Institute of Computer Technology

B. Tech. Computer Science and Engineering

Sub : ESFP – II

Practical -3

AIM: To learn about branching, looping and logical operators in C++.

1. Determines a student's grade make a program which will read three types of scores (quiz, mid-term, and final scores) and determine the grade based on the following rules:
   -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

2. Compute the real roots of the equation: $ax^2+bx+c=0$.
   The program will prompt the user to input the values of a, b, and c. It then computes the real roots of the equation based on the following rules:
   -if a and b are zero=> no solution
   -if a is zero=>one root (-c/b)
   -if b2-4ac is negative=>no roots
   -Otherwise=> two roots
   The roots can be computed using the following formula:
   $x1=-b+(b^2-4ac)^{1/2}/2a$
   $x=-b-(b^2-4ac)^{1/2}/2a$

3. Follow the given pattern and write a code for it.

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4. Take n positive numbers as a user input. The program will terminate if one of those number is not positive.