3
BCA0305(P)	Desktop Publishing and Designing Lab-VI	3	35	15	50	3
<b>Total</b>					<b>600</b>	

### Second Year (4<sup>th</sup> Semester)

Paper Code	Paper Title	Credit	ESE	CCA	Max. Marks	Exam Duration Hours
BCA0401	Personnel Management	4	70	30	100	3
BCA0402	Accounting	4	70	30	100	3
BCA0403	System Analysis and Design	4	70	30	100	3
BCA0404	Internet Technology & Web Page Design	4	70	30	100	3
BCA0405	Programming in Visual Basic	4	70	30	100	3
BCA0404(P)	Internet Technology & Web Page Design Lab-VII	3	35	15	50	3
BCA0405(P)	Programming in Visual Basic Lab-VIII	3	35	15	50	3
<b>Total</b>					<b>600</b>	

### Third Year (5<sup>th</sup> Semester)

Paper Code	Paper Title	Credit	ESE	CCA	Max. Marks	Exam Duration Hours
BCA0501	Operating System	4	70	30	100	3
BCA0502	eCommerce	4	70	30	100	3
BCA0503	Management Information System	4	70	30	100	3
BCA0504	ASP.net Technologies	4	70	30	100	3
BCA0505	Computer Oriented Statistical Methods	4	70	30	100	3
BCA0504(P)	ASP.net Technologies Lab-IX	3	35	15	50	3
BCA0505(P)	Computer Oriented Statistical Methods Lab-X	3	35	15	50	3
<b>Total</b>					<b>600</b>	

### Third Year (6<sup>th</sup> Semester)

Paper Code	Paper Title	Credit	ESE	CCA	Max. Marks	Exam Duration Hours
BCA0601	Computer Networks	4	70	30	100	3
BCA0602	Numerical Methods	4	70	30	100	3
BCA0603	Multimedia Technology	4	70	30	100	3
BCA0604	Computer Graphics	4	70	30	100	3
BCA0605	Software Engineering	4	70	30	100	3
BCA0604(P)	Computer Graphics Lab-XI	3	35	15	50	3
BCA0606	Major Project	3	35	15	50	
<b>Total</b>					<b>600</b>	

**UNIT-I**

Set theory, Relations, quadratic equations, sequence & series, binomial theorems, determinants, matrices.

**UNIT-II**

Rectangular co-ordinates, length of a line segment, section ratio, area of a triangle, equations of a straight line circles.

**UNIT-III**

Trigonometric functions, trigonometrical ratios of negative and associated angles, trigonometrical ratios of compound angles, multiple and sub multiple angles, Heights and distances.

**UNIT-IV**

Functions, limits and continuity, Derivative of functions, Maxima & Minima, Indefinite integrals and definite integrals.

**Text & Reference Books:**

1. L.R. Dhanda, G.K. Saini and Suranjan Saha, "Systematic Modern Mathematics- Part-I & Part-II", Kalyani Publishers.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT- I**

Comprehension : One unseen passages of 250-300 words in length with a variety of comprehension questions including 05 marks for word0attack skills such as word formation and inferring meaning, finding opposites etc. The passage can be a factual passage (e.g., instruction, description, report etc.) or a literary passage (e.g., extract from fiction, drama, poetry, essay or biography), or a discursive passage involving opinion, (argumentative, persuasive or interpretative text).

**UNIT- II**

Vocabulary: Change the Number, Change the Gender, Words commonly mis0spelt, Antonyms, Synonyms, Fill up using correct determinant.

**UNIT-III**

Filling up the correct form types of the tense in the sentence: present/ past /future tense with simple/continuous/perfect/ perfect continuous forms, Reordering word groups in the sentence to make a meaningful sentence, Writing meaning of given word and using in the sentence.

Conversion among various types of sentences: affirmative, interrogative sentences, negation, exclamations.

**UNIT-IV**

Composition: Composition on a given topic/title based on any current social, environment, health issues.

Formal Letter Writing (invitation, accepting/rejecting an invitation, apology, welcome, thanking complements ),

**Text & Reference Books:**

1. W. Standard Allen, " Living English Structure ", (Orient Longman)
2. Wilford D. Best, " The Student's Companion" , (Rupa)

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Introduction: Characteristics of Computers, Evolution of computers, Capabilities and limitations of computers, Generations of computers, Types of computers(micro, mini, main frame, supercomputers), Block diagram of computer, Basic components of a computer system0 Input unit, output unit, Arithmetic logic Unit, Control unit, central processing unit, Instruction set, registers, processor speed, type of processors.

**UNIT-II**

Memory: main memory organization, main memory capacity, RAM, ROM, EPROM, PROM, cache memory, PCs specifications. Secondary Storage Devices- Magnetic Tape, Magnetic Disks0Internal Hard Disk, External Hard Drives, Floppy Disks, Optical Disks-CD, VCD, CD-R, CD-RW, DVD, Solid State Storage0Flash Memory, USB Drives.

**UNIT-III**

Input devices: Keyboard, Pointing Devices0mouse, Touch Screens, Joystick, Electronic pen, Trackball, Scanning Devices-Optical Scanners, OCR, OMR, Bar Code Readers, MICR, Digitizer, Electronic card reader, Image Capturing Devices-Digital Cameras. Output devices- Monitors0 CRT, LCD/TFT, Printers- Dot matrix, Inkjet, Laser, Plotters- Drum, Flatbed, Screen image projector.

**UNIT-IV**

Computer Software: Software and its Need, Types of software0System software, Application software, System software0operating system, utility program, programming languages, assemblers, compilers and interpreter, introduction to operation system for PCs-DOS, windows, linux, file allocation table (FAT & FAT32), files & directory structure and its naming rules, programming languages0machine, assembly, high level, 4GL, their merits and demerits, application software and its types – word0processing, spreadsheet, presentation graphics

**Text & Reference books:**

1. Pradeep K. Sinha, Priti Sinha, "Computer Fundamentals". BPB Publications.
2. Rajaraman, V., "Fundamental of Computers". Prentice Hall India, New Delhi.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.



**UNIT-I**

Introductory Concepts: Types of programming languages, Introduction to C, some simple C programs, Desirable program characteristics.

C Fundamentals: C character Set, Identifiers and keywords, data types, constants, variables and arrays, Declarations, expressions, statements, Symbolic constants.

**UNIT -II**

Operators and expressions: Arithmetic operators, unary operator, Relational and logical operators, assignment operators, conditional operators, Library Functions.

Data Input and Output: Preliminaries, single character input, single character output, Entering input data, writing output data, the gets() and puts() function.

**UNIT-III**

Control Statements: Preliminaries, Branching, Looping, Nested control statements, switch statement, break statement, The continue statement, The goto statement, The comma operator.

Arrays: Defining an array, processing an array, passing arrays to functions, Multidimensional arrays, Arrays and strings.

**UNIT-IV**

Functions: A brief overview, Defining a function, accessing a function, function prototypes, passing arguments to a function, recursion.

Pointers: Fundamentals, Pointer declarations, Passing pointers to the functions, pointers and one dimensional array, dynamic memory allocation, Operations on pointers, arrays of pointers.

**Text & Reference Books:**

1. Byron Gottfried, "Programming with C", Schaum's Outlines, Tata McGraw Hill.
2. Mullis Cooper, "Spirit of C": Jacob Publications.
3. Yashwant Kanetkar, "Let us C": BPB.
4. Kerningham B.W. & Ritchie D. M., "The C Programming Language": PHI.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT -I**

DOS commands: (internal (DIR, DATE, TIME, CLS, CD, RD, MD, PATH, TYPE, DEL, ECHO, COPY, REN, PROMPT, VOL, VER), external (ATTRIB, CHKDSK, DISKCOPY, DISKCOMP, XCOPY, TREE, DELTREE, DOSKEY, FORMAT, FIND, SORT, FDISK, MORE, SYS)), Concept of files & directories, Wild card characters, Redirection operators.

Windows 2007: Definition, Benefits, Features & uses of Windows 2007, Control panel, Accessories, Task bar, My computer uses, Recycle bin.

**UNIT -II**

Common Office 2007: Elements, Introduction to Office 2007, Customizing the Office Environment, Managing Files in Office, Text Tools, Drawing and Graphics Tools.

