# FOURTH SEMESTER (CBCSS-UG) DEGREE EXAMINATION APRIL 2024

B.C.A./B.Sc. Computer Science

#### BCA4B05/BCS4B05—DATABASE MANAGEMENT SYSTEM AND RDBMS

(2019 Admission onwards)

Time: Two Hours

Maximum: 60 Marks

### Section A - Short Answer Type Questions

Answer **all the** questions. Each question carries maximum of 2 marks. Ceiling 20 marks.

- 1. List the advantages and applications of DBMS.
- 2. Define instances and schemas of database.
- 3. What are the different Relationship Sets? Explain.
- 4. Define i) super key; ii) candidate key.
- 5. What are domain constraints?
- 6. Explain about multi-valued dependencies.
- 7. Define views.
- 8. Explain deadlock and advisory lock.
- 9. What is mean by revoke? How it is applied?
- 10. What is the need for triggers?
- 11. How to lock Table-level?
- 12. How to use IN operator in SQL? Explain.

(Ceiling 20 marks)

### **Section B Short Essay Type Questions**

Answer all the questions. Each question carries 5 marks. Ceiling 30 marks.

- 13. What do you mean by Database Independence? Explain Three Schema Architecture.
- 14. List the different set operations? Explain each with examples.

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- 15. Explain about different types of integrity constraints.
- 16. Define second and fifth normal Form.
- 17. What is Decomposition? What is the purpose of Decomposition in database?
- 18. Which are the modes of lock? Explain. Explain two phase locking.
- 19. Write about triggers and its operations in detail.

(30 marks)

## **Section C Essay Type Questions**

Answer any **one** question. The question carries 10 marks.

- 20. a. Explain different relational database anomalies in a database. (5 marks)
  - b. List different data models and explain each. (5 marks)
- 21. a. What Does Database Concurrency Mean? When a lost update problem occurs how the problems can be avoided, explain?

(6 marks)

b. What are the disadvantages of file-processing system?

(4 marks)

 $(1 \times 10 = 10 \text{ marks})$