

Programming Fundamentals

Assignment_01 (A,C)

Date of Issue: 1-Sep-2019

Date of Submission: 5-Sep-2019

Draw the flow chart and write pseudocode for the following program. All problems must be solved on plain paper and must be handwritten. Printed assignment will get you ZERO marks.

Q1. Write down a program that will take two numbers from user and will print the sum, product and difference of these two numbers.

Q2. Get the name of the person from the user and print it 10 times.

Q3. Write down a program that login to Facebook account.

Q4. Design a program to find the largest among three different numbers entered by user.

Q5. Calculate factorial of a given number. The program will keep on getting input from the user and displaying the factorial until the user enters a number below 0.

Q6. Calculate the Interest of a Bank Deposit using the formula:

$$\text{Interest} = \text{Amount} * \text{Year} * \text{rate} / 100$$

Note: Before calculating interest make sure that all the values are +ve otherwise print an error message and ask for the inputs again.

Q7. Determine and Output Whether Number N is Even or Odd.

Q8. Determine Whether a Temperature is Below or Above the Freezing Point. The program will take freezing point once as an input from the user and then will take 10 inputs from the user and will tell whether the input value is below or above freezing point.

Q9. The ATM machines of Auditor Forum Bank contain biometric security features besides conventional PIN control. The customers of Auditor Forum Bank have a choice either to use Card + PIN or Card + Biometric option. Customers of other banks can also withdraw cash from AFB's ATM; however, they can only use Card + PIN option. A customer's card is captured by the machine after three consecutive unsuccessful attempts.

Required:

Prepare a program flowchart showing the process of cash withdrawal from AFB's ATM.

Assume that transactions other than cash withdrawals are not allowed.

Q10. Write a program to read an integer number and print the number of digits in that number, for example if the input is 34 output is 2, if input is 567, the output is 3.

Q11. Strong number is a special number whose sum of factorial of digits is equal to the original number.

For example: 145 is strong number. Since, $1! + 4! + 5! = 145$

Write a program to input number from user and check whether number is Strong number or not.