Word Processing: Definition, Benefits, Features & uses of Word 2007, Menus, Toolbars, Cursor control keys, Short cut keys, Hot keys, Editing Text, Document Formatting, Reusable formatting with Styles and Templates, File handling (opening, creating, saving, printing, editing), Formatting text, Find and replace, Tables and Columns, Advanced Page Layout in Word, Automating Information with Fields, Managing Long Documents, Spell check, Thesaurus, File protection, Mail Merge, Labels, and Envelopes, Macros.

**UNIT -III**

Spreadsheets: Definition, Benefits, Features & Uses of MS Excel 2007, Menus, Toolbars, Worksheets, Formatting Worksheets and Restricting Data, Calculating with Formulas and Functions, Ranges, Auto fill, Data (sort, filter, validation, subtotal), Viewing and Manipulating Data with charts and PivotTables, Print, Goal seek, Scenario, Macros, Creating Excel Databases.

**UNIT -IV**

Presentations: Definition, Benefits, Features & Uses of PowerPoint, Menus, Toolbars, Creating and Editing Slides, Adding graphics, Multimedia, and Special Effects to Slides, Insert (picture, slide, text), Master slide, Views, Animation, Action buttons, Macros.

**Text & Reference Books:**

1. Jennifer Ackerman Kettell, Guy Hart0Davis, Curt Simmons, "Microsoft Office 2003: The Complete Reference", Tata McGraw Hill.
2. Biswaroop Roy Choudhary, "Computer course", Fusion Books.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Rolle's Theorem, Lagrange's Mean Value Theorem, Cauchy's Mean Value Theorem, their geometrical significance and applications. Successive differentiation and Leibnitz Theorem.

**UNIT-II**

Number system: division algorithm, greatest common divisor, Least common multiple, congruence relation, Integer arithmetic, Modular arithmetic.

**UNIT-III**

Group: definition of Group, Groups of numbers, groups of residues, groups of matrices, Groups of functions, Groups of subsets of a set, Properties of Groups, characterization of Groups, cyclic Groups.

**UNIT-IV**

Ring: commutative ring, ring with unity, Ring of Polynomials, ring of functions, Elementary properties of ring. Fields.

**Text & Reference Books:**

1. J.C. Burkill, "A First Course in Mathematical Analysis", Vikas Publishing House.
2. Sharma, R.K., Shah, S.K. and Shnkar A.G. Algebra I ; Pearson, 2012.
3. Buston, D.M., elementary Number Theory; Tata McGrawHill.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT –I**

Vocabulary: Fill up using correct form of verb, Usage of the adverb, adjective etc, Write Antonym of the given word and use both the given word and its antonym in the single sentence clarifying meaning and usage, Give different meanings to Synonyms and use them in sentences , Give meaning and make sentences using idioms.

Grammar: Conversion among various types of the tenses in the sentence: present/ past /future tense with simple/continuous/perfect forms , Conversion between Direct/Indirect speech , Conversion between active/passive voice , Conversion among various types of sentences: affirmative, interrogative sentences, negation, exclamations .

**UNIT –II**

Skills in Writing: letters, official/business correspondence. CV's, Tech. Reports/types, Precis, comprehension, Paragraph writing (200 word) on current topics, writing notices, agenda, circulars.

**UNIT –III**

Secretarial Skills: Effective communication, listening and feedback skills, telephone handling, Attending meeting, preparing of agenda, writing of minutes, summaries. Handling problem situations. Control of voice and proper use of phonetics.

**UNIT –IV**

Presentation and Discussion Skills: Types of communication. Barriers to Communication. Effective use of kinesics, Planning interviews and making presentations. Taking initiatives, especially in group discussions, overcoming nervousness, making audience analyses and establishing leadership.

**Text & Reference Books:**

1. K.K. Sinha, "Business Communication".
2. Varinder Pal, "Business Communication".
3. T. M. Farhatullah, "Communication Skills for Technical Students".
4. Shiv K. Khera, "You can Win".

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Fundamentals of semiconductor physics: Energy bands in solids, pn junction diode depletion region, forward and reverse bias, diode as switch; Bipolar Junction Transistor, transistor configurations, bipolar junction transistor (CE configuration) as switch, Saturated and non-saturated logic, Integrated Circuits, characteristics of digital logic families: TTL, ECL, CMOS.

**UNIT-II**

Logic gates: AND, OR, NOT Gates and their Truth Tables, NOR, NAND & XOR gates, Boolean algebra, Basic Boolean Law's, Demorgan's theorem, Boolean function and their truth tables.

**UNIT-III**

MAP simplification: Minimization techniques, K-Map, Sum of Product & Product of Sum, Venn diagram. Combinational circuit.

**UNIT-IV**

Sequential circuits: Half adder & Full adder, BCD adder, Full Subtractor, Flip-flops-RS, D, JK, T & Master-Slave flip-flops, Shift registers, Multiplexer, Encoder, Decoder.

**Text & Reference Books:**

1. Rajaraman V. & Radhakrishnan, "An Introduction To Digital Computer Design", PHI.
2. Malvino & Leach, "Digital Principles & Applications", TMH Publications.
3. Jain R.P. , "Modern Digital Electronics". TMH Publications.
4. Malvino, "Digital Computer Electronics". TMH Publications.
5. Bartee T.C., "Digital Computer Fundamentals". TMH Publications.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 50/10 parts, out of the entire syllabus. In all, five questions are to be attempted.



**UNIT-I**

Preliminaries: Concept & notation, common operation on data structures, algorithm complexity, time-space trade off between algorithm, physical & logical representation of different data structures.

Arrays: Arrays defined, representing arrays in memory, Various operation (traversal, insertion, deletion), Multidimensional arrays, Sequential allocation, Address calculation.

**UNIT-II**

Linked List: Definition, type (linear, circular, doubly linked, inverted), representing linked lists in memory, advantages of using linked list over arrays, various operations on Linked list (traversal, insertion, deletion).

**UNIT-III**

Stacks: Definition & concepts of stack structure, Implementation of stacks, Operation on stacks (push & pop), Application of stacks (converting arithmetic expression from infix notation to polish and their subsequent evaluation), quick sort technique to sort an array, recursion).

Queue: Definition & concept of queues, implementation of queue, operation on queues (insert & delete), circular queue.

**UNIT-IV**

Trees Structures: Tree, Binary Trees, Tree Traversal Algorithms (Pre-Order, In-Order, Post-Order), Threaded Trees, Binary Search Trees.

Sorting & Searching: Selection sort, Bubble sort, Merge sort, Radix sort, Quick sort, Sequential search, Linear search and their complexity.

**Text & Reference Books:**

1. Jean Paul Tremblay & Paul G. Sorenson, " An Introduction to Data Structures with Applications", Tata McGraw Hill.
2. Aaron M. Tenenbaum, Yedidyah Langsam, Moshe J. Augenstein, " Data Structures using C", PHI.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Introduction To Database Concepts: Data Modeling for a Database, Fields, Records and Files, Abstraction and Data Integration, Database Architecture, Users, Structure of DBMS, Advantages and Disadvantages of DBMS.

Data Models: Entity, Attribute, Relationship, Data Model Classifications, File based, Traditional, Semantic, Entity-Relationship Model.

**UNIT-II**

File Organization: Operation on files, Sequential Files, Index-Sequential Files, Types of Indexes, Implicit, limit, multilevel, Direct Files, Indexing using B-Tree Structure.

Relational Model: Relational Database, Relational Algebra, Relational Calculus.

**UNIT-III**

Relational Database Design: Relational Scheme and Relational Design, Functional Dependency, Normal forms (First, Second, Third, Boyce Code), Decomposition and dependency preservation, Multi-valued dependency.

**UNIT-IV**

Ms Access: Tables (Creation/Design structure, Data Entry), Primary keys, Foreign Keys Master-Detail Table, Query (Select, Make-Table, Update, Append, Delete) Form (Modal, Modeless), Relationships Report (Creation of a simple report from a table and from a query).

**Text & Reference Books:**

1. Elmasri And Navathe, "Fundamentals of Database Systems", Benjamin/Cummings Publishing Co. Inc.
2. Bipin C. Desai, "An Introduction to Database Management System".
3. Users Reference Manuals Of Ms Access.
4. Date, C.J., "An Introduction to Database system", Narosa Publishing House.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 50/10 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Order, degree, solution and formation of a differential equation. Standard techniques of solving linear differential equations with constant coefficients, Cauchy's and Legendres.

**UNIT-II**

Complex numbers and their representation in a plane. Argand diagram, algebra of complex numbers, modulus and arguments of a complex number, square root of a complex number and cube roots of unity, triangle inequality, De-Moivre's theorem, roots of complex numbers.

