

FACULTY OF SCIENCE**B.Sc. IV-Semester (CBCS) Examination, May / June 2018****Subject: Computer applications****Paper – IV****Database Management Systems****Time: 3 Hours****Max.Marks: 80****PART – A (5x4 = 20 Marks)****[Short Answer Type]****Note: Answer any five of the following questions.**

- 1 Explain about three level architecture.
- 2 Explain about integrity constraints.
- 3 Explain different aggregate functions supported by SQL.
- 4 Explain about scalar data types.
- 5 What is an attribute? Explain different types of attributes.
- 6 Explain about functional dependency.
- 7 Explain about properties of transaction.
- 8 Explain about Two Phase Locking (2PL).

PART – B (4x15 = 60 Marks)**[Essay Answer Type]****Note: Answer all questions from the following.**

- 9 a) Explain the advantages and disadvantages of DBMS.
OR
b) Explain the functions of DBMS.
- 10 a) Explain about functions and procedures in advanced-SQL.
OR
b) Explain about discretionary access control mechanism.
- 11 a) Explain about specialization, generalization and aggregation with suitable examples.
OR
b) Define Normalization. Explain about 3NF and BCNF with examples.
- 12 a) Explain about Deadlocks in detail.
OR
b) Explain different recovery techniques.
