# Course Name: PG-DAC Batch: Aug 2025

# Module Name: Database Technologies [Set 1] Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

# Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Max Marks: 40 Marks

# PRN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration: 2 Hours

**Section A: Question 1 to 5: 2 marks each**

1) Display the second lowest marks scored by any student in 10th. (use Campus DB)

2) Display all job names with 2nd highest salary for every job (use EMP table).

3) Print the date, One month and 15 days after today’s date.

4) Display all student information whose name starts with 'S' and its length of name is 6 or more char. (use Campus DB)

5) Display all student details whose DoB is same as studentID 7. (use Campus DB)

**Section B: 20 Marks (10 marks each)**

1. Based on the student's ranks in the student relation, create a stored method called "get\_grades" that outputs "A+", "A", "B+", "B", or "F" (using CURSORS).
2. Create a stored procedure PrintEvenNumbers(IN N INT) that prints even numbers up to N using a LOOP.

# Evaluation of Lab Exam should be based on the following criteria:

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Details** | **Max Marks** | **Marks Obtain** |
| Algorithm | Documentation of Algorithm and Flowchart | 30 |  |
| Program adheres to the algorithm and flowchart |
| Efficiency | Program is using only the required number of variables  /conditions/loops/pointers etc and is optimal |
| Correctness | The program produces desired output for a given input |
| The program handles all valid and Invalid inputs |
| Software Engineering Principles | The program has meaning variable/function names |
| The program is commented properly (At least 20% of the code should be commented) |
| Viva |  | 10 |  |
|  | ***Total Marks*** | **40** |  |

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## Signature of Student Signature of Evaluator Signature of Coordinator

# Course Name: PG-DAC Batch: Aug 2025

# Module Name: Database Technologies [Set 2] Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

# Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Max Marks: 40 Marks

# PRN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration: 2 Hours

**Section A:  Question no 1 to 5: 2 marks each**

(use Campus DB)

1)  List nameFirst, nameLast, and emailID of student whose studentID is not 5, 10, 15, display first 7 rows only.

2)  List all student details and student\_qualification whose college is in ‘New York’.

3)  List all student details and student\_qualification whose have done “BE” from “Florida” college.

4)  Write a query to create new table by your name having the following attributes and constraints (\_id int auto increment, ename varchar(20) with not null, phone int with unique, salary int with salary more than 5000, and city varchar(20) with default value as ‘Baroda’)

5) Find the student details that have scored highest marks in 'BE'.

**Section B:  20 Marks﻿ (10 marks each)**

1. Encrypt\_string(str VARCHAR(100)) is a UDF that moves each ASCII character by +1.

As an example, "abc" → "bcd".

1. Create a stored procedure DeleteStudent(IN \_studentID INT) that deletes the student from STUDENT table. IF student doesn’t exist in the STUDENT table, then print a message **"Student not present"**.

# Evaluation of Lab Exam should be based on the following criteria:

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Details** | **Max Marks** | **Marks Obtain** |
| Algorithm | Documentation of Algorithm and Flowchart | 30 |  |
| Program adheres to the algorithm and flowchart |
| Efficiency | Program is using only the required number of variables  /conditions/loops/pointers etc and is optimal |
| Correctness | The program produces desired output for a given input |
| The program handles all valid and Invalid inputs |
| Software Engineering Principles | The program has meaning variable/function names |
| The program is commented properly (At least 20% of the code should be commented) |
| Viva |  | 10 |  |
|  | ***Total Marks*** | **40** |  |

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## Signature of Student Signature of Evaluator Signature of Coordinator

# Course Name: PG-DAC Batch: Aug 2025

# Module Name: Database Technologies [Set 3] Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

# Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Max Marks: 40 Marks

# PRN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration: 2 Hours

**Section A: Question no 1 to 5: 2 marks each**

1. Write a query to fetch ALTERNATE records from an EMP table. **(only ODD Records).**

2. Display the student detail that has joined the same batch of the student ‘Saleel’.

3. Display all students who have taken admission in more than 2 batches.

4. Display all courses where least number of students has taken the admission.

5. Display the 3rd highest salary from EMP table (use EMP table).

**Section B:  20 Marks (10 marks each)**

1. Create the following UDF customer\_type(purchase\_amount DECIMAL(10,2)) that returns the following:

* "PLATINUM" if the sum exceeds one million
* "Diamond" is between 50,000 and 1,00,000
* Between 10,000 and 50,000, "GOLD"
* Otherwise, "SILVER"

1. Create a stored procedure GetTotalMarks(IN student\_id INT, OUT total\_marks int) that calculates the total marks of (10th + 12th + BE) for a student.

# Evaluation of Lab Exam should be based on the following criteria:

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Details** | **Max Marks** | **Marks Obtain** |
| Algorithm | Documentation of Algorithm and Flowchart | 30 |  |
| Program adheres to the algorithm and flowchart |
| Efficiency | Program is using only the required number of variables  /conditions/loops/pointers etc and is optimal |
| Correctness | The program produces desired output for a given input |
| The program handles all valid and Invalid inputs |
| Software Engineering Principles | The program has meaning variable/function names |
| The program is commented properly (At least 20% of the code should be commented) |
| Viva |  | 10 |  |
|  | ***Total Marks*** | **40** |  |

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## Signature of Student Signature of Evaluator Signature of Coordinator

# Course Name: PG-DAC Batch: Aug 2025

# Module Name: Database Technologies [Set 4] Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

# Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Max Marks: 40 Marks

# PRN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration: 2 Hours

**Section A: Question no 1 to 5: 2 marks each**  
  
1)    Get student nameFirst with how many characters are there in their nameFirst.  
  