**UNIT-III**

Primes, Primarily testing, Factorization, Chinese Remainder Theorem, Quadratic congruence, Exponentiation and Algorithm

**UNIT-IV**

Finite fields,  $GF(p)$  fields,  $GF(p^n)$  fields, Polynomials and their operations over  $GF(2)$  and  $GF(2^n)$

**Text & Reference Books:**

1. Dummit, D. and Foote, R. Abstract Algebra. Hoboken, NJ: John Wiley & Sons, 2004.
2. Durbin, J. Modern Algebra, Hoboken, NJ: John Wiley & Sons, 2005.
3. Shepley L. Ross, "Differential Equations", John Wiley & Sons.
4. B.S. Grewal, "Higher Engineering Mathematics", Khanna Publisher.
5. J.P. Tremblay and R. Manohar, "Discrete Mathematical structures with applications to Computer Science", Tata McGraw Hill.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Concepts of Business: Commerce and Industry, Business Environment, Macro and Micro Environment, Business System, Forms of Business Organization.

**UNIT-II**

Management: Meaning, definition and importance, Management concept, functions, Principles of management and Management Process.

**UNIT-III**

Planning: concepts and its types, Decision making concept, Management by objectives (M.B.O.). Motivation0Concepts and theories, Leadership0 Concepts and styles.

**UNIT-IV**

Organizing: Concepts, Nature and Significance, Authority and responsibility, Centralization and Decentralization, Communication0 Nature, Process and types of communication networks. Managerial control 0 concepts and Process, Techniques of control.

**Text & Reference Books:**

1. Sharma Sudhir and Bansal, "Principles of Management", Anamika Publishers.
2. Sharma, R. K. and Gupta, S. K., "Business Organisation and Management", Kalyani Publishers.
3. Sharma, N. K., "Current issues in Management", Indus Valley Publication.
4. Singh, U.K. and Dewan J.M., "Business Management", Management Executives Handbook Series.
5. Michael A. Hitt, Black, J. Stewart, "Management", Pearson Education.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT 1**

Data representation: number systems, decimal to binary, octal and hexadecimal conversion and vice versa, binary coded decimal numbers, hamming code for error detection, alphanumeric codes, arithmetic operations, binary addition and subtraction, addition/subtraction of numbers in 1's and 2's complement notation for binary numbers and 9's and 10's complement notation for decimal numbers, binary multiplication and division, BCD arithmetic, floating point addition and subtraction.

**UNIT II**

Register Transfer Language: Register transfer, Bus and Memory transfer (three-stage bus buffers, memory transfer), arithmetic micro-operations (Binary Adder, Binary-adder-Subtractor, binary incrementer, arithmetic circuit), Logic micro-operation (list of logic micro-operations, hardware implementation), shift micro-operations (hardware implementation), arithmetic logic shift unit.

**UNIT III**

Instruction codes: (stored program organization, indirect address), computer registers (common bus register), computer instructions (instruction set completeness), timing and control, instruction cycle (fetch and decode, types of instruction, register-reference instructions), Micro programmed control, control memory, addressing sequencing (conditional branching, mapping of instructions, subroutine)

**UNIT IV**

Central Processing Unit: Introduction, general register organization (control word, examples of micro-operations), stack organization (register stack, memory stack, reverse polish notation, evaluation of arithmetic expressions), instruction formats (three-address instructions, two address instructions, one-address instructions), addressing modes, data transfer and manipulation (data transfer instructions, data manipulation instructions, arithmetic instructions, logical and bit manipulation instructions, shift instructions), Program control (status bit conditions, conditional branch instructions, program interrupt, types of interrupt).

**Text and reference books:**

1. M.Morris Mano, "Computer System Architecture" 3<sup>rd</sup> edition, PHI.
2. V. Rajaraman, T. Radhakrishanan, "An Introduction to Digital Design", PHI
3. J.P.Hays, "Computer Organization and Architecture", McGraw Hill.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Object oriented programming: Need for OOP, object oriented approach, characteristics of OOP language- objects, classes, Inheritance, Reusability, Polymorphism, overloading advantage of OOP, relationship between C and C++.

Programming Basic: Basic program construction, output using cout, preprocessor directive, comments, integer variables, character variables, input with cin, Type bool, setw Manipulator, type float, type conversion, arithmetic operators, relational operators, logical operators.

**UNIT-II**

Loops and decision control statements: loop- for, while, do, decision-if, if- else, switch, conditional operator, other control statements- break, continue, goto.

Structures and functions: structures, Accessing structure members, structure within a structure, Enumerated Data type, simple functions, passing arguments to functions, Returning values from functions, reference arguments, overloaded functions, storage classes, scope resolution operator.

**UNIT-III**

Objects and classes: A simple class, classes and objects, specifying a class, using a class, C++ objects as physical objects, C++ objects as data types, Constructors, objects as function arguments, returning objects from functions.

Arrays: Array fundamental0defining array, array elements, Accessing array elements, Initializing arrays, multidimensional arrays, passing arrays to functions, array of objects, strings-string variables, Avoiding Buffer overflow, string constants, array of strings string as class members, Standard C++ string Class.

**UNIT-IV**

Operator overloading: Overloading unary operators- the operator keyword, operator arguments, operator return values nameless temporary objects, limitation of increment operators, overloading Binary operators, data conversion, Pitfalls of operator overloading and conversion.

Inheritance: Derived class and base class, specifying the derived class, accessing base class, members, derived class constructors, overriding member functions, class hierarchies, public and private Inheritance, levels of inheritance, multiple inheritance, Ambiguity in Multiple Inheritance, Aggregation- Classes Within Classes.

**Text & Reference Books:**

1. Robert Lafore, "Object-Oriented Programming in C++", Galgotia Publications.
2. B. Chandra, "Object-Oriented Programming using C++", Narosa Publications.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.



**UNIT-I**

D.T.P For Publications: Introductions to Printing , Types of Printing, Offset Printing, Working of offset Printing, Transparent Printout, Negative & Positives for Plate were making, Use of Desk Top Publishing in Publications, Importance of D.T.P in Publication, Advantage of D.T.P in Publication, Mixing of graphics & Image in a single page production, Laser printers Use, Types, Advantage of lager printer in publication.

**UNIT-II**

Page Layout: Different page format / Layouts, News paper page format, Page orientations, Columns & Gutters, Printing in reduced sizes.

Page Maker: Introductions To Page Maker Icon and help, Tool Box, Styles, Menus etc., Different screen Views, Importing text/Pictures, Auto Flow, Columns, Master Pages and Stories, Story Editor, Menu Commands and short0cut commands, Spell check, Find & Replace, Import Export etc., Fonts, Points Sizes, Spacing etc., Installing Printers, Scaling (Percentages), Printer setup.

**UNIT-III**

Use Of D.T.P: Use of D.T.P. in Advertisements, Books & Magazines, News Paper, Table Editor.

Adobe Photoshop: Introduction to Photoshop & Flash, Documents, Various Graphic Files

**UNIT-IV**

Extensions Vector Image and Raster Images, Various Colour Modes and Models. Introduction to Screen and Work Area, Photoshop Tools & Palettes ,Use of Layers & Filters Working with Images.

**Text & Reference Books:**

1. Page maker 4.0 & 5.0 by b.p.o. publications.
2. Prakhar complete course for dtp (coreldraw, pagemaker, photoshop)

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

## **BCA0401 Personnel Management**

**L T P**  
**4 0 0**

### **UNIT-I**

Introduction to Personnel Management : Nature, Scope, functions and significance, Personnel Policies, classification and organization of Personnel Department.

### **UNIT-II**

Human Resource Planning: Meaning, objectives and importance of HRM, Job Analysis and Design, Recruitment, selection, Terms of Employment, Induction and Briefing, Orientation and Placement.

### **UNIT-III**

Human resources Development: Training and Development and Promotion and incentives, retirement benefits.

### **UNIT-IV**

Performance Appraisal and Job Evaluation, Employee remuneration and various incentive plans.

### **Text & Reference Books:**

1. Ashwathappa, K, "Human Resource and Personnel Management", Tata McGraw Hill.
2. De Cenzo, D. A. Robbins. S, "Personnel and Human Resource Management", Prentice Hall of India.
3. Mamoria, C.B., "Personnel Management", Himalaya Publishing House.
4. Deardwell, Ian, "Human Resource Management", Prentice Hall India.
5. Grobler, P. A., "Human Resource Management", Anamika Publishers.

