

Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India (Autonomous College Affiliated to University of Mumbai)



Mid Semester Examination

March 2018

Max. Marks: 30

Class:S.E.

Course Code:IT43 and CE42

Semester:III Branch:IT and COMP

Duration: 90 Min

Name of the Course:Database Management System

Instruction:

(1) All questions are compulsory

(2) Draw neat diagrams

(3) Assume suitable data if necessary

| Q No. | | | |
|-------|--|---------------|-----|
| | | Max. Marks | CO |
| Q.1 | List any six responsibilities of a database-management system. For each responsibility, explain the problems that would arise if the responsibility were not discharged. OR | 6 | CO1 |
| | With the help of example draw and explain data abstraction level. | | |
| Q.2 | Differentiates following 1.primary key and unique key 2.Drop table command and truncate table command 3.Data and Information | 6 | CO1 |
| Q.3 | Consider the following database schema, Sailors(sid, sname, rating, age) Boats(bid, bname, color) Reserves(sid, bid, day) Write following query in SQL and Relational Algebra a) Find the names and ages of sailors with rating above 7 b) Find the sailors id, sailors name ,reservation day for each reservation c) Give the name of sailors who have reserved boat 103 d) Find the name of sailors who have reserved the red Boat. e) Find the name of sailors whose age is greater than 20 | 10 | CO2 |
| Q.4 | Consider the database schema given in Q.No 3 . Solve the query a and b in Tuple relational Calculus | 4 | CO2 |
| Q.5 | What is the limitation of E-R model? What can be done to overcome this drawback .Justify Your answer. | 4 | CO2 |
| | OR | | |
| | Define Cardinality ratio of a relationship. With example describe any two type of relationship | | |