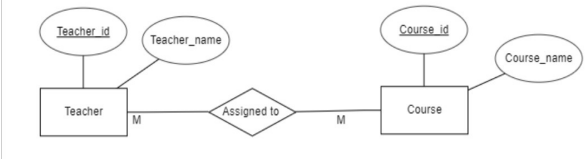
# Pune Institute of Computer Technology, Pune-43
# DEPARTMENT OF INFORMATION TECHNOLOGY
# (Academic Year – 2023-24 Sem-II)
# UNIT TEST - I

Subject: Database Management System — Subject Code: 214452
Class: SE — Div.: IX, X, XI — [Max. Marks: 30]
Date: 21/ 02/ 2024 — Day: Wednesday — Duration: 1 Hour

**Instructions to the candidate:**

1. All questions are compulsory
2. Draw neat diagram wherever necessary.

| Que. No. | Questions | Max Marks | CO Mapped | Bloom's Learning Level |
|---|---|---|---|---|
| 1-a | Explain Data Abstraction? What is the role of Data abstraction in DBMS? | 05 | CO-I | L1- Remembering |
| 1-b | What is need of Data modeling? What are different types of Data Model? Explain all. | 05 | CO-I | L2- Understanding |
| 1-c | Describe three level Architecture of DBMS. Explain how it is useful for achieving data Independence. | 05 | CO-I | L2- Understanding |
| | | | | |
| 2-a | What are the various types of attributes? Explain each with example along with how it shows in E-R Diagram? | 05 | CO-II | L2- Understanding |
| 2-b |  <br>Consider the following E-R Diagram :<br>a) Convert above E-R into Table<br>b) How many tables will be created using the above scenario?<br>c) What will be the primary key and foreign key?<br>d) If in above diagram mapping cardinality is one to many then what will be table structure. | 05 | CO-II | L3- Applying |
| 2-c | Explain the concepts of Referential Integrity Constraint and Entity Integrity Constraint with example. | 05 | CO-II | L3- Applying |

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**Course Outcomes (CO Mapped):**

| | |
|---|---|
| CO-I | Students will be able to **specify** fundamentals of database management system such as need of database system, data abstraction and overall architecture of DBMS. [Knowledge][L1,L2] |
| CO-II | Students will be able to **use** relational data modelling concepts to **draw** ER/EER model and **apply** rules for conversion to relational schema. [Application][L2,L3] |

**Bloom's Taxonomy (Bloom's Learning Level):**

| | | |
|---|---|---|
| L1 | Remembering | Recall specific facts |
| L2 | Understanding | Grasp meaning of materials |
| L3 | Applying | Use information in a new situation |
| L4 | Analyzing | Identify schemas or relationships |
| L5 | Evaluating | Use information to make judgments |
| L6 | Creating | Create or develop something new |

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