**Note:** In each theory paper, nine questions are to be set. Two questions are to set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Accounting : Meaning, Definition and objects of Accounting, Accounting Principles, Accounting concepts and Conventions, Principle of Double Entry System, Journal Entry, Ledger, Cash Book and Subsidiary books, Trial Balance and rectification of errors.

**UNIT-II**

Final Account: Manufacturing Account, Trading Account, Profit and Loss Account and Balance Sheet.

**UNIT-III**

Cost Accounting: Nature and scope of Cost Accounting, Cost Concept and classification, Cost Sheet, Marginal Costing (BEP and Cost Volume Profit analysis).

**UNIT-IV**

Management Accounting: Meaning, importance and Scope of Management Accounting Brief introduction to the tools of financial statements, Analysis (Ratio, Fund Flow and Cash Flow Analysis).

**Text & Reference Books:**

1. Maheswari, S. N., "Fundamental Accounting", Vikas Publishing House.
2. Anthony, R.H. and Roece, J. S., "Accounting Principles", Homewood Illinois.
3. Hongren, Charles J. and Faster, "Cost Accounting: A managerial Emphasis", Prentice Hall International.
4. Gupta, R. L., "Advanced Financial Accounting", Sultan Chand and Company.
5. Pandey, I. M., "Management Accounting", Vikas Publishing House.
6. A.T. Kinson, "Management Accounting", Pearson Education.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT -I**

Overview of System Analysis and Design: Business System concepts, System development life cycle, Project Selection, Feasibility Analysis, Design, Limitation, testing and evaluation.

Initial Investigation: Sources of Requests, User / Analyst interaction, Qualities of a System Analyst.

**UNIT -II**

Feasibility studies: Technical, Operational, Behavioral and economic feasibilities, cost and benefit analysis.

**UNIT -III**

System requirement specification and analysis: Fact finding techniques, Data Flow Diagrams, Data Dictionaries, process organization and interaction, Decision Analysis, Decision Trees and Tables. Top down and bottom up variance, Audit trails.

**UNIT -IV**

Detail Design: Modularization, module specification, file design, system development involving databases.

System control and quality assurance: Design objectives reliability and maintenance, software design and documentation tools, unit and integration testing, testing practice and plans, system control.

**Text & Reference Books:**

1. Awad, "System Analysis Design", Galgotia Publishing, Delhi.
2. Jamas, A.S., "Analysis and design of information systems", Mc Graw Hill.
3. Luteberg, M., Golkuhl, G and Hilsson, A, "Information System Development a Systematic Approach", PHI.
4. Leeson N., "System Analysis and Design", Science Research Associates, 1985.
5. Samprive, P.C., "System analysis: Definition Process and Design".

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Internet: Evolution of Internet, Internet Application, Network requirements, Bandwidth, Internet features (Electronic Mail, Newsgroups, FTP Archive, Real Time Activity, Video, Audio, Search Engine).

**UNIT-II**

World Wide Web: Definition, WWW Browsers, WWW Servers, Dial-Up SLIP, PPP Access, Dedicated line, ISDN.TCP/IP Connectivity- DNS Servers, Domain Names Registration process, IP addressing, Routing with TCP/IP Basics

**UNIT-III**

HTML: Text formatting, Data, Tables, Table layout, Images, HTML Interactivity, URLs, HTTP, NNTP, Hyperlinks, Menus & Image Maps, HTML Form, Embedded objects in HTML, Web Typography, Approaching Web Typography, Graphics and Type, Families and Faces, Type forms, Color and Type, Adding Graphics, Adding Graphics with the Image Element, Using images as links, Creating Image Maps, Working with Image Files, Layout Technology, Standard HTML Formatting, Tables, Frames,

**UNIT-IV**

CSS: Formatting your site with Cascading Style Sheets, Seeing Style Sheets in Action, Understanding CSSI's Advantages and Limitations, Making HTML and CSSI's, Making HTML and CSSI work together, Learning How CSSI Works, Using CSSI Properties. XML, XML Language, SMGL, Linking in XML.

**Text & Reference Books:**

1. Internet Get Started: BPB Publications.
2. Loren Buhle, "Webmaster Professional Reference", New Riders Publishing.
3. Rick Darnell "HTML 4", Techmedia.
4. Tauber, "Mastering Front Page 2000" BPB.
5. James Jaworski, "Making Java Script and JSCRIPT", BPB Publications.
6. HTML Complete: BPB Publisher.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT –I**

Introduction to Visual Studio: Features of Visual basic, Visual Basic applications, compile, run, Difference between Visual Basic and .NET languages.

Open, close existing project, possible menu variations, use the Form Designer, Code Editor, Solution Explorer, work with Visual Studio's windows.

Design a form: Add controls to a form, Set properties, common properties for forms and controls, add navigation features, property settings, use Document Outline view, name and save files of a project, Design and property settings for the form, Refer to properties, methods, events, Add code to a form, create an event handler for the default event of a form or control, code with a readable style, code comments, detect and correct syntax errors.

Use the toolbar buttons, collapse or expand code, print source code, code snippets, Smart Compile Auto Correction feature, My feature and debug a project.

**UNIT –II**

Work with numeric and string data: Work with the built-in value types- Declare and initialize variables, declare and initialize constants, code arithmetic expressions, code assignment statements, work with the order of precedence, use casting, change the type semantics, work with strings, declare and initialize a string, join and append strings.

Data types, use Visual Basic functions to convert data types, use methods to convert data types, formatting functions, use methods to convert numbers to formatted strings,

Code control structures: Code Boolean expressions, relational operators, logical operators, conditional statements, If statements, Select Case statements, loops, For loops, Do loops, use Exit and Continue statements, Debugging techniques for programs with loops.

**UNIT –III**

Code procedures and event handlers: Code and call procedures- Sub procedures, call Sub procedures, pass arguments by reference and by value, code and call Function procedures, work with events, start an event handler for any event, handle multiple events with one event handler, use the Code Editor to start an event handler, add and remove event writing.

The Function procedure, event handlers, Message box

Handle exceptions and validate data: Introduction to data validation and exception handling, use the IsNumeric function, display a dialog box for error messages, exception handling works, Use structured

exception handling, catch an exception, properties and methods of an exception, throw an exception, application with exception handling. Validate data: Validate a single entry, use generic procedures to validate an entry, validate multiple entries, application with data validation, dialog boxes, code, Difference between Validating event and masked text box.

## **UNIT IV**

Arrays and collections: one-dimensional arrays, create an array, assign values to the elements of an array, use For loops to work with arrays, use For Each loops to work with arrays, work with rectangular arrays, create a rectangular array, assign values to a rectangular array, work with rectangular arrays, create a jagged array, assign values to a jagged array, work with jagged arrays, use the Array class, refer to and copy arrays, code procedures that work with arrays, Work with list, sorted list, queues, stacks, array list.

Dates and strings: create a DateTime value, get the current date & time, format DateTime values, perform operations on dates and times, work with strings, procedures for validating user entries, Format numbers, dates, and times, Format numbers.

Types of controls, combo boxes, list boxes, check boxes, radio buttons, group boxes, use Tab Order view to set the tab order.

MultiForm projects: Add a form to a project, rename a form, change the startup form for a project, display a form as a dialog box, pass data between a form and a custom dialog box, Use the MessageBox0 Display a dialog box and get the user response, use the FormClosing event.

Debug an application: set the debugging options, break mode, use the Edit Continue feature, breakpoints, debugging windows, Locals window to monitor variables, use the Autos window to monitor variables, Watch windows to monitor expressions, Call Stack window to monitor called procedures, Output window to get build or debugging information.

### **Text & Reference Books:**

1. Anne Boehm, Mike Murach and Associates “Murach's Visual Basic 2008”, Publisher of Professional Programming.
2. Steven Holzner Visual Basic 6 programming, Black Book, Dream tech press

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT –I**

Operating System Concepts: Operating System Classification- Simple Monitor, Multi Programming, Time Sharing, Real Time Systems, Multiprocessor Systems, Batch Processing, Simple User, Multi User, Operating System Functions And Characteristics.

**UNIT –II**

Processor Management: Process Overview, Process States, Process State Transitions, Process Control Block, Operations On Processes, Suspend And Resume, Interrupt Processing, Scheduling Algorithms, Multiple Processor Scheduling.

