

Roll No.

Total No. of Questions : 9]
(2042)

[Total No. of Printed Pages : 7

UG (CBCS) IInd Year Annual Examination
2128

B.A. COMPUTER APPLICATION
(Database Management System)
(Common with B.Sc. Physical Science DSC-2D)
Paper : COMP-202 TH

Time : 3 Hours]

[Maximum Marks : 50

Note :- Attempt *five* questions in all. The entire Unit-I is compulsory. Select *one* question each from Units-II, III, IV and V.

Unit-I

(Compulsory Question)

1. (i) Which of the following is data model ?
- (a) Entity Relationship Model

CH-847

(1)

Turn Over

- (b) Relational Data Model
- (c) Object-based Data Model
- (d) All of these ✓

(ii) Metadata is known as data about data.

- (a) True ✓
- (b) False

(iii) Which of the following is the element of the database ?

- (a) Data
- (b) Constraints and schema
- (c) Relationship
- (d) All of these ✓

(iv) SQL stands for

CH-847

(2)

(v) The external schema defines how and where data are organised in physical data storage.

(a) True

(b) False ✓

(vi) A table can have only one primary key.

(a) True ✓

(b) False

(vii) Tuples are also known as columns of table.

(a) True

(b) False ✓

(viii) A functional dependency is a :

(a) Many-to-many relationship between two sets of attributes

(b) One-to-one relationship between two sets of attributes ✓

CH-847

(3)

Turn Over

- (c) Many-to-one relationship between two sets of attributes
- (d) None of these
- (ix) 1NF contains no redundant information.
- (a) True ✓
- (b) False
- (x) In 3NF, no non-prime attribute is functionally dependent on another non-prime attribute.
- (a) True ✓
- (b) False
- 1×10=10

Unit-II

2. (a) Explain the various advantages and disadvantages of database management system.
- (b) Define the term data models. Also explain relational data model. 6,4

Or

3. (a) Describe the three tier architecture of database with diagram.

CH-847

(4)

TAB-110

- (b) Explain the following terms :

- (i) Network Data Model
- (ii) Data Independence 6,4

Unit-III

4. (a) Explain the following terms :

- (i) SQL
- (ii) Constraints

- (b) Discuss the basic concept of ER-model. 4,6

Or

5. (a) What do you mean by Entity and Relationship ? Explain.

- (b) Explain the following SQL commands :

- (i) CREATE
- (ii) SELECT

5,5

CH-847

(5)

Turn Over

Unit-IV

6. (a) What is the difference between Join and Outer Join operator ?
- (b) Explain the following terms :
- (i) Cardinality
 - (ii) Tuple
 - (iii) Attributes
- 4,6

Or

7. (a) Discuss the various relational constraints in detail.
- (b) Explain the following terms :
- (i) Project
 - (ii) Cartesian product
 - (iii) Difference
- 4,6

CH-847

(6)

Unit-V

8. (a) Explain how ER model can be converted into relations ?
- (b) Explain the concept of full functional dependency. 5,5

Or

9. (a) Define 1NF, 2NF and 3NF.
- (b) Explain the need for normalising data. 6,4

CH-847

(7)