

**Question 1:****[8 Marks]**

Employee_ID	First_Name	Last_Name	Age	Department	Salary
1	John	Doe	30	HR	50000
2	Jane	Smith	28	IT	60000
3	Michael	Brown	35	Finance	70000
4	Emily	Davis	32	Marketing	55000
5	David	Wilson	26	IT	62000

Create the table as above with your username and compose the following SQL queries based on the provided table: [2 Marks]

1. Find employees who work in the "IT" department. [1 Marks]
2. Show employees sorted by Age in ascending order. [1 Marks]
3. Count the number of employees in each department. [2 Marks]
4. Find employees who have either 'David' or 'Emily' as FirstName. [2 Marks]

**Question 2:****[12 Marks]**

1. Write a Python program to perform the following tasks.
  - a. Accept 5 integers (use the following numbers: 10, 20, 30, 40, 50) [2 Marks]
    - i. Store them in a list
    - ii. Convert the list into a tuple
    - iii. Find and display the largest and smallest number in the tuple
    - iv. Reverse the tuple and display it
  - b. Take the following string: "this is a python test python is fun": [4 Marks]
    - i. Count the frequency of each word using a dictionary
    - ii. Display the result in sorted order of words.
  - c. Create a list of numbers from 1 to 20 and: [3 Marks]
    - i. Use filter() to get only even numbers
    - ii. Use map() to find the square of each even number
    - iii. Display the final list.
  - d. Create a file named data.txt and: [3 Marks]
    - i. Write the following 5 lines into the file:
      1. I love Python programming
      2. Python is very powerful
      3. Java and C++ are also important
      4. Python is easy to learn

5. This is just a test line
- ii. Read the file and display only those lines which contain the word "Python".

**Note: Write all parts of this question inside a single Python file by creating separate functions such as part\_a(), part\_b(), part\_c(), and part\_d().**