Deadlock: Deadlock Problem, Deadlock, Deadlock Characterization, Necessary Conditions, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection, Recovery From Deadlock.

**UNIT –III**

Memory Management: Partition, Paging, Segmentation, Types Of Memory Management Scheme , Bare Machine, Resident Monitor, Swapping, Multiple Partition, Virtual Memory, Demand Paging.

**UNIT –IV**

File Management: File Types, Operation On Files, File Support, Access Methods, Sequential Access, Direct Access, Index, Allocation Method (Free Space Management, Contiguous, Linked, Indexed), Directory System Single-Level, Two-Level, Tree-Structured, File Protection.

**Text & Reference Books:**

1. James L. Peterson And Abraham Silberschatz, "Operating System Concepts", Addison Wesley Publishing Company.
2. H.M.Deitel, "Operating Systems", Addison Wesley Publishing Company.
3. A.M.Lister, "Fundamentals Of Operating Systems", Macmillan Publishers Ltd.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.



**UNIT-I**

e-Commerce: Definition, Framework, Architecture, benefits and Impact of e-Commerce, The Anatomy of e-Commerce application, e-Commerce Consumer applications, e-Commerce Organization Application, e-commerce in India, Prospects of e-Commerce.

**UNIT-II**

ConsumerOriented E-Commerce: ConsumerOriented applications, mercantile Process Models, consumer's perspective, Merchant's perspective. Advertising and marketing on the Internet: The new age information based marketing, Advertising on the Internet Active or pushbased advertising models, Passive or pull based advertising models. Guidelines for Internet advertising. Online marketing process.

**UNIT-III**

Types of Electronic Payment System: Digital tokenbased electronic payment systems, smart cards and electronic payment systems, credit cardbased electronic payment systems, Risk and electronic payment systems. Electronic data Interchange and its applications in business.

**UNIT-IV**

Securing the Business on Internet: security Policy, Procedures and Practices, transaction security, CRM, what is e-CRM, it's applications, The e-CRM marketing in India, Major Trends, Global Scenario for e-CRM, CRM utility in India.

**Text & Reference Books:**

1. Jeffrey F.Rayport & Bernard Jaworski: Introduction to E-commerce, TMH, 2003.
2. Kalakota & Winston: Frontiers of E-commerce, Pearson Education, Mumbai, 2002.
3. David Whiteley: E-Commerce- Strategy technologies and Applications, Tata Mac-Graw Hill, New Delhi, 2000.
4. C.S.V.Murthy: E-Commerce-Concepts, Models & Strategies, Himalaya Publishing house, Mumbai, 2003.
5. Kamallesh K Bajaj & Debjani Nag: E-Commerce, the Cutting Edge of Business- Tata McGraw-Hill, New Delhi, 2002.
6. Bharat Bhaskar: Electronic Commerce, Tata Mc-Graw-Hill, New Delhi, 2003.
7. Perry: E-Commerce, Thomson Publications, New Delhi, 2003.
8. Elias M.Awad: Electronic Commerce, Prentice-Hall India, New Delhi, 2002.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT –I**

Management Information System: Definition, Meaning and Role of Management Information System Introduction, Definition, System's Approach, Pitfalls in Management Information Systems.

Development of Organizational Theory: Management & Organizational Behaviour, Management, Information & System Approach.

**UNIT –II**

Data Processing: Operation of Manual Information System, Components of Computer System, Conversion of Manual to Computer Based Systems, Data Bank Concept, Types of Computer Based Applications.

Information System for Decision Making: Evolution of Information System, Decision Making & Management Information System.

**UNIT –II**

Strategic & Project Planning for Management Information System: Business Planning, Management Information System Responses, Management Information System Planning0 General & Details.

Conceptual System Design: Define Problem, Set System Objective, Establish System Constraints, Determine Information Needs & Sources, Develop Alternative Conceptual Design & Documentation, Prepare the Design Report.

**UNIT –IV**

Detailed System Design: Aim, Project Management, Define Subsystem, Input, Output & Process Design, System Testing, Software & Hardware selection, Documentation of Detailed Design.

**Text & Reference Books:**

1. Robert G. Murdick, Joel E. Ross, James R. Claggett, "Information System for Modern Management".
2. Surendra Basandra, "Computers Today".

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT – I**

Introducing .NET: Microsoft web development, Move from workstation to distributed computing, Internet factor, importance of .net platform OS neutral environment, device independence, wide language support, internet based component services.

.NET framework: Common language runtime(CLR), code management and execution, security support, error handling and garbage collection,.net framework class libraries System classes, data and XML classes, windows form and drawing classes, web classes.

Features of .NET framework: ASP.NET web forms and web services Web page authoring & server controls, ASP.NET infrastructure.

**UNIT – II**

VB.NET : Introduction, statement, lines, comments, operators, procedures, variables implicit, explicit, constants, parameters, arrays, branching, looping, objects, classes, inheritance, accessibility of inherited properties and methods, overriding methods.

System class, working with numbers, manipulating strings, DateTime arithmetic, converting values, formatting values, managing arrays.

Namespace and assemblies, Relating namespaces and DLL assemblies, creating assemblies, importing assemblies, using imported assemblies, compiling with imported namespace.

**UNIT – III**

ASP.NET Web Forms: Web forms code model, In-page vs. Code behind format, web form object life cycle, handling client side events on the server, web form event handling, define and respond web form control events, AutoPostBack property, automatic state management with web forms.

HTML sever control: definition, RunAt sever attribute, HTML control class, General controls-Anchor, image, form, division, span, Table control, Input Control.

Web server Control: Web Control class, General control- Hyperlink, link button, image, label, Panel, Form Controls, Table controls.

**UNIT – IV**

Web form List Control: Simple List controls, Template List controls.

Validation Controls: Definition, properties and methods of validation controls, validation controls RequiredFieldValidator, CompareValidator, RangeValidator, RegularExpressionValidator, CustomValidator, ValidationSummary.

User Controls: Definition, Markup Only User Control, Custom properties, handling events and loading user controls dynamically.

**Text & Reference Books:**

1. Michael Amundsen, Paul Litwin, "ASP.NET for developers", SAMS Publishing.
2. Bill Evjen, Scott Hanselman, Devin Rader, Farhan Muhammad, S. Srinivas Sivakumar, "Professional ASP.Net 2.0", Wiley India Edition.
3. Joe Duffy, "Professional .Net Framework 2.0", Wiley India Edition.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Frequency distribution, Histogram, Frequency Polygram, Arithmetic Mean, Median, mode, geometric Mean, Harmonic Mean, Dispersion, Measures of Dispersion, Coefficients of Dispersion.

**UNIT-II**

Probability, Addition and multiplication Theorems of Probability, Conditional Probability, Independent events Pointwise independent events.

**UNIT-III**

Mathematical expectation, Expected value of function of a random variable, Properties of expectation, Properties of variance, Covariance.

**UNIT-IV**

Correlation, Karl Pearson's Coefficient of correlation calculation of the correlation, coefficient for a biovariate frequency distribution, rank correlation.

**Text & Reference Books:**

1. Gupta, S.C. & Kapoor, V.K., Fundamental of Mathematical statistics, Sultan Chand & Sons.
2. Kapur, J.N. & Sarema, H.C., Mathematical Statistics, S. Chand & Company Ltd.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Introduction to Communication Network: Computer Networks, (Need, uses, and Advantages of Computer Network), Network Models (Peer-to-Peer Network, Server-based Network, Client-Server Network), Network components, Network Topology (Star, Ring, Bus, Mesh, Tree, Hybrid, Advantage and Disadvantage of each types.), Types of Networks (LAN, MAN, WAN), Internet (Brief History, Internet Today, Protocol and Standard .

**UNIT-II**

Error Detection and Correction: Types of errors (Single-bit error, Burst error), Error Detection (Redundancy, Parity check, CRC, Checksum), Error correction (FEC, Hamming code, Burst error corrections ) Data Communication Channel and Media, Conductive Media (Twisted-pair cable, Coaxial cable), Fiber optics (Characteristic of light, Types of Fiber optics), Wireless Transmission, (Microwaves, Infrared, Radio waves).

**UNIT-III**

OSI Reference Model: OSI Model, OSI Physical Layer Concepts, DLL, Network Layer, TL, SL, PL and AL Concepts. Internet model / TCP/IP Model and Protocols, Modem, DSL, Cable Modem, ISDN, Real world network (Ethernet, Ethernet operation, frame format, Ethernet characteristic, cabling and components) Token Ring and Token Bus networking Technology. Network Connectivity, Repeater, Hub-(Active, Passive and Intelligent), Bridge (Local, Remote and wireless), Routers (Static and Dynamic), switches and types of switches, Brouter and Gateways.

