Python Beginner Coding Test (40 Coding Questions)

Section A: Data Types & Basic Operations (1–10)

1. Create a variable called `name` and assign it your name. Print it.

2. Create two integer variables and print their sum, difference, product, and division.

3. Write a program to swap two numbers without using a third variable.

4. Write a program that takes user input for age and prints "Adult" if age ≥ 18, otherwise "Minor".

5. Given a string `"programming"`, print the number of times the letter `'g'` appears.

6. Write a program that converts a given string `"100"` to an integer and adds 25 to it.

7. Write a program to find the largest number in the list `[4, 9, 1, 7, 3]`.

8. Write a program to reverse the list `[1, 2, 3, 4, 5]`.

9. Create a dictionary with keys `name`, `age`, and `country`, and print the value of `age`.

10. Write a program to convert a tuple `(2, 4, 6, 8)` into a list and print it.

Section B: Conditional Statements (11–18)

11. Write a program to check whether a number entered by the user is even or odd.

12. Write a program to check if a given number is positive, negative, or zero.

13. Write a program to check if a given year is a leap year.

14. Write a program that takes two numbers and prints which one is greater.

15. Write a program that takes marks as input and prints "Pass" if marks ≥ 50, otherwise "Fail".

16. Write a program that checks whether a character entered by the user is a vowel or consonant.

17. Write a program that takes three numbers and prints the largest among them.

18. Write a program that checks if a number is divisible by both 3 and 5.

Section C: Loops & Nested Loops (19–28)

19. Write a program that prints numbers from 1 to 10 using a `for` loop.

20. Write a program that prints all even numbers from 1 to 20.

21. Write a program that calculates the sum of all numbers from 1 to 100 using a `for` loop.

22. Write a program that prints each letter of the word `"PYTHON"` on a new line.

23. Write a program that counts how many numbers between 1 and 50 are divisible by 5.

24. Write a program that prints all elements of a list using a `while` loop.

25. Write a program that finds the factorial of a given number using a loop.

26. Write a program that prints all numbers between 1 and 30 that are divisible by both 2 and 3.

27. Write a program that prints the squares of all numbers from 1 to 10.

28. Write a program using nested loops to print all pairs `(i, j)` where `i` and `j` range from 1 to 3.

Section D: Functions (29–36)

29. Write a function called `greet()` that prints "Hello, World!".

30. Write a function that takes a name as an argument and prints "Hello, !".

31. Write a function that takes two numbers and returns their sum.

32. Write a function that returns the largest of three numbers.

33. Write a function that takes a list of numbers and returns the sum of all elements.

34. Write a function that checks if a given number is prime.

35. Write a function that takes a list of numbers and returns a new list with only even numbers.

36. Write a function that takes a string and returns the number of vowels in it.

Section E: Classes & Objects (37–40)

37. Create a class `Person` with attributes `name` and `age`, and a method `introduce()` that prints "My name is and I am years old."

38. Create a class `Rectangle` with attributes `length` and `width`, and a method `area()` that returns the area.

39. Create a class `BankAccount` with methods `deposit()`, `withdraw()`, and `check_balance()`.

40. Create a class `Student` with attributes `name` and `marks`, and a method `grade()` that prints "Pass" if marks ≥ 50, otherwise "Fail."