MySQL Practical Evaluation Exam

Provided Dataset

```
Table: employees
```

| 2

| 3

| 4

| 2

| 3

| 1

```
| id | name
             | department_id | salary | hire_date |
|----|------|------|
| 1 | Amit Kumar | 1
                        | 60000 | 2021-02-15 |
| 2 | Neha Sharma | 2
                         | 75000 | 2020-11-01 |
| 3 | Rohan Gupta | NULL
                           | 50000 | 2022-01-20 |
| 4 | Anjali Mehta | 3
                        | 80000 | 2019-09-13 |
| 5 | Ravi Desai | 1
                       | 72000 | 2021-06-07 |
Table: departments
| id | name
|----|
| 1 | HR
| 2 | IT
| 3 | Marketing |
| 4 | Finance |
Table: projects
| id | name
              | start_date | end_date | | |
|---|---|---|---|
| 1 | Recruitment App| 2021-01-01 | 2021-06-30 |
| 2 | Website Redo | 2022-03-15 | 2022-10-15 |
| 3 | ERP Upgrade | 2020-05-10 | NULL
Table: employee_project
| employee_id | project_id |
|-----|
| 1
       | 1
| 1
       | 2
```

Tasks (All Practical — SQL to be written and executed)

Task 1: Data Retrieval (20 Marks)

- 1. Write a query to get names of employees with salary > 65000.
- 2. Write a query to fetch employee names along with their department name.
- 3. Get a list of all departments and count of employees in each.
- 4. List all employees who are not assigned to any department.

Task 2: Join and Aggregations (30 Marks)

- 5. Fetch employee names with their assigned project names using joins.
- 6. List the number of projects handled by each employee.
- 7. Get department-wise average salary of employees.

Task 3: Subqueries and Date Functions (30 Marks)

- 8. Fetch names of employees who joined before Jan 2021.
- 9. List employees working on more than 1 project.
- 10. Get the latest joined employee in each department.

Task 4: DDL / DML / Bonus (20 Marks)

- 11. Write a query to add a new column 'email' in 'employees' table.
- 12. Insert a new department named "Operations".
- 13. Write a query to delete all employees with salary less than 55000.
- 14. (Bonus) Create a view named `employee_summary` that shows: employee name, department name, total assigned projects.