SQL Assignment: Questions and Answers

1. Create the 'users6' table:

```
DROP TABLE IF EXISTS users6;
CREATE TABLE users6(
    Hospital_Name VARCHAR(50),
    location VARCHAR(50),
    Department  VARCHAR(30),
    Doctors_Count INT,
    Patients_Count INT,
    Admission_Date DATE,
    Discharge_Date DATE,
    Medical_Expenses NUMERIC(10,2)
);
```

2. View all records from the table:

```
SELECT * FROM users6;
```

3. Find the total number of patients across all hospitals:

```
SELECT SUM(patients_count) AS total_patients FROM users6;
```

4. Retrieve the average count of doctors available in each hospital:

```
SELECT hospital_name , AVG(doctors_count) AS Avg_count FROM users6 GROUP BY hospital_name;
```

5. Find the top 3 hospital departments that have the highest number of patients:

```
SELECT hospital_name, department , patients_count FROM users6 ORDER BY patients_count DESC LIMIT 3;
```

6. Identify the hospital that recorded the highest medical expenses:

```
SELECT hospital_name , medical_expenses FROM users6 ORDER BY medical_expenses DESC LIMIT 1;
```

7. Calculate the average medical expenses per day for each hospital:

```
SELECT
    hospital_name,
          AVG(medical_expenses  /  GREATEST(discharge_date  -  admission_date,  1))  AS
```

```
avg_expense_per_day
FROM users6
GROUP BY hospital_name;
```

8. Find the patient with the longest stay:

```
SELECT admission_date , discharge_date ,
    (discharge_date-admission_date) AS stay_of_patients
FROM users6
ORDER BY stay_of_patients DESC
LIMIT 1;
```

9. Count the total number of patients treated in each city:

```
SELECT location AS city, SUM(patients_count) AS total_patients FROM users6 GROUP BY location;
```

10. Calculate the average number of days patients spend in each department:

```
ALTER TABLE users6 ADD COLUMN stay_of_patients INT;
UPDATE users6 SET stay_of_patients = discharge_date - admission_date;
SELECT department, AVG(stay_of_patients) AS avg_day_in_department FROM users6 GROUP BY department;
```

11. Find the department with the least number of patients:

```
SELECT department, SUM(patients_count) AS total_patients
FROM users6
GROUP BY department
ORDER BY total_patients ASC
LIMIT 1;
```

12. Group the data by month and calculate the total medical expenses for each month:

```
SELECT TO_CHAR(admission_date, 'YYYY-MM') AS month,
    SUM(medical_expenses) AS total_expenses
FROM users6
GROUP BY TO_CHAR(admission_date, 'YYYY-MM')
ORDER BY month;
```