

FACULTY OF ENGINEERING

B. E. IV – Semester (AICTE) (CSE) (Main & Backlog) Examination, October 2021

Subject: Database Management Systems

Time: 2 hours

Max. Marks: 70

Note: (Missing data, if any, may be suitably assumed)

PART – A

Answer any five questions.

(5 x 2 = 10 Marks)

- 1 Tell about Database applications?
- 2 What are Weak Entity Sets?
- 3 Differentiate between file system and data base system.
- 4 What is Set Operation?
- 5 Explain about Transaction.
- 6 What is dynamic SQL?
- 7 Tell about Normalization?
- 8 Define transaction state.
- 9 What is deadlock handling?
- 10 Distinguish between indexing & hashing?

PART – B

Answer any four questions.

(4 x 15 = 60 Marks)

- 11 (a) Draw and explain 'Database Architecture'.
(b) Write about Nested Subqueries.
- 12 (a) Explain about Fundamental Relational-Algebra Operations.
(b) Discuss about 'Null values'.
- 13 Explain about Atomic domains & First Normal Form.
- 14 (a) Give the comparison of ordered indexing and hashing bitmap indices.
(b) Explain the concept of B-tree index files.
- 15 (a) Differentiate between Timestamp based protocols & Validation based protocols.
(b) Write about storage structure.
- 16 Explain in detail Extended Relational – Algebra Operations.
- 17 Write short notes on:
 - (a) E-R Model
 - (b) Static hashing & dynamic hashing ...