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CB – 475

II Semester B.C.A. Examination, August/September 2023
(CBCS) (Repeaters) (2014 – 15 and Onwards)
COMPUTER SCIENCE
Paper – BCA 204 : Database Management System

Time : 3 Hours

Max. Marks : 70

Instruction : *Answer all Sections.*

SECTION – A

Answer **any ten** questions. **Each** question carries **two** marks. **(10×2=20)**

1. What is DBMS ? Mention any two advantages of DBMS.

2. Give any two functions of DBA.

3. Define schema and an instance.

4. Name any four types of attributes.

5. Define an entity. Mention its types.

6. What is RAID ?

7. Define primary key and foreign key.

8. Explain commit and Rollback command.

9. What is a Query ?

10. What is heap file ?

11. What are ACID properties ?

12. What is concurrency control ?

SECTION – B

Answer **any five** questions. **Each** question carries **ten** marks. **(5×10=50)**

13. a) What is Data independence ? Explain briefly the types of data independence.   5

    b) Explain different people behind DBMS.   5

14. a) Explain the E-R notations used in Database Schema. 5

    b) What is a relationship ? Explain the types of relationship with an example. 5

15. a) What is file ? Explain the methods of allocating file block on disk. 5

    b) What is hashing ? Mention its advantages and disadvantages. 5

16. a) What is normalization ? Explain briefly the various types of normal forms with an example. 7

    b) Explain insertion, updation and deletion anamolies in database. 3

17. a) What is Join Operation ? Explain different types of Join Operation with an example. 6

    b) Explain DDL statements with an example. 4

18. a) Explain the types of keys in Relational Database Model. 5

    b) Explain selection and projection operations in relational algebra with an example. 5

19. a) Explain alter and create command with syntax and an example. 6

    b) Write PL/SQL program to find factorial of a number using while loop. 4

20. a) Explain the concurrency control using time stamping. 5

    b) Explain lock and unlock operations for binary lock. 5