**UNIT-IV**

TCP/IP Protocol: Protocol Suite, Internet Architecture Board, TCP/IP Protocol (TCP, UDP, IP, ARP), concept of Physical Addressing, and logical Addressing, Different Classes of IP addressing, Special IP Addressing, Classful Addressing, Sub netting, Super netting, Classless addressing, TCP/IP Service Protocol (FTP, SMTP, TELNET, DNS).

**Text & Reference Books:**

1. Andrew S. Tahanbaum, Computer Network, PHI.
2. Behrowz A. Forouzan , Data Communication and Networking, Tata MacGraw Hill.
3. Ata Elahi, Mehran Elahi, “Data, Network and Internal communication Technology”, Cengage Learning India

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.



**UNIT-I**

Representation of numbers: Decimal to Binary conversion, Floating point representation of numbers, Integer and real/floating point arithmetic, different types of errors, error in the approximation of a function, error in series approximation.

**UNIT-II**

Solution of algebraic and transcendental equation using Bisection method, Regula-Falsi method, Newton-Raphson method.

Solution of simultaneous linear equations using Gauss Elimination method, Gauss-Jordon method, Jacobi's iterative method, Gauss-Seidel iterative method.

**UNIT-III**

Interpolation, Finite difference and operators, Newton Forward, Newton Backward, Gauss forward, Gauss backward.

**UNIT-IV**

Numerical differentiation: Differentiating a Graphical function, Differentiating a Tabulated function- Equal and Un-equal intervals, Numerical integration, Newton-Cotes formula, Trapezoidal rule, Simpson's  $1/3^{\text{rd}}$  and  $3/8^{\text{th}}$  rule, Weddle's rule.

**Text & Reference Books:**

1. B.S. Grewal, Numerical Methods in Engg & Science, Khanna Book Publishing Co., New Delhi.
2. R.S. Salaria, Computer Oriented Numerical Methods, Khanna Book Publishing Co., New Delhi.
3. V. Rajaraman, Computer Oriented Numerical Methods, PHI.
4. S.S. Sastry, Numerical Method, PHI.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT-I**

Introduction to Multimedia : Needs and areas of use, Development platforms for multimedia, Identifying Multimedia elements Text, Images, Sound, Animation and Video, Making simple Multimedia with PowerPoint. Concepts of plain & formatted text, RTF & HTML texts, Object Linking and Embedding concept.

**UNIT-II**

Sound: Sound and its Attributes, Mono V/S Stereo Sound, Sound Channels, Sound and its Effect In Multimedia, Analog V/S Digital Sound, Overview Of Various Sound File Formats On PC WAV, MP3.

**UNIT-III**

Graphics: Importance of Graphics in Multimedia, Vector and Raster Graphics, Image Capturing Methods Scanner, Digital Camera Etc. Various Attributes of Images Size, Color, Depth, Resolution etc, Various Image File Format BMP, DIB, EPS, PIC, and TIF Format Their Features and imitations, Basics of animation, Software Tools for animation.

**UNIT-IV**

Video: Basics of Video Analog and Digital Video, How to use video on PC. Introduction to graphics accelerator cards, Brief note on various video standards NTSC, HDTV, Introduction to video capturing Media & instrument Videodisk. Virtual Reality Terminology Head Mounts Display (HMD), Boom, Cave, Input Devices and Sensual Technology

**Text & Reference Books:**

1. Multimedia: Making it work (4th edition), Tay vaughan, Tata McGraw Hills.
2. Multimedia in action, James E Shuman, Vikas Publishing House.
3. Multimedia basics volume / technology, Andreas hoi zinger, firewall media (Laxmi Publications Pvt. Ltd) New Delhi.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT – I**

Introduction: Definition Of Computer Graphics And Its Applications, Video Display Devices, Raster Scan Displays, Random Scan Displays, Color CRT Monitors, Direct View Storage Tubes, Flat Panel Displays. Input Devices: Keyboard, Mouse, Trackball and Spaceball, Joysticks, Digitizers, Image Scanners, Touch Panels, Light Pens, Voice Systems.

**UNIT – II**

Output Primitives: Line Drawing Algorithms (DDA, Bresenhaus's ), Circle Generating Algorithm(Midpoint Circle Drawing Algorithm), Ellipse Generating Algorithm, Midpoint Ellipse Generating Algorithm, Character Generation.

**UNIT – III**

2D Transformations: Translation, Rotation, Scaling, Reflection, Shear, Composite Transformation0Translation, Rotations, Scaling. Two Dimensional Viewing: Window-To-Viewport Coordinate Transformation

**UNIT – IV**

Clipping: Introduction, Clipping Operations, Point Clipping, Line Clipping(Cohen-Sutherland Line Clipping, Liang-Barsky Line Clipping, Nicholl-Lee-Nicholl Line Clipping), Polygon Clipping(Sutherland-Hodgeman Polygon Clipping, Weiler-Atherton Polygon Clipping), Curve Clipping, Text Clipping.

**Text & Reference Books:**

1. Donald Hearn & M. Pauline Baker, "Computer Graphics." Prentice Hall India.
2. F. S. Hill Jr., "Computer Graphics", Macmillan Publishing Company.
3. David F. Rogers, "Procedural Elements for Computer Graphics", Tata MacGraw Hill.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**UNIT – I**

Software engineering: Evolving Role of Software, Software Engineering, Changing nature of Software, Software Myths, Terminologies, Role of management in software development Software Process and desired Characteristics.

Software Life Cycle Models: Build & Fix Model, Water Fall Model, Incremental Process Model, Evolutionary Process Models, Unified Process, Comparison of Models, Other Software Processes, Selection of a Model.

**UNIT – II**

Software Requirements Analysis & Specifications: Requirements Engineering, Types of Requirements, Feasibility Studies, Requirements Elicitation, Requirements Analysis Documentation, Validation and Management.

Software Architecture: Its Role, Views, Component & Connector View and its architecture style, Architecture Vs Design, Deployment View & Performance Analysis, Documentation, Evaluation.

**UNIT – III**

Function Oriented Design: Design principles, Module level Concepts, Notation & Specification, Structured Design Methodology, Verification  
Object Oriented Design: OO Analysis & Design, OO Concepts, Design Concepts, UML – Class Diagram, Sequence & Collaboration Diagram, Other diagrams & Capabilities, Design Methodology , Dynamic and Functional Modeling, Internal Classes & Operations.

**UNIT – IV**

Detailed Design: PDL, Logic/Algorithm Design, State Modeling of Classes, Verification: Design Walkthroughs, Critical Design Review, Consistency Checkers.

Coding: Programming Principles & Guidelines, Coding Process, Refactoring, Verification.

**Text & Reference Books:**

1. Pankaj Jalote, "An Integrated Approach to Software Engineering", 3<sup>rd</sup> Edition, Narosa Publishing House, 2005.
2. K.K. Aggrawal and Yogesh Singh, "Software Engineering", 3<sup>rd</sup> Edition, New Age International (P) Ltd, 2008.
3. Pressman, R.S., "Software Engineering – A Practitioner's Approach", 3<sup>rd</sup> Edition, McGraw Hills, 2008.
4. Mall Rajib, "Fundamentals of Software Engineering", PHI, New Delhi, 2005.

**Note:** In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt at least one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5010 parts, out of the entire syllabus. In all, five questions are to be attempted.

**HIMACHAL PRADESH UNIVERSITY**  
**SUMMER HILL, SHIMLA-171005.**

Out line of PGDCA. Course (1 year)- two semester and scheme of examination. (Effective from 2002 onwards)

**SEMESTER –I**

<b>Course Code</b>	<b>Paper</b>	<b>Max. Marks Theory</b>	<b>Internal Assess.</b>	<b>Exams. Duration (Hrs.)</b>
DCS-101	Fundamentals of Programming Using C	75	25	3
DCS-102	PC Software	75	25	3
DCS-103	Operating system	75	25	3
DCS-104	Computer Organization and Architecture	75	25	3
DCS-105	Practical-I ( C Language)	50	50	3
DCS-106	Practical-I I (PC Software)	50	50	3

**SEMESTER –II**

DCS-201	Data and File Structure	75	25	3
DCS-202	System Analysis and Design	75	25	3
DCS-203	Object Oriented Programming & C ++	75	25	3
DCS-204	Data base Management system	75	25	3
DCS-205	Practical-III (DFS Using C ++	75	25	3
DCS-206	Practical-IV (Data base Management system)	75	25	3
DCS-207	Project Work	200	-	-

The project should be involve development of application software for some industry/ Institute

## DCS – 101 Fundamentals of Programming Using C

### PART-A

Programming Tools: Problem analysis, Program constructs (sequential, decision, loops), Algorithm, Flowchart, Pseudo code, Decision table, Modular programming, Top Down and Bottom up approaches, Concept of High Level Languages, Low Level Languages, Assembly Languages, Compiler, Interpreter, Type of errors.

