Here’s a structured list of all your requested questions, grouped by topic, suitable for assignments or practice sets:

### **🔹 Python Questions**

#### **✅ Set Operations**

1. Write a Python program to:  
   * Take input from the user and store it in a set.
   * Add a single element using add().
   * Add multiple elements using update().
2. Write a program to remove duplicates from a list using a set.

#### **✅ Tuple**

1. Write 4 different ways to create a tuple in Python.
2. Access elements from a tuple using:  
   * Indexing
   * Slicing
   * Looping

#### **✅ List**

1. Write a program to show all even numbers from 1 to 100 using a while loop.
2. Write 3 differences between delete and pop() in lists.
3. List out 5 built-in methods of list.

#### **✅ Dictionary**

1. Mention any 5 dictionary methods with examples.

#### **✅ String**

1. List 5 built-in string methods with examples.
2. Write a Python program to replace "Coding" with "India" in the string: "I love Coding".

#### **✅ Class and Object**

1. Create a class in Python with:  
   * Attributes (e.g., name, age)
   * Methods (e.g., display\_info)
   * \_\_init\_\_() method (constructor)
2. What is the difference between a method and a constructor?
3. What is the use of the \_\_init\_\_() method?

#### **✅ Basic Concepts**

1. Define:  
   * Bias
   * Variance
   * Bias-Variance Tradeoff
2. Write a Python program:  
   * Take a number from the user.
   * Check if the number is **prime**.

#### **✅ Real-life Pattern Program**

**Reading Pattern:**

* Input: Pages to read in the first week = 20; Days in month = 30
* Increase by 5 pages per week.
* Output: Total pages read = 1200  
   Write a program to calculate this.

#### **✅ Lottery Ticket Reversal**

Imagine you are a lottery organizer. Each ticket has a 3-digit number. Write a Python program to reverse it.  
 **Input:** 123  
 **Output:** The reversed reward code is: 321

### **🔹 SQL Queries**

1. Write a query to concatenate strings: "MySQL", "is", "Fun".
2. Replace "Coding" with "MySQL" in the sentence: "I Love Coding".
3. Display the number of characters in "I Love India".
4. Extract "Manage" from "Database Management System".
5. Find the position of "base" in "Database Management System".

#### **✅ Math & String Functions in SQL**

1. Round the value of pi (3.14159) to two decimal places.
2. Calculate the remainder when 125 is divided by 8.
3. Display the number of characters in the word 'NewDelhi'.
4. Display the first 5 characters from 'Informatics Practices'.

#### **✅ SQL DDL & DML**

1. Write a query to create two tables and then add a **primary key** to one of them.
2. How to connect two tables using a **foreign key**?
3. Write a query to **update** a value in a table.

#### **✅ SQL Concepts**

* 3 differences between:  
  + **Primary Key vs Foreign Key**
  + **Primary Key vs Unique Key**
* Types of **subqueries**

### **🔹 Power BI DAX Functions**

1. What is the difference between:  
   * MAX and MAXA
   * SUM and SUMX
   * AVERAGE and AVERAGEX
2. Write a DAX measure to calculate:  
   * Average of a column using AVERAGE
   * Row-wise calculation using AVERAGEX

### **🔹 Data Types Summary**

| **Data Type** | **Key Points / Built-in Methods** |
| --- | --- |
| List | append(), pop(), remove(), sort(), reverse() |
| Tuple | count(), index(), slicing, immutable |
| Set | add(), update(), remove(), union(), intersection |
| Dictionary | keys(), values(), items(), get(), update() |
| String | lower(), upper(), replace(), find(), split() |