C++ Assignment Questions (Unique Set)

Section 1: If-Else / Else-If Questions (10 Medium Level)

1. Write a program to check whether a number is divisible by 7 or 11.
2. Write a program to determine if three sides can form a valid triangle.
3. Write a program to calculate the absolute value of a number without using abs(). 4. Write a program to check if a character entered is uppercase, lowercase, digit, or special character. 5. Write a program to compare two strings without using strcmp().
6. Write a program to check if a given number lies between 50 and 100.
7. Write a program to determine the type of roots of a quadratic equation using discriminant.
8. Write a program to find the smallest among three numbers using nested if.
9. Write a program to check whether a number is multiple of both 4 and 6 but not 8.
10. Write a program to print 'Pass' if marks are above 40, 'Grace' if between 35–40, else 'Fail'.

Section 2: Loop Questions (10 Medium Level)

1. Write a program to find the sum of all even numbers between two user-given limits.
2. Write a program to check if a number is a palindrome using a loop.
3. Write a program to print all Armstrong numbers between 1 and 1000.
4. Write a program to find the GCD of two numbers using loops.
5. Write a program to print a pyramid pattern of numbers using nested loops.
6. Write a program to display all factors of a given number using while loop.
7. Write a program to reverse a string using for loop.
8. Write a program to find the sum of series: 1 + 1/2 + 1/3 + ... + 1/n using a for loop.
9. Write a program to count the number of vowels and consonants in a string using a loop.
10. Write a program to find and print all prime numbers between 1 and 200.

Section 3: Function Questions (10 Medium Level)

1. Write a function to return the largest digit in a given number.
2. Write a function to check whether a number is perfect or not.
3. Write a function to calculate the power of a number using loops.
4. Write a function to convert temperature from Celsius to Fahrenheit.
5. Write a function to count vowels in a given string.
6. Write a function to check whether a number is a palindrome or not.
7. Write a function to calculate the sum of first n natural numbers.
8. Write a function to find the second largest element in an array.
9. Write a function to check whether a character is alphabet, digit, or special symbol.
10. Write a function to calculate compound interest using principal, rate, and time.