

Paper ID [A0466]

(Please fill this Paper ID in OMR Sheet)

B.Tech. (Sem. - 5th)

DATABASE MANAGEMENT SYSTEMS (CS - 305)

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) What is a view? How a view is created?
- b) What are the various types of transaction failure that may occur in system?
- c) List two reasons why null values might be introduced in database?
- d) Define E-R Diagram with the help of an example?
- e) Distinguish between disjoint and overlapping constraints?
- f) What are mapping cardinalities? Discuss its types?
- g) What is trigger? What is its use?
- h) Distinguish between procedural and non procedural languages?
- i) What do you mean by Query Processor?
- j) Define DDL and DML?

Section - B

(4 × 5 = 20)

- Q2)** What is Normalization? Explain why 4NF is more desirable than BCNF with the help of an example?
- Q3)** What are the main differences between file processing and database systems?
- Q4)** Discuss the classification of Databases?
- Q5)** What are the components of DBMS?
- Q6)** What is deferred update technique for database recovery?

Section - C

(2 × 10 = 20)

- Q7)** (a) Define transactions? What are the states of transactions?
(b) Discuss ACID properties of transactions? When undo and redo operations are used?
- Q8)** Discuss database Security and Integrity? Explain its various methods?
- Q9)** Write short notes on:
(a) Levels of database abstraction.
(b) DDL and DML.
(c) Data independence.

