

Code No. : 20998

Sub. Code : GMCS 00
GMSE 00

B.Sc. (CBCS) DEGREE EXAMINATION,
APRIL 2018.

Sixth Semester

Computer Science — Main

RELATIONAL DATABASE MANAGEMENT SYSTEM

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. An _____ is any condition that the database must always satisfy

- (a) Assertion
- (b) Authorization
- (c) Dependency
- (d) Inconsistency

_____ stores meta data about the structure of the database

- (a) Data manager
- (b) E-R model
- (c) Data dictionary
- (d) Data file

The result of _____ contains all pairs of tuples from the two relations regardless of whether their attribute values match

- (a) Union
- (b) Set
- (c) Intersection
- (d) Cartesian product

The _____ clause is a predicate involving attributes of the relation in the from clause

- (a) Where
- (b) Select
- (c) From
- (d) Having

A sub query which returns only one tuple containing a single attribute

- (a) Nested
- (b) Scalar
- (c) Parallel
- (d) Co-related

The _____ clause is used to ensure that attribute values satisfy specified conditions

- (a) Check
- (b) Unique
- (c) Where
- (d) Group By

7. In E.R diagram _____ indicate the participation of an entity in the relationship set.

- (a) Diamond (b) Double diamond
(c) Dashed lines (d) Double lines

8. _____ are used to decompose a relation into 3 NF.

- (a) BCNF
(b) Canonical Covers
(c) Normalization
(d) None

9. The _____ statement is used to modify or update an already existing row of a table

- (a) Modify (b) Update
(c) Delete (d) Drop

10. Which of the following can initiate a trigger?

- (a) Insert (b) Update
(c) Delete (d) All the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

i) (a) What is data model? How it is classified? Explain.

Or

(b) Discuss the functions of DBA.

ii) (a) With example, explain the structure of relational database.

Or

(b) What is SQL? Explain its various parts.

iii) (a) With example, explain rename operation.

Or

(b) Write a short note on roles.

iv) (a) Describe mapping and participation constraints.

Or

(b) Discuss the algorithm to compute the closure of attribute sets.

15. (a) How to create and modify views? Give examples.

Or

- (b) What is trigger? Explain different types of triggers

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Write in detail about database languages

Or

- (b) Explain the database architecture with a block diagram.

17. (a) Explain various relational operations.

Or

- (b) How to define SQL relations? Explain with an example.

18. (a) Explain set operations with examples.

Or

- (b) Explain

- (i) Constraints on a single relation
- (ii) Referential integrity.

19. (a) Examine the design issues of Entity-relationship.

Or

(b) What is BCNF? How to test for BCNF? Explain BCNF decomposition algorithm.

20. (a) What is sequence? Explain elaborality with example.

Or

(b) What is package? How to create package? Write a sample PL/SQL code to create a package.
