(6 pages) Reg. No. : .....

Code No. : 41396 E **Sub. Code : SMCS 43**

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2019.

Fourth Semester

Computer Science — Main

RELATIONAL DATABASE MANAGEMENT SYSTEM

(For those who joined in July 2017 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. _____ ensures that the database remains consistent.
   (a) File manager
   (b) Transaction manager
   (c) Buffe manager
   (d) All the above

2. _____ level abstraction describe what data are stored in the database.
   (a) Physical level
   (b) Logical level
   (c) View level
   (d) All the above

3. _____ is a set of attributes that taken collectively, allow us to identify uniquely a tuple in the relation.
   (a) Super key (b) Primary key
   (c) Candidate key (d) None of the above

4. _____ command is used to add attributes to an existing table.
   (a) Altar table (b) Drop table
   (c) Modify table (d) None of the above

5. _____ is used to remove spaces at the end of the string.
   (a) Trim (b) Escape
   (c) Truncate (d) None

6. _____ clause is used to eliminate the duplicate tuples.
   (a) all (b) as
   (c) distinct (d) none

7. The relationship between superclass and subclass is a ———— relationship.

(a) one-to-one (b) one -to-many

(c) many-to-one (d) all the above

8. When the multivalued attributes in a relation are removed, then that relation is said to be ————

(a) 1NF (b) 2NF

(c) 3NF (d) None

9. A subquery is added in the ———— clause of the sql statement.

(a) Select clause (b) Where clause

(c) Having clause (d) None

10. ———— command can be used to display the structure of database.

(a) ALTAR TABLE

(b) DESCRIBE

(c) VIEW TABLE

(d) None of the above

PART B — (5 × 5 = 25 marks)

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

11. (a) What are the purpose of using database system? Explain.

Or

(b) What are DDL commands? Give example.

12. (a) Draw the schema diagram for university register office.

Or

(b) Write short note on Natural join operation.

13. (a) Explain order by clause with example.

Or

(b) What is scalar subquery? Give example.

14. (a) What is decomposition?

Or

(b) Explain second normal form.

15. (a) What is correlated subquery? Give example.

Or

(b) What are the advantages of using stored procedures?

PART C — (5 × 8 = 40 marks)

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

16. (a) Explain how to design a database system.

Or

(b) What are data models? Explain.

17. (a) Explain the structure of relational database.

Or

(b) Explain

(i) Queries on single relation

(ii) Queries on multiple relation.

18. (a) What are aggregate function? Give example.

Or

(b) Explain how to create view in SQL? Give example.

19. (a) What is generalization? Explain with example.

Or

(b) Explain

(i) 5NF

(ii) Multivalued dependency

20. (a) Explain how to create table. Give example.

Or

(b) Explain PL/SQL control structure in detail.

———————