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Second Semester B.Sc. Degree (CBCSS – OBE – Regular/ Supplementary/Improvement) Examination, April 2024 (2020 Admission Onwards) COMPLEMENTARY ELECTIVE COURSE IN LIFE SCIENCE (ZOOLOGY) AND COMPUTATIONAL BIOLOGY 2C02CSC-ZCB – Database Management Systems

Time: 3 Hours Max. Marks: 32

PART – A (Short Answer)

Answer all questions. Each question carries 1 mark.

 $(5 \times 1 = 5)$

- 1. What do you mean by database management system?
- 2. Write features of a candidate key.
- 3. What do you mean by redundancy in database?
- 4. Write syntax of update query.
- 5. What do you mean by tuples in relational database model?

PART – B (Short Essay)

Answer any 4 questions, not exceeding 75 words. Each question carries 2 marks.

 $(4 \times 2 = 8)$

- 6. What do you mean by attribute?
- 7. Who is a database administrator?
- 8. Define 2NF.
- 9. Write about select query.
- 10. Discuss the various data types in SQL.



PART – C (Essay)

Answer **any 3** questions, **not** exceeding **150** words. **Each** question carries **3** marks. (3×3=9)

- 11. Draw block diagram of a database structure.
- 12. Write an example to create a employee table with fields emp id (Primary Key), name, date of birth, department, designation. Write query to sort table in ascending order. Retrieve name of employees working in IT department.
- 13. Compare various constraints that can be applied on a database.
- 14. Short note on DML statements in SQL
- 15. Explain concept of record, domain and relations.

PART – D (Long Essay)

Answer **any 2** questions, **not** exceeding **300** words. **Each** question carries **5** marks. **(2×5=10)**

- 16. Explain ER model in detail.
- 17. Explain various database users.
- 18. Explain aggregate functions and joins in DBMS.
- 19. Explain various relational algebra operations.