# Python Practical Programming Questions for Freshers

1. ATM Simulation  
 - Create a program to simulate an ATM where users can:  
 - Check balance  
 - Deposit money  
 - Withdraw money  
 - Exit  
 - Use functions for each operation and implement proper input validation (e.g., insufficient balance for withdrawal).

2. Temperature Conversion Tool  
 - Write a program that converts temperatures between Celsius, Fahrenheit, and Kelvin based on user input.  
 - Use functions for each conversion.

3. Number Guessing Game  
 - Develop a program where the computer generates a random number between 1 and 100, and the user guesses the number.  
 - Provide hints like "Too High" or "Too Low."  
 - Use a loop to allow multiple attempts.

4. Student Grading System  
 - Write a program to calculate and display student grades.  
 - Input: Student's name and marks for 5 subjects.  
 - Output: Total marks, percentage, grade (A/B/C/Fail based on percentage).

5. Shopping Cart  
 - Create a program to simulate a shopping cart:  
 - Add items (item name and price).  
 - View cart items.  
 - Calculate the total price.  
 - Exit.  
 - Use functions and a loop to allow multiple actions.

6. Prime Numbers in a Range  
 - Write a program that takes two numbers as input and prints all the prime numbers in that range.  
 - Use a function to check if a number is prime.

7. Bank Loan Eligibility  
 - Develop a program to check loan eligibility:  
 - Input: Salary, age, and credit score.  
 - Output: Loan approval or rejection with reasons.

8. Multiplication Table Generator  
 - Create a program to generate a multiplication table for any number provided by the user.  
 - Allow the user to specify the range of the table.

9. String Analysis Tool  
 - Write a program to analyze a string:  
 - Count vowels, consonants, digits, and special characters.  
 - Reverse the string and display the result.

10. Bill Splitter  
 - Create a program to split a bill among a group of people:  
 - Input: Total bill amount, number of people, and any tip percentage.  
 - Output: Amount each person has to pay.

11. Password Strength Checker  
 - Develop a program to check the strength of a password:  
 - Criteria: At least 8 characters, includes uppercase, lowercase, digits, and special characters.

12. Pattern Generator  
 - Create a program that generates the following pattern based on user input `n`:  
 \*  
 \*\*  
 \*\*\*  
 \*\*\*\*  
 - Add an option to print the pattern in reverse.

13. Palindrome Checker  
 - Write a program to check if a given string or number is a palindrome.  
 - Allow the user to input multiple values using a loop.

14. Factorial Calculator  
 - Create a program to calculate the factorial of a number using a loop.  
 - Include error handling for negative numbers.

15. Leap Year Checker  
 - Write a program to check if a given year is a leap year.  
 - Allow the user to check multiple years.

16. Odd and Even Separator  
 - Write a program that takes a list of numbers as input and separates them into odd and even lists.

17. Word Counter  
 - Create a program to count the occurrences of each word in a sentence provided by the user.

18. BMI Calculator  
 - Develop a program to calculate BMI:  
 - Input: Weight (kg) and height (m).  
 - Output: BMI value and corresponding category (Underweight, Normal, Overweight, Obese).

19. Find Second Largest Number  
 - Write a program to find the second largest number in a list provided by the user.

20. FizzBuzz Problem  
 - Write a program that prints numbers from 1 to 100, but:  
 - Prints "Fizz" for multiples of 3.  
 - Prints "Buzz" for multiples of 5.  
 - Prints "FizzBuzz" for multiples of both 3 and 5.