Basic Java Control Statements Programming Questions

1. If-Else Statements

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

2. Check if a number is even or odd using if-else.

3. Find the largest of two numbers.

4. Determine if a person is eligible to vote based on their age.

5. Check if a character is a vowel or a consonant.

6. Write a program to classify a given grade (A, B, C, etc.) based on score ranges.

7. Find the largest of three numbers using nested if.

8. Check if a year is a leap year.

9. Verify if a number is divisible by 5 and 11.

10. Implement a simple calculator using if-else.

2. Switch Statements

11. Create a calculator using switch-case for operations (+, -, *, /).

12. Display the day of the week based on a number (1-7).

13. Write a program to identify the type of a character (vowel, consonant, digit, special).

14. Convert a month number (1-12) to its corresponding name.

15. Check the season (Spring, Summer, etc.) based on the month number.

16. Create a menu-driven program for mathematical operations.

17. Display a grade description (A: Excellent, B: Good, etc.) based on a given grade.

18. Determine the type of triangle based on angles using switch-case.

19. Write a program to convert currency based on user choice.

20. Implement a program for ticket pricing based on user input (child, adult, senior).

3. For Loops

21. Print the first 10 natural numbers.

22. Print the multiplication table of a given number.

23. Calculate the sum of the first n natural numbers.

24. Display the Fibonacci sequence up to n terms.

25. Print all even numbers between 1 and 100.

26. Find the factorial of a number.

27. Write a program to print all prime numbers between 1 and 100.

28. Calculate the sum of digits of a number.

29. Print all Armstrong numbers between 1 and 500.

30. Reverse a given number.

4. While Loops

31. Print the digits of a number in reverse order.

32. Calculate the sum of digits of a number until it becomes a single digit.

33. Check if a number is a palindrome.

34. Find the greatest common divisor (GCD) of two numbers.

35. Display numbers in a given range that are divisible by a specific number.

36. Write a program to find the sum of all even numbers between 1 and n.

37. Generate the first n terms of an arithmetic progression.

38. Implement a simple guessing game.

39. Write a program to count the number of digits in a number.

40. Find the largest digit in a number.

5. Do-While Loops

41. Print the first n natural numbers in reverse.

42. Implement a program to calculate the power of a number using repeated multiplication.

43. Write a program to display a menu and keep the program running until the user chooses to exit.

44. Display a countdown timer starting from a given number.

45. Calculate the average of user-entered numbers until the user inputs -1.

46. Implement a program to simulate a simple ATM system.

47. Generate the sum of squares of first n numbers using a loop.

48. Create a program to determine if a number is a perfect square.

49. Implement a number guessing game that continues until the correct number is guessed.

50. Write a program to display all prime numbers less than a given number.