

CO318 ADVANCED DATABASE MANAGEMENT SYSTEM

Time: 1:30 Hours

Max. Marks: 30

Note: Answer all Questions. Assume missing data if any.

- Q1. (a) What is XML DTD? Explain the notations used in Document Type Definition (DTD). [3]
 (b) Create a procedure that inserts multiple rows in an existing relation. [2]
- Q2. Create a function that accept roll no from Student(roll_no, name,branch,year) relation as an input and returns his/her age. [5]
- Q3. Draw all possible query tree for below Relational Algebra and what would be the best query plan? [5]
 \prod EMP_ID, DEPT_NAME (σ DEPT_ID = 10 AND EMP_LAST_NAME = 'Sharma' (EMP \bowtie DEPT))
 Or
 \prod EMP_ID, DEPT_NAME (σ DEPT_ID = 10 AND EMP_LAST_NAME = 'Sharma' (EMP \bowtie DEPT))
 Or
 σ DEPT_ID = 10 AND EMP_LAST_NAME = 'Sharma' (\prod EMP_ID, DEPT_NAME, DEPT_ID (EMP \bowtie DEPT))
- Q4.(a) What is Materialized View (MV)? Explain it in connection with Join operation. [3]
 (b) Explain Log based recovery with suitable example. [2]

P.T.O.

Q5. What is an equivalence rule? Describe various equivalence rules used for query optimization. [5]

Q6. Differentiate between the following: [5]

- a) Embedded SQL and Dynamic SQL
 - b) Stored procedure and function
- END