



B.Sc DEGREE (CBCS)EXAMINATION, AUGUST 2021

Third Semester

B.Sc Mathematics Model II Computer Science

VOCATIONAL COURSE - CA3VOT03 - COMPUTER SCIENCE - DATABASE MANAGEMENT SYSTEMS

2017 Admission Onwards B254AEC2

Time: 3 Hours

Max. Marks: 80

Part A

Answer any **ten** questions.

Each question carries **2** marks.

- 1. What is a native user?
- 2. What is physical data independence?
- 3. What is aggregation?
- 4. What is total partial constraint?
- 5. Define super key.
- 6. List out any two importance of relational algebra.
- 7. Explain the term recursion in SQL.
- 8. What is the purpose of 'WHERE' clause in SQL?
- 9. What is buffer replacement strategy?
- 10. Differentiate B Tree and B+ Tree.
- 11. What is the importance of sorting in DBMS?
- 12. Explain Parallel systems.

 $(10 \times 2 = 20)$

Part B

Answer any six questions.



Each question carries 5 marks.

- 13. What are the different types of database users?
- 14. Explain 3-tier architecture in DBMS.
- 15. Explain SELECT operation in relational algebra operation.
- 16. Explain outer join operation.
- 17. Explain any four DML languages.
- 18. Explain BETWEEN and LIKE operator in SQL.
- 19. Explain different possible ways of organizing records in files.
- 20. Explain Data Dictionary and Buffer Manager.
- 21. What are the threats to databases?

 $(6 \times 5 = 30)$

Part C

Answer any **two** questions.

Each question carries **15** marks.

- 22. Explain integrity constraints in details.
- 23. Explain integrity constraints in details.
- 24. Explain File Organization and different types of records.
- 25. Explain Query Processing.

 $(2 \times 15 = 30)$