School of Computing and Data Science
Sai University
Practice Set 1: C++ Basics

Q1. Write a program to read your name and age, and print them in the format: `Hello <name>, you are <age> years old.`

Q2. Read an integer and check whether it is even or odd.

Q3. Take two integers as input and print the larger one using `if-else`.

Q4. Read three integers and print the largest number.

Q5. Take an integer and check whether it is positive, negative, or zero.

Q6. Write a program to print the multiplication table of a given number using a `for` loop.

Q7. Print all numbers from 1 to 100 using a `for` loop.

Q8. Find the sum of the first n natural numbers.

Q9. Find the factorial of a given number n.

Q10. Check whether a given year is a leap year or not.

Q11. Given marks of a student (0–100), print the grade: A ($\geq$90), B (80–89), C (70–79), D (60–69), F (below 60).

Q12. Find the roots of a quadratic equation $ax^2 + bx + c = 0$. (Handle real and imaginary roots using `if-else`.)

Q13. Check whether a number is prime or not.

Q14. Print all prime numbers between 1 and 100.

Q15. Reverse the digits of a given number. (Example: input 1234 $\rightarrow$ output 4321)

Q16. Find the sum of digits of a given number. (Example: input 1234 $\rightarrow$ output 10)

Q17. Generate the Fibonacci series up to n terms.

Q18. Check whether a given number is a palindrome or not. (Example: 121 is palindrome, 123 is not.)

Q19. Write a program to calculate the simple interest. Formula: $SI = \frac{P \times R \times T}{100}$

Q20. Write a program to find the greatest common divisor (GCD) of two numbers using a loop.