Overview of C: General structure of C Program.

Data types, Operators and expressions: Constants and Variables, Data types, Declaring Variables, Storage Classes, Different types of expressions and their Evaluation, Conditional Expression, Assignment statement, Enumerated data type, Redefining/Creating data types, Library functions, Type casting.

Input/Output: Unformatted and formatted I/O Functions (Character and strings I/O, *Scanf()*, *Printf()*)

Control Statements: Decision making using *if*, *if-else*, *elseif* and *switch* statements, Looping using *for*, *while* and *do-while* statements, Transferring Program controlling *break* and *continue* statements, Programming examples to illustrate the use of these control statements.

### PART-B

Pointers: Definition, Need of pointers, declaring Pointers, Accessing Values via Pointers, Pointer arithmetic, Types of pointers.

Array & strings: Introduction to arrays, Declaring arrays, Initializing arrays, Processing arrays, Pointers to arrays, Passing arrays as arguments to functions, Introduction to strings, Pointers to strings, Passing strings and Arrays of strings as arguments to a function, Programming examples to illustrate the use of arrays and strings.

Functions: Defining a function, Local variables, *return* statement, invoking a Function, specifying and passing arguments to a function, Functions returning non Integer, External, static, and register variable, block structure, initialization and recursion.

Structures: Declaring a structure type, Declaring Variables of structure type, Initializing Structures, Accessing Elements of structures, arrays of structures, nested structures, Pointers to structures.

### Text Books:

1. Mullis Cooper: Spirit of C: Jacob Publications
2. Yashwant Kanetkar: Let us C: BPB

### Reference Books:

1. Kerninghan B.W. & Ritchie D. M.: The C Programming Language: PHI
2. Yashwant Kanetkar: Pointers in C: BPB
3. Gotterfied B.: Programming in C: Tata McGraw Hill

### **Note:**

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be compulsory covering the entire syllabus of at least 5 parts.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.

## DCS ó 102 PC SOFTWARE

### PART-A

Operating system concept: Duties, Responsibilities and functions of an Operating system, General understanding of different Operating System Environment (Single user system, Multi user system, Graphical user interface system, character based system).

Disk Operating System: Concept of Files and Directories, Internal commands, External commands, Batch Files, Filters, Redirection, Macros, Wild Card character Booting Process, Configuration Files (Config.Sys)

General Understanding Of Facilities, Features Of Windows Explorer, Control Panel Setting, Accessories, Recycle Bin.

Computer Virus: Prevention, Detection, Cure.

### PART-B

Word Processing Concepts: Definition, Benefits, Facilities & Features in general.  
MS- Office 97:

MS-Word 97: Word processing using MS-WORD, File handling, Editing, Formatting, spell checking, Mail merge & Table handling & Insertion, importing, exporting & object linking embedding, printing operation.

Spreadsheet: features, uses & benefits in general.

MS-Excel 97: Entering data & selecting cells, editing worksheet data, formatting worksheet, creating Formulae, function & charts /graphs, multi operation, data base management.

Presentation Tools: features, uses & benefits in general.

MS Power Point: Creating & saving presentation templates & view (slide view, notes view, outline view, slide show) Formatting text, slides & graphs, animations, slides transition, multi operation.

### Text Books:

1. A.L.STEVENS: Teach Yourself Windows.
2. A.L.STEVENS: Teach Yourself DOS.
3. JONATHAN KAMIN: DOS-7.
4. R.K.TAXALLI: Intro to software package, Galgotia publication.
5. RAJIV MATTUS: dos quick reference , Galgotia .
6. RAJIV MATTUS: Learning Word 97 for windows step by step BPB publication.
7. RAJIV MATTUS: Learning Excel 97 for windows step by step BPB publication
8. RAJIV MATTUS: Learning window 98 step by step BPB publication
9. LONNIE .E. MOSELEY& DAVID M.BOODEY: Mastering office 97.
10. MICRO SOFT OFFICE 97: Unleashed : Techmedia.
11. JOHN WALKEN BACH: Excel 97

### Note:

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be compulsory covering the entire syllabus of at least 5 parts.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.



## DCS ó 103 OPERATING SYSTEM

### PART-A

Introduction: Definition Of The Operating System, Functions Of An Operating System, Different Types Of Systems - Simple Batch System, Multi-Programmed Batched System, Time Sharing System, Personal Computer Systems, Parallel Systems, Distributed Systems, Real Time Systems.

Process Management: Process- Process Concept, Process Scheduling, Operation On Processes, Cooperating Processes, Threads, Inter-Process Communication, CPU Scheduling scheduling criteria, scheduling algorithms ó FCFS, SJF, priority scheduling, round robin scheduling, multilevel queue scheduling, multilevel feedback queue scheduling, multiple processor scheduling, real time scheduling.

Deadlocks: Deadlock Characterization, Methods For Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection, Recovery From Deadlock.

### PART-B

Memory Management: Logical & physical address space, Swapping, Continuous Allocation (single partition, multiple partition), internal, external fragmentation, Paging, Segmentation, Segmentation With Paging, Virtual Memory, Demand Paging, Performance Of Demand Paging, Page Replacement, Page Replacement Algorithmsó FIFO, optimal, LRU, LRU approximation algorithms, counting algorithms Thrashing, Demand Segmentation.

File System Interface: File Concept, Access Methodsósequential, direct, index, Directory Structureósingle-level, twoólevel, tree-structured, acyclic-graph, general graph.

File System Implementation: File System Structure, Allocation Methods-contiguous allocation, linked allocation, indexed allocation, Secondary Storage Structure: Disk Structure, Disk Scheduling, FCFS, SSTF, SCAN, C-SCAN, Look Scheduling, Selection of A Scheduling Algorithm, Disk Management-disk formatting, boot block, bad blocks.

#### **Text Books:**

1. Silberschatz, Galvin õOperating System Conceptsö, Addison Wesley Publishing Company, 1989.

#### **Reference Books:**

1. William Stallings, õOperating Systemsö, Macmillan Publishing Company.
2. Deitel H.M., õAn Introduction To Operating Systemö, Addison Wesley Publishing Company, 1984.
3. Tanenbaum, A.S., õModern Operating Systemö, Prentice Hall of India Pvt. Ltd. 1995.

#### **Note:**

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be an objective/short answer type question.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.

## DCS 6104 COMPUTER ORGANISATION and ARCHITECTURE

### PART-A

Basics: Organization & Architecture, Structure & Function, A brief history, mechanical & electromechanical ancestors, First, Second, Third & later generations, Van-Neumann Machine, Block diagrams of computer system.

Register transfers & micro-operations: Register Transfer Language, Register transfer, Bus & memory transfers, Arithmetic loops, Logic loops, Shift loops, Arithmetic, logic, shift unit.

Basic computer organization & design: Instruction codes, Computer registers, Computer Instructions, Timing & Control, Instruction cycle, memory reference instruction, I-O interrupt, Design of basic computer, Design of accumulator logic.

Micro-programmed Control: Control Memory, Address sequencing, Design of control unit.

Central Processing Unit: General Register Organization, Stack organization, Instruction formats (zero, one, two, three), Address Instructions, Addressing Modes (direct, indirect, Immediate, relative, indexed), Data transfer & manipulation, Program control, RISC.

Computer Arithmetic: Addition & Subtraction, Multiplication algorithms, Division Algorithms, Floating point arithmetic operations,

### PART -B

IO Organization: Peripheral devices, I/O interfaces, asynchronous data transfer, Modes of Data transfer, Priority Interrupts, DMA, I-O processors, Serial Communication.

Memory Organization: Memory Hierarchy, Main Memory, Associative Memory, Cache Memory, Virtual Memory, Memory management hardware.

