

C 25628

(Pages : 2)

Name.....

Reg. No.....

**FOURTH SEMESTER B.Sc. DEGREE (SUPPLEMENTARY) EXAMINATION
APRIL 2017**

(UG—CCSS)

Computer Science

CS 4B 07—FUNDAMENTALS OF DATABASE MANAGEMENT SYSTEM

(2012 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Answer *all twelve* questions :

- 1 A view of database that appears to an application program is known as _____.
- 2 The data model which describes how the data is actually stored is _____.
- 3 The number of entities to which another entity can be associated via a relationship set is expressed as _____.
- 4 A top-to-bottom relationship among the items in a database is established by a _____.
- 5 The syntax of user query is verified by _____.
- 6 _____ are the properties of entities.
- 7 In a relational database a referential integrity constraint can be specified with the help of _____.
- 8 _____ command is used to add a column to an existing table.
- 9 Prevention of access to the database by unauthorized users is referred to as _____.
- 10 _____ transaction state is normally used to recover from transaction failure.
- 11 In an object-oriented model, one object can access data of another object by passing _____.
- 12 An abstraction concept for building composite object from their component object is called _____.

(12 × ¼ = 3 weightage)

II. Answer *all nine* questions :

- 13 What is a Database ?
- 14 What do you mean by data independence ?
- 15 Define the "integrity rules" ?

Turn over

- 16 What are the advantages of DBMS ?
- 17 Write the syntax of SELECT command with an example.
- 18 Briefly explain the term concurrency control.
- 19 Define a Relation Schema and a Relation.
- 20 What are the unary operations in Relational Algebra ?
- 21 What is normalization ?

(9 × 1 = 9 weightage)

III. Answer any *five* questions :

- 22 What is the difference between procedural and non-procedural languages ?
- 23 Describe the privileges recognized in SQL.
- 24 Give SQL statement which creates a STUDENT table consisting of following fields. Name CHAR (40), Reg.No Number (4), Course CHAR (6), Marks Number (4), Grade CHAR(1).Set Reg.No as Primary key and insert 3 records into the table.
- 25 Why is BCNF better than 3NF ?
- 26 What is view ? How to create a view ? Give the syntax.
- 27 Explain the transaction states in detail.
- 28 Describe ACID properties of transaction.

(5 × 2 = 10 weightage)

IV. Answer any *two* questions :

- 29 (a) Explain the Database System Environment.
(b) Why concurrency control is needed ? Mention the problems.
- 30 Explain Entity Relationship Model with an example.
- 31 (a) Briefly explain about main concepts used in Object Oriented Databases.
(b) Write a short note on :
 - (i) Composite attribute.
 - (ii) Derived attribute.

(2 × 4 = 8 weightage)