Computer Programming

Lab - 03

Control Structures (Decision making)

Objective : To understand the Control structures, if-else,else-if,conditional statements and case control

Read the following table to understand the instructions for the smooth flow of lab.

Lab time and marks distribution

No#	Topic/Task	Time	Assessment Marks
Topic Demonstration By Instructor : 30 minutes			
1	If-else	5 minutes	0.5
2	If-else	5 minutes	0.5
3	If-else	5 minutes	0.5
4	If-else	5 minutes	0.5
5	Else-if	10 minutes	01
6	Else-if	10 minutes	01
7	Conditional statements	10 minutes	01
8	Conditional statements	10 minutes	01
9	Case control	15 minutes	02
10	Case control	15 minutes	02
		Total Time 2:00 hours	Total Marks: 10

Lab Policy :

- All the students have to do this lab individually
- Anyone doing cheating will be assigned **ZERO** in assessment marks
- All the tasks are mandatory to obtain the assessment marks
- During lab No one is allowed to move outside without permission

Practice Tasks :

Decision Structures:

If-else:

1) Write a program to check whether a number entered by user is even or odd
2) Write a program to find whether a given year is leap year or not [Hint :use % operator].
3) Write a program to read the age of a candidate and determine whether it is eligible for casting his/her own vote
4) Write a program to find maximum between three numbers

Else-if:

5) Write a program that determines a student's grade. The program will read three scores and
determine the grade based on the following rules. [Hint: Use && , || operators]
-if the average score >=90% => grade=A
-if the average score >= 70% and <90% => grade=B
-if the average score>=50% and <70% => grade=C
-if the average score<50% => grade=F
6) Write a code that prompts the user to input three integer values and find the greatest value of the three values.

Conditional statements:

7) Write a program to accept a coordinate point in a XY coordinate system and determine in
which quadrant the coordinate point lies [Hint: Use Trigonometry concepts]
8) Write a program to check whether a number is divisible by 5 and 11 or not

Case Control:

9) Write a program to check whether an alphabet is vowel or consonant using switch case
10) Write a program to create Simple Calculator using switch case. (Operations: + , - , * , / , %)