Multiprocessors: Characteristics, Interconnection structures: Time shared, Common bus, Multi-port, Crossbar switch, Multistage, Inter-processor arbitration, Inter-processor communication & synchronization, cache coherence, multiprocessing, vector computation, Fault tolerant systems.

RISC: Instruction execution characteristics, Use of large register files, Computer based Register optimization, Reduced instruction set architecture, RISC pipeline.

### Text Books:

1. Morris M. Mano: Computer System & Architecture: PHI.
2. Stallings & Williams: Computer Organization & Architecture: Maxwell Macmillan.

### Reference Books:

1. V.Rajaraman & Radhakrishnan: Introduction to Digital Computer Design: PHI
2. P.Pal Chowdhary: Computer Organization & Design: PHI

### Note:

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be compulsory covering the entire syllabus of at least 5 parts.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.

**PART - A**

Preliminaries: Concept & notation, common operation on data structures, algorithm complexity, time-space trade off between algorithm, physical & logical representation of different data structures.

Arrays: Arrays defined, representing arrays in memory, Various operation (traversal, insertion, deletion), Multidimensional arrays, Sequential allocation, Address calculation, Sparse arrays.

Linked List: Definition, type (linear, circular, doubly linked, inverted), representing linked lists in memory, advantages of using linked list over arrays, various operations on Linked list (traversal, insertion, deletion).

Stacks: Definition & concepts of stack structure, Implementation of stacks, Operation on stacks (push & pop), Application of stacks (converting arithmetic expression from infix notation to polish and their subsequent evaluation), quick sort technique to sort an array, recursion).

**PART – B**

Queue: Definition & concept of queues, implementation of queue, operation on queues (insert & delete), Type of queues (circular queue, priority queue).

Trees Structures: Tree, Binary Trees, Tree Traversal Algorithms (Pre-Order, In-Order, Post-Order), Threaded Trees, Trees in various Sorting & Searching Algorithms & their Complexity (Heap Sort, Binary Search Trees).

Sorting & Searching: Selection sort, Bubble sort, Merge sort, Radix sort, Quick sort, Sequential search, Linear search and their complexity.

**Text Books:**

1. Jean Paul Tremblay & Paul G. Sorenson: An Introduction to Data Structures with Applications: Tata McGraw Hill.
2. Aaron M. Tenenbaum, Yedidyah Langsam, Moshe J. Augenstein: Data Structures using C: PHI

**Reference Books:**

1. Robert L. Kruse: Data Structures & Program Design: PHI
2. Aho, Hopcroft & Ullman: Data Structures and Algorithms: Addison Wesley.
3. T.A. Standish: Introduction to Data Structures.
4. Nell Dale & Susan C. Lilly: Pascal Plus Data Structures, Algorithms and Advanced Programming: Galgotia.

**Note:**

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be compulsory covering the entire syllabus of at least 5 parts.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.

## **DCS – 202     SYSTEM ANALYSIS AND DESIGN**

### **PART-A**

Overview of system analysis and design, Business systems concepts, systems development life cycle, project selection, feasibility analysis, design, implementation, testing and evaluation.

Project Selection: Source of project requests, managing project review and selection, preliminary investigation.

Feasibility Study: Technical and economic feasibilities, cost and benefit analysis.

System requirement specification and analysis: Fact finding techniques, Data flow diagrams, data dictionaries, process organisation and interactions, Decision analysis, decision trees and tables.

### **PART-B**

Detailed Design: Modularisation, Module Specification, File Design, System Development Involving Data Basis.

Systems control and Quality Assurance: Design objectives, reliability and maintenance, software design and documentation tools, topdown, bottomup and variants. Units and integration testing, testing practices and plans. System controls, Audit trails.

System Administration and Training, conversion and Operating Plans.

Hardware and software selection, Hardware acquisition, memory, processes, peripherals, bench-marking, vendor selection, software selection, operating systems, languages processes, performance and acceptance criteria.

### **Reference Books:**

1. James, A.S. : Analysis and Design of Information Systems, McGraw Hill, 1986.
2. Ludeberg, M., Gulkohl, G. & Hilsson, A.: Information Systems Development: A Systematic Approach, Prentice Hall Intern. 1981.
3. Lesson, M.: Systems Analysis and Design, Science research Associates, 1985.
4. Semprive, P.C. : System Analysis: Definition, Process and Design, 1982.

### **Note:**

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be compulsory covering the entire syllabus of at least 5 parts.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.

## **DCS - 203    Object Oriented Programming & C<sup>++</sup>**

### **PART-A**

Object oriented programming: Need for OOP, the project oriented approach, characteristics of OOP language-objects, classes, Inheritance, Reusability, Polymorphism, overloading advantage of OOP, the relationship between C and C<sup>++</sup>.

Programming Basic- Basic program construction, output using cout, preprocessor directive, comments, integer variables, character variables, input with cin type float manipulator, type conversion, arithmetic operators, relational operators, loops and decision: loop- for, while, do, decision-if, if- else, switch, conditional operator, logical operator-AND, OR, NOT, other control statements-break, continue, goto.

Structures and functions: structures, Accessing structure members, structure within a structure, Enumerated Data type, simple functions, passing arguments to functions, Returning values from functions, reference arguments, overloaded functions, variable and storage class.

### **PART-B**

Objects and classes: A simple class, classes and objects, specifying a class, using a class, C<sup>++</sup> objects as physical objects, C<sup>++</sup> objects as data types. Constructors, objects as function arguments, returning objects from functions.

Arrays: Array fundamental-defining array, array elements, Accessing array elements, Initializing arrays, multidimensional arrays, passing arrays to functions, array of objects, strings-string variables, Avoiding Buffer overflow, string constants, array of strings string as class members.

Operator overloading: Overloading unary operators-the operator keyboard, operator arguments, operator return values nameless temporary objects, limitation of increment operators, overloading Binary operators, data conversion, Pitfalls of operator overloading and conversion.

Inheritance: Derived class and base class, specifying the derived class, accessing base class, members, derived class constructors, overriding member functions, class hierarchies, public and private Inheritance, levels of inheritance, multiple inheritance.

#### **Text Book:**

1. Robert Lafore, "Object oriented programming in Turbo C<sup>++</sup>". Galgotia Publications.

#### **NOTE:**

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be an objective/short answer type question.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.

## **DCS – 204     DATABASE MANAGEMENT SYSTEMS**

### **PART-A**

Basic Concepts, Data Modeling for a Database, Records and Files, Abstraction and Data Integration, The Three-Level Architecture Proposal for DBMS, Components of a DBMS, Advantages and Disadvantages of a DBMS.

Data Models, Data Associations, Data Models Classification, Entity Relationship Model, Relational Data Model, Network Data Model, Hierarchical Model.

The Relational Model, Relational Database, Relational Algebra, Relational Calculus.

Relational Database Manipulation, SQL, Data Manipulation, Basic Data Retrieval, Condition Specification, Arithmetic and Aggregate Operators, SQL Join: Multiple Tables Queries, Set Manipulation, Categorization, Updates, Views: SQL, QUEL, Data Definition, Data Manipulation; QUEL, Condition Specification, Renaming, Arithmetic Operators, Multiple Variable Queries, Aggregation Operators in QUEL, Retrieve into Temporary Relation, Updates, Views.

### **PART-B**

Relational Database Design, Relational Scheme and Relational Design, Anomalies in a Database: A Consequence of Bad Design, Universal Relation, Functional Dependency, Relational Database Design.

Concurrency Management, Serializability, Concurrency Control, Locking Scheme, Timestamp-Based Order, Optimistic Scheduling, Multiversion Techniques, Deadlock and Its Resolution.

Database Security, Integrity, and Control, Security and Integrity, Threats, Defense Mechanisms, Integrity .

### **Text Books:**

1. Desai, B., "An Introduction To Database Concepts," Galgotia Publications, New Delhi.

### **Reference Books:**

1. Date C.J., "An Introduction to Database Systems," Narosa Publishing House, New Delhi.
2. Elimsari And Navathe, "Fundamentals of Database Systems," Addison Wesley, New York.
3. Ullman, J.D , "Principals Of Database Systems," Galgotia Publications, New Delhi.

### **Note :**

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for written semester examination and 25 for internal assessment).
2. In all 8 question will be set three from PART -A and four from PART - B of the syllabus. Question no. 8 will be an objective/short answer type question.
3. Examinees will attempt five questions in all. Two each from PART-A and PART-B. Question no. 8 will be compulsory.