JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -2 EXAMINATION- October 2018
B.Tech (Backlog Students)

COURSE CODE: 13B21CI121   MAX. MARKS: 25
COURSE NAME: Introduction to Computers and Basic Programming
COURSE CREDITS: 03   MAX. TIME: 1.5 Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q. 1. *(5 Marks)*
  I.   *(1 Mark)* Explain with example ++i and i++.
  II.   *(2 Marks)* What do you mean by type casting? Explain with the help of an example.
  III. *(1 Mark)* Differentiate between relational and logical operators used in C?
  IV.   *(1 Mark)* What is goto statement? Write its disadvantages?

Q.2 *(5 Marks)*
  I.   *(2 Marks)* Write a C Program to calculate the factorial of a number.
  II.   *(2 Mark)* Explain the following :
        a) While   b) do-while   c) for
  III. *(1 Mark)* Differentiate between Counter-controlled repetition and Sentinel-controlled repetition .

Q.3 *(5 Marks)* Write a program to find the sum of digits of a positive integer and then check whether the resultant is a prime number or not.

Q.4 *(5 Marks)*
  I.   *(2 Marks)* What is the function? List out advantages and disadvantages of functions.
  II.   *(3 Marks)* Write a function that receives marks received by a student in 3 subjects and returns the average and percentage of these marks. Call the function from main() and print the result in main ().

Q.5 *(5 Marks)*
  I.   *(3 Marks)* Write a program to find the maximum and minimum out of three numbers entered by the users.
  II.   *(2 marks)* write a program to design a calculator using a switch case statement.