Answer Script

Question No. 01
Create the employees table without constraints

Answer No. 01

```
CREATE DATABASE exam;
use exam;
create table employees(
        employee_id INT,
   first_name VARCHAR(10),
   last_name VARCHAR(10),
   email VARCHAR(10),
   phone_number CHAR(11),
   hire_date DATETIME,
   job_id INT,
   salary INT
);
```

Question No. 02
Create the employees table with proper constraints

Answer No. 02

```
CREATE DATABASE exam;
use exam;
create table employees(
        employee_id INT PRIMARY KEY,
   first_name VARCHAR(10) NOT NULL,
   last_name VARCHAR(10) NOT NULL,
   email VARCHAR(10) UNIQUE,
   phone_number CHAR(11) NOT NULL,
   hire_date DATETIME NOT NULL,
   job_id INT NOT NULL UNIQUE,
   salary INT NOT NULL
);
```

Question No. 03
Show all of employee table
Answer No. 03
SELECT * FROM employees;

Question No. 04
Show the first names and salaries of employee who has last name "king"
Answer No. 04
USE hr; SELECT first_name, salary FROM employees WHERE last_name = "king";

Question No. 05
Show the first names and last names of the employees who has salary greater than 2000
Answer No. 05
USE hr; SELECT first_name, last_name FROM employees WHERE salary > 2000;

Question No. 06
Show the employee names and salaries who earns more than average salary.
Answer No. 06

```
SELECT CONCAT(first_name, ' ', last_name) AS employee_names, salary
FROM employees
WHERE salary > (
        SELECT
                AVG(salary)
        FROM
                employees
);
```

Group the employees using job id and show the average and max salary of each job id.

```
SELECT job_id, MAX(salary), AVG(salary)
FROM employees
GROUP BY job_id;
```

```
SELECT *
FROM employees
ORDER BY salary ASC
LIMIT 6 OFFSET 4;
```

Count the employees and total salary

```
SELECT COUNT(job_id), SUM(salary) AS TOTAL_SALARY
FROM employees
```

Question No. 10
Draw an ERD of the HR database
Answer No. 10

Entity Relationship Diagram

countries

country_id (PK)
country_name
region_id (FK)

regions

region_id (PK)
region_name

locations

location_id (PK)
street_address
postal_code
City
state_province
country_id (FK)

departments

department_id (PK)
department_name
manager_id (PK)
location_id (FK)

job_history

employee_id (FK)
start_date
end_date
job_id (FK)
department_id (FK)

employees

employee_id (PK)
first_name
last_name
email
phone_number
hire_date
job_id (FK)
salary
commission_pct
manager_id (FK)
department_id (FK)

jobs

job_id (PK)
job_title
min_salary
max_salary