



Plot No. 2, Knowledge Park-III, Greater Noida (U.P.) –201306
POST GRADUATE DIPLOMA IN MANAGEMENT (2024-26)
END TERM EXAMINATION (TERM- IV)

Subject Name: **Database Concepts and Applications**
Sub. Code: **PGIT41**

Time: **100 min**
Max Marks: **40**

INSTRUCTIONS

- All questions are to be solved using MySQL Workbench on individual Computers/LAPTOPS.
 - Use New query Tab in MySQL file and attempt all the question in the same file. Write comment e.g. -- Question no. xx at the beginning of each question.
 - Save it as script file (.sql) with Your Name and rollno. For example: AGarg_PGDM23101.sql and submit the soft copies using a PD.
 - Sharing of PD for submitting final ANSWER / SOLUTION is not allowed and would lead to cancellation of the answers submitted.
- During the examination, no student is allowed to use mobile phones/Smart watch/Internet/ChatGPT under any conditions.

All questions are compulsory and carry equal marks. _____ [8 Marks x 5=40 Marks]

1. (a) Create a table named Laptops with the following columns and at least 2 constraints giving definition of each.

Laptop_ID	Brand	Model	Price	RAM_Size
1001	Dell	XPS 13	85000	16GB
1002	HP	Pavilion	60000	8GB
1003	Apple	MacBook Air	95000	8GB
1004	Lenovo	ThinkPad	75000	16GB
1005	Asus	ZenBook	68000	16GB

- (b) Insert all the above records into the Laptops table using single row insert.
 (c) Write a SQL query to retrieve details of laptops where the Price is greater than 70000.

2. Consider the following table Student_Marks. identify in which Normal form it is? Give the violation rule and remove the violation to take it to next Normal form.

Student_ID	Subject	Student_Name	Marks
101	Math, Science	Ravi	85, 90
102	Math, Science	Amit	75, 82
103	English	Priya	88

3. Create the following table Movies in MySQL and answer the questions:

M_ID	Title	Genre	Director	Rating
501	Inception	Sci-Fi	Nolan	8.8
502	Titanic	Romance	Cameron	7.8
503	Avatar	Sci-Fi	Cameron	7.9
504	Sholay	Action	Sippy	8.2
505	Lagaan	Drama	Gowariker	8.1

- (a) Write a SQL statement to find the total number of unique Genres available in the table.
- (b) Write a SQL statement to find the maximum Rating among all movies.
- (c) Write a SQL statement to find the Title which contains letter "a".

4. Create the following two tables Employees and Departments using MySQL:

Table: Employees

Emp_ID	Name	City	Salary	Dept_ID	Email
E01	Alice	New York	50000	D1	alice@gmail.com
E02	Bob	Chicago	60000	D2	bob@gmail.com
E03	Charlie	New York	55000	D1	charlie@gmail.com

Table: Departments

Dept_ID	Dept_Name	Manager
D1	HR	Sarah
D2	IT	Mike
D3	Sales	John

- (a) Write the SQL statements to insert the data shown above, adding the foreign key constraint.
- (b) Display employee Name along with their Department Name and Salary.
- (c) Define Data Warehouse and Data Mart (use comment to write text in MySQL).
- (d) Differentiate between Distributed database and Web-enabled database giving one example of each.

Q5. From the following table solve the questions.(No need to create table)

Boat_ID	Boat_Name	Boat_Type	Price_USD
101	Sea Breeze	Yacht	250000
102	Ocean Runner	Speed Boat	85000
103	Wave Rider	Fishing	45000
104	Blue Pearl	Luxury Boat	320000
105	River Scout	Ferry	120000

- a. Display all records from the boats table.
- b. Show only the Boat_Name and Boat_Type of all boats.
- c. Retrieve details of boats with "a" in their names
- d. Display boats where price range is **50,000 and 200,000 USD and arrange in increasing order of salary.**

COs	Marks Allocated	Question
CO1	8	1
CO2	8	2
CO3	16	3, 4
CO4	8	5