



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
October 2022

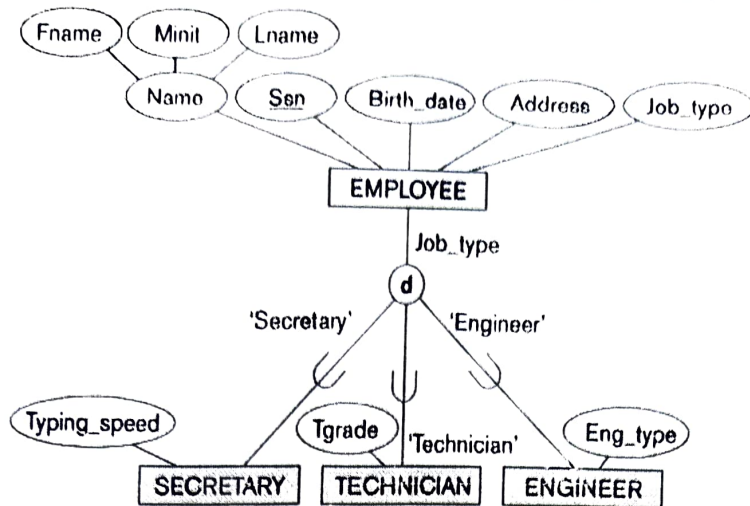
Course Name: Data Base Management System
Class: S.Y.BTech
Branch: COMP/DS/AI ML

Course Code: CE204/DS204/AI204
Max. Marks: 20
Semester: III

Instruction:

- (1) All questions are compulsory
- (2) Draw neat diagrams
- (3) Assume suitable data if necessary
- (4) Mention the question number clearly while writing the answer

QNo	Question	Marks	CO
1a)	What will be the input, Process and output of conceptual Design.	2	1
b)	Describe the codd's Rule for accessing each atomic value and representing missing information.	2	1
c)	Choose the correct statement(s) related to database languages. a) The output of Data Definition Language statements is placed in the data dictionary which contains meta-Data, b) Data Manipulation Language helps in alteration to the table. c) Data Definition Language helps in insertion of records to the tables. d) Data Manipulation Language enables the users to manipulate the data.	1	1
2a)	Consider the Banking application. Banks need to keep information of account such as acc_no, balance and date of opening. Bank also keep track of interest paid on saving account and number of withdraw on checking account. 1) Identify the EER features. 2) Is it Overlapping or Disjoint relation? Justify	2	1
b)	Convert the following ER model to relational model.	3	1



3)

Consider the following schema:

Suppliers(sid:integer,sname:string,city:string),
 Parts(pid:integer,pname:string,color:string, sid:integer),
 Catalog(sid:integer,pid:integer,cost:real)

Using SQL write following queries

1. Find the names of suppliers who supply some red part
2. Find the sids of suppliers who supply some red or green part
3. Find names of suppliers in Mumbai
4. Find parts name with Red or yellow color
5. Find the sids of suppliers who supply some red part or belongs to Pune.

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4)

Consider the following relational database schema consisting of the four relation schemas:

passenger (pid, pname, pgender, pcity)
 agency (aid, pid, aname, acity)
 flight (fid, fdate, time, source, destination)
 booking (pid, aid, fid, fdate)

Answer the following questions using relational algebra queries;

1. Get the complete details of all flights to New Delhi.
2. Get the details about all flights from Chennai to New Delhi.
3. Find the details of all male passengers who are associated with Jet agency.
4. Find the passenger names who belongs to city Mumbai.
5. Find details of all flight on date 29/10/2022 arriving at 11.00pm.

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