

| Reg. No. |  |  |  |   |  |
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## V Semester B.C.A. 2 Examination, November/December 2018 DATABASE MANAGEMENT SYSTEM (Repeater)

Time: 3 Hours Max. Marks: 80

Instructions: i) Answer the questions as per instructions.

ii) Draw neat diagram.

## SECTION - A

Answer any ten of the following questions. Each question carries 2 marks.

 $(10 \times 2 = 20)$ 

- 1. Define DBMS.
- 2. Define Data Model. List categories.
- 3. Define Data Independence. Mention their types.
- 4. Define relation.
- 5. Give different DBMS languages.
- 6. Who is endusers? Mention their categories.
- 7. Define attribute and entity.
- 8. Define functional dependencies.
- 9. List the ACID properties of Transaction.
- 10. List the types of locks.
- 11. Write syntax and example of CREATE TABLE command.
- 12. Define primary key and foreign key.

## SECTION - B

Answer **any six** of the following questions. **Each** question carries **5** marks.

 $(6 \times 5 = 30)$ 

- 13. Explain various actors on the scene.
- 14. Discuss characteristics of relation.
- 15. Explain types of attributes.
- 16. Draw and name the various symbols used for notation in ER Diagram.
- 17. Explain the datatypes in SQL.
- 18. Explain SELECT and PROJECT operation.
- 19. Explain desirable ACID properties of transaction.
- 20. Explain the types of locks for concurrency control.



## SECTION - C

| Answer any three full questions. Each question carries 10 marks. (10 |    |   |       |  |
|--|----|---|-------|--|
| 21. Discuss the advantages of DBMS in detail.                        |    |   |       |  |
| 22.  | a) | Draw the ER diagram for company database.   |       |  |
|  | b) | Explain types of datamodels.  | (6+4) |  |
| 23.  | Ex | plain various DBMS Interfaces.  | 10    |  |
| 24.  | a) | Explain INF and 2NF Normal Form.  |       |  |
|  | b) | Explain UPDATE and INSERT SQL command.  | (5+5) |  |
| 25.  | a) | What do you mean by recovery in transaction processing? Discuss various failures w.r.t. |       |  |
|  |    | recovery.   |       |  |
|  | b) | Explain workers behind the scene.   | (5+5) |  |
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