

IT 101 : Problem Solving and Computer Programming

Midterm Examination – Remote

Max Time : 40 minutes, Max Marks : 20

Date of Examination : February 09, 2022

Answer ANY TWO questions out of FOUR

Each question carries 10 marks

Note: If you answer more than two, ONLY THE FIRST TWO in sequence will be evaluated.

Q1 :

Write a C program that reads a signed integer from the user and then to print it in reversed order. By using FOR loop only. The program should also print if the given number is a positive/negative and even/odd number or zero. The expected output is as shown below:

Enter an Integer : -12345
The number is a Negative odd number
The number in the reversed order is : -54321

Q2 :

It is desired to compute the sum of the following series consisting of 6 terms.

$$y = 5 - \frac{x}{2!} + \frac{x^2}{3!} - \frac{x^3}{4!} + \frac{x^4}{5!} - \frac{x^5}{6!}$$

Write a C program to compute Y for a given value of x which is of type 'double'. The program should print the following using.

- The value of x
- The values of all the 6 individual terms
- The value of y

Q3 :

A user wants to find the area of the circle, area of the triangle and area of the rectangle according to the user's input choice. Write a C program, using the SWITCH statement, to meet this requirement. Ensure to print proper input-output related messages in each case.

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