

Roll No.

Total No. of Questions : 9] [Total No. of Printed Pages : 4
(2042)

**B.C.A. (CBCS) RUSA IVth Semester
Examination**

3750

SYSTEM ANALYSIS AND DESIGN

Paper : BCA-0403

Time : 3 Hours]

[Maximum Marks : 70

Note :- Attempt *five* questions in all, selecting at least *one* out of two from each Unit. All questions carry equal marks. Question No. 1 is compulsory.

Unit-I

(Compulsory Question)

1. (A) True *or* False :

- (i) Feasibility study determines whether the project should go further. *F*
- (ii) System analysis is a process which is done on existing model or newly created model. *T*
- (iii) The process of transforming a model into source code is known as Reverse Engineering. *F*

- (iv) Requirement gathering is the detailed study about a particular problem. ✓
- (v) Decision tree uses rules and actions for demonstration. ✓

(B) Multiple Choice Questions :

- (vi) Documentation is prepared :
 - (a) At system design
 - (b) At system analysis
 - (c) At every stage ✓
 - (d) At system development
- (vii) Actual programming of software code is done in Phase of SDLC.
 - (a) Analysis
 - (b) Implementation ✓
 - (c) Design
 - (d) Testing
- (viii) Which of the following is not the symbol of DFD ?
 - (a) Square
 - (b) Triangle ✓
 - (c) Open rectangle
 - (d) Circle

(ix) Decision table is :

- (a) A way of representing multiple conditions
- (b) A way to get an accurate picture of the system
- (c) A way of representing the information flow
- (d) All of these

(x) Enhancement, bug fixes, upgradation of software are done during the phase of SDLC.

- (a) Analysis
- (b) Maintenance
- (c) Implementation
- (d) Testing

(C) Short Answer Type Questions :

- (i) Discuss integration testing.
- (ii) Discuss top down approach to system planning.
- (iii) Define operational feasibility study.
- (iv) Maintenance is an ongoing process. Discuss.
- (v) What are the qualities to be manifested for a System Analyst ?

Unit-II

2. Explain SDLC in detail.
3. What are the various sources of requests for initial investigation of a project ?

Unit-III

4. What considerations are involved in feasibility analysis ? Which consideration do you think is most crucial ? Why ?
5. Define and explain the procedure if cost/benefit determination.

Unit-IV

6. What are the different tools for gathering information ?
7. "A data dictionary is a structured repository of data about data." Discuss.

Unit-V

8. Why do we Test System? How is important testing ? Discuss.
9. Why is documentation necessary in every step of project development ?

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Roll No. ..

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**B.C.A. (CBCS) RUSA IVth Semester
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4212

SYSTEM ANALYSIS AND DESIGN

Paper : BCA-0403

Time : 3 Hours]

[Maximum Marks : 70

Note :- Attempt five questions in all, selecting one question from each Unit. All questions carry equal marks. Question No. 1 is compulsory.

Unit-I

(Compulsory Question)

1. (A) True or False :

- (i) Top down integration testing uses stubs. *x*
- (ii) Software maintenance cost is expensive in comparison to software development. *x*
- (iii) The audit trail is test data used by the system auditor.

A-748

(1)

Turn Over

- (iv) Flow of information in an organization is always vertical. *
- (v) In the analysis phase, the development of the program specification occurs, which is a clear statement of the goals and objective of the project. ✓

(B) Multiple Choice Questions :

(vi) Decision tree uses :

- (a) Nodes and branches.
- (b) Consequences of various alternates
- (c) Rules and actions
- (d) Pictorial deputation of conditions

(vii) What is the major goal of System Analysis and Design ?

- (a) Improve organizational system
- (b) Communication
- (c) Give instructions
- (d) Architecture of building

CA-748

(2)

(viii) The determines whether the project should go forward.

- (a) Requirement gathering
- (b) Maintenance
- (c) Feasibility study .
- (d) Testing

(ix) During system study, data can be collected through :

- (a) Questionnaires
- (b) On site observations
- (c) Interviews
- (d) All of these

(x) In the maintenance Phase the product must be tested against previous test cases. This is known as testing.

- (a) Unit
- (b) Alpha
- (c) Regression
- (d) Integration

(C) Short Answer Type Questions :

- (i) What is a Design Document ?
- (ii) What is Economic Feasibility ?

1×10=10

CA-748

(3)

Turn Over

(iii) Discuss the role of Database Administrator.

(iv) What is Data Dictionary ?

(v) What is the need of system maintenance ?
4×5=20
10 each

Unit-II

2. Explain the multi-faceted role of the Analyst.
3. Throw some light on the issues that are to be kept in mind while project selection.

Unit-III

10 each

4. Describe the various steps in Feasibility Analysis.
5. Distinguish between initial investigation and feasibility study. In what way are they related ?

Unit-IV

10 each

6. Explain decision trees and tables in detail. Use an example of your own illustration
7. What do you mean by levelling in DFDs ? Explain with the help of an example.

Unit-V

10 each

8. Discuss the concept of modularization. What are the various module specification ?
9. Distinguish between system maintenance and enhancement.

Roll No.

Total No. of Questions : 9]
(2034)

[Total No. of Printed Pages : 7

**B.C.A. (CBCS) RUSA IVth Semester
Examination**

3775

SYSTEM ANALYSIS AND DESIGN

Paper : BCA-0403

Time : 3 Hours]

[Maximum Marks : 70

Note :- Attempt *five* questions in all, selecting *one* question from each Part-B, C, D and E. Question No. 1 (Part-A) is compulsory.

Part-A

(Compulsory Question)

1. (A) Following questions carry 1 mark each :

(i) is an important factor of management information system.

(a) System

(b) Data

(c) Process

(d) All of these

CH-575

(1)

Turn Over

(ii) In a DFD external entities are represented by a :

- (a) Rectangle
- (b) Ellipse
- (c) Diamond shaped box
- (d) Circle

(iii) After the design phase the document prepared is known as

- (a) System specification
- (b) Performance specification
- (c) Design specification
- (d) None of these

(iv) A data flow can :

- (a) Only emanate from an external entity
- (b) Only terminate in an external entity
- (c) May emanate and terminate in an external entity
- (d) May either emanate or terminate in an external entity but not both

(v) The data Flow Diagram is the basic component of system.

- (a) Conceptual
- (b) Logical
- (c) Physical
- (d) None of these

(vi) A computer-based information system :

- (a) May require some tasks to be done manually
- (b) Should not have any manual tasks
- (c) Is always fully automated
- (d) May use only computers

(vii) By operational feasibility we mean :

- (a) The system can be operated nicely
- (b) The system is unusable by operators
- (c) The system can be adapted by an organization without major disruptions
- (d) The system can be implemented

(viii) By technical feasibility of a solution we mean that :

- (a) Technology is available to implement it
 - (b) Persons have technical ability to implement it
 - (c) Persons are available to implement it
 - (d) Funds are available to implement it
- (ix) A solution is said to be feasible for implementation if :
- (I) It is cost-effective and finance is available to implement it
 - (II) Technology is available to implement it
 - (III) It can be adapted to work in an organization's environment

(IV) It has been implemented in another organization

- (a) (II) and (III)
 - (b) (I), (II) and (III)
 - (c) (I) and (IV)
 - (d) (I), (II) and (IV)
- (x) In the Analysis phase, the development of the occurs, which is a clear statement of the goals and objectives of the project.
- (a) Documentation
 - (b) Flowchart
 - (c) Program specification
 - (d) Design 1×10=10
- (B) Write short answers for the following questions
- (i) What is software crises ? What are the factors responsible for that ?

