Second Semester B.C.A. Degree Examination, May/June 2019
(CBCS – Freshers)

Computer Science

Paper BCA 204 — DATABASE MANAGEMENT SYSTEMS

Time : 3 Hours] [Max. Marks : 70

Instructions to Candidates : Answers All Sections.

SECTION – A

Answer any TEN questions. Each question carries 2 marks : \(10 \times 2 = 20\)

1. Define data and information.
3. Define entity and relationship.
4. Define primary key with example.
5. What is the difference between DBMS and RDBMS?
6. What is DDL, DML?
7. Define data independence.
8. What is meant by normalization?
9. What is trigger?
10. What is meant by concurrency control?
11. Write the syntax and example for delete command.
12. What is exception? Mention its types.

SECTION – B

Answer any FIVE questions. Each question carries 10 marks : \(5 \times 10 = 50\)

13. (a) Explain any five functions of DBMS. \(5\)
(b) Explain the roles and responsibilities of DBA. \(5\)
14. (a) Write short notes on hierarchical and Network data model. (5)
    (b) Explain the architecture of DBMS. (5)

15. (a) Explain the different types of relationships used in DBMS. (5)
    (b) Explain about any two secondary storage devices with example. (5)

16. (a) Explain any two types of normalization with an example. (5)
    (b) What is join? Explain its types. (5)

17. (a) Write an SQL Query for student database:
    (i) Create a table with following fields.
        - Regno (Primary key)
        - name (text)
        - m1 (number)
        - m2 (number)
    (ii) Add the column college to the existing table.
    (iii) Delete the column m2 from the table.
    (iv) Display the details using select command. (5)
    (b) Explain the different types of cursors. (5)

18. (a) Write a PL/SQL Program to perform the basic arithmetic operations. (5)
    (b) Write a PL/SQL Program to find out the given year is leap year or not. (5)

19. (a) Explain different types of trigger. (5)
    (b) Explain any 5 SQL Queries with an example. (5)

20. (a) Explain different types of Lock. (5)
    (b) What is meant by time stamp? Explain any two methods with an example. (5)