2)    Get (nameFirst, nameLast and last 3 letters of nameFirst) for all students.  
  
3)    Display all students with their voting rights, if the student is below 1980 then print the message **“\*The student**

**can vote”** else print **“The student cannot vote”**.  
  
4)   Display students nameFirst, nameLast, and DoB who are not having any type of cards.   
  
5)    Write a query to create identical table (with your name) of student table includes all the key (e.g. Primary key,..) .  
  
  
**Section B: 20 Marks (10 marks each)**

1. create a UDF tax\_amount(income DECIMAL(10,2)) function that returns tax based on slabs:

* 5% for 2.5-5L.
* 20% off 5–10L.
* 30% more than 10L.

1. Create a stored procedure GetAllStudent() that retrieves all records from the student table **using cursor**.

# Evaluation of Lab Exam should be based on the following criteria:

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Details** | **Max Marks** | **Marks Obtain** |
| Algorithm | Documentation of Algorithm and Flowchart | 30 |  |
| Program adheres to the algorithm and flowchart |
| Efficiency | Program is using only the required number of variables  /conditions/loops/pointers etc and is optimal |
| Correctness | The program produces desired output for a given input |
| The program handles all valid and Invalid inputs |
| Software Engineering Principles | The program has meaning variable/function names |
| The program is commented properly (At least 20% of the code should be commented) |
| Viva |  | 10 |  |
|  | ***Total Marks*** | **40** |  |

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## Signature of Student Signature of Evaluator Signature of Coordinator

# Course Name: PG-DAC Batch: Aug 2025

# Module Name: Database Technologies [Set 5] Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

# Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Max Marks: 40 Marks

# PRN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration: 2 Hours

**Section A: Question no 1 to 5: 2 marks each**  
1)    Get student nameFirst with how many characters are there in their nameFirst.  
  
2)    Get (nameFirst, nameLast and last 3 letters of nameFirst) for all students.  
  
3)    Display the difference between the salary of ‘SMITH’ and ‘JONES’ (use EMP table).   
  
4)    Write a query to display the student data following format

**(Bhoopali Nanadikar and emailID is bhoopali.nanadikar@gmail.com)**  
      
5)    Display nameFirst and count how many ‘A’ char in appearing in their names.

**Section B: 20 marks (10 marks each)**

1. Create the tables stock with the attributes (productID int primary key, productName varchar(20), productStock int) and add 5 records and then write a procedure update\_stock(IN product\_id INT, IN qty INT) that reduces stock when an order is placed.
   1. Create the update\_salary procedure (IN emp\_id INT, IN hike DECIMAL(5,2)) that raises an employee's pay by a specified percentage.

# Evaluation of Lab Exam should be based on the following criteria:

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Details** | **Max Marks** | **Marks Obtain** |
| Algorithm | Documentation of Algorithm and Flowchart | 30 |  |
| Program adheres to the algorithm and flowchart |
| Efficiency | Program is using only the required number of variables  /conditions/loops/pointers etc and is optimal |
| Correctness | The program produces desired output for a given input |
| The program handles all valid and Invalid inputs |
| Software Engineering Principles | The program has meaning variable/function names |
| The program is commented properly (At least 20% of the code should be commented) |
| Viva |  | 10 |  |
|  | ***Total Marks*** | **40** |  |

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## Signature of Student Signature of Evaluator Signature of Coordinator

# Course Name: PG-DAC Batch: Aug 2025

# Module Name: Database Technologies [Set 6] Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

# Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Max Marks: 40 Marks

# 

# PRN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Duration: 2 Hours

**Section A: Question no 1 to 5: 2 marks each**

1)    Display the count of modules taught in ‘PD-DAC’ course.

2)    Display student nameFirst and how many characters are there in their emailID.

3)    Show the first and last names of each student, then print those rows in the format shown below.   
For instance, **"August is the month that Deep was born."**

4)    Display all students with their voting rights, if the student is below 1980 then print the message **“\*The student can vote”** else print **“The student cannot vote”.**

5)    Display the student’s name and phone details where student ID is 7.

**Section B: 20 Marks (10 marks each)**

1. Write Stored Function named FN1() to accept your name and display your name in following format.

**INPUT: FN1(‘VASANT‘)**

**OUTPUT: V-A-S-A-N-T**

1. Write a trigger to prevents deletion of student record from student table

# Evaluation of Lab Exam should be based on the following criteria:

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Details** | **Max Marks** | **Marks Obtain** |
| Algorithm | Documentation of Algorithm and Flowchart | 30 |  |
| Program adheres to the algorithm and flowchart |
| Efficiency | Program is using only the required number of variables  /conditions/loops/pointers etc and is optimal |
| Correctness | The program produces desired output for a given input |
| The program handles all valid and Invalid inputs |
| Software Engineering Principles | The program has meaning variable/function names |
| The program is commented properly (At least 20% of the code should be commented) |
| Viva |  | 10 |  |
|  | ***Total Marks*** | **40** |  |

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## Signature of Student Signature of Evaluator Signature of Coordinator