SLIIT
Discover Your Future

BSc (Hons) in Information Technology
Year 1

Tutorial 3

IT1010 – Introduction to Programming — Semester 1, 2023

Exercise 1: Revise input and output statements in C

Write a C program to enter the radius of a circle and displays the diameter, the circumference and the area.

Exercise 2: Practice arithmetic operators in C

Write a program that inputs one five-digit number, separates the number into its individual digits and prints the digits separated from one another.

Ex: if user types, 42139, the program should print 4 2 1 3 9

Exercise 3:Practice relational and logical operators in C

Assume i = 1, j = 2, k = 3 and m = 2. What does each of the following statements print?

i. printf("%d", i == 1);
ii. printf("%d", j == 3);
iii. printf("%d", i >= 1 && j < 4);
iv. printf("%d", k + m < j || 3 – j >= k);
v. printf("%d", !m);
vi. printf("%d", !(j – m));

Exercise 4 : Practice flowchart with decisions

Draw a flow chart to

i. Enter the marks for two modules of a student and find the average mark. Display "Pass" if the average is above 45, otherwise display "Fail".

ii. Enter the gender and the age of a person from the keyboard and display "SeniorMale" or "SeniorFemale". Age greater than or equal to 65 is taken as the condition to determine whether a person is a senior citizen.

iii. Enter the mark obtained for IP module and display the grade based on the below criteria.

Mark	Grade
100 >= Mark >= 80	A
79 >= Mark >= 70	B
69 >= Mark >= 45	C
< 45	F