



## **Assignment - Flowcharts**

**Class:** BS(CS)

**Date:** 04 April, 2022

**Instructor:** Dr. Majid Iqbal Khan

1. Take three numbers as input and print the maximum number among them.
2. Take the year as input and check whether it is leap year or not.  
The year can be evenly divided by 4; If the year can be evenly divided by 100, it is NOT a leap year, unless; The year is also evenly divisible by 400. Then it is a leap year  
Input = 2019    output = It is not a leap year
3. Take a single character as input and check whether it is alphabet, digit or special character.
4. Take three angles of a triangle as input and check whether the triangle is valid or not.
5. Input electricity unit consumed. Flow chart calculates total electricity bill according to the given condition:  
For first 50 units Rs. 0.50/unit  
For next 100 units Rs. 0.75/unit  
For next 100 units Rs. 1.20/unit  
For unit above 250 Rs. 1.50/unit  
An additional surcharge of 20% is added to the bill
6. Take a three digit number as input and print its reverse.  
Input = 542    Reverse = 245
7. Take a number as input and print its Binary value.
8. Take a number as input and print the factorial of the number  
Input = 3    factorial = 6
9. Take a number as input and check whether it is a strong number or not.  
*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,  $1! + 4! + 5! = 145$
10. Design a flow chart that act as a simple calculator i.e. it can be used to perform simple mathematical operation.  
Input\_1: 43  
Input\_2: +  
Input\_3: 7  
Result = 50
11. Take a number as input from user and print its table upto 10
12. Take a number  $n$  as input from user and find sum of all numbers between 1 to  $n$ .  
542 sum is  $5+4+2=11$
13. Take a number  $n$  as input and find the number of digits in the number.  
541 has 3 digits
14. Find those numbers which are divisible by 7 and multiple of 5, between 1500 and 2700 (both included)
15. Take a number as input from and determine if it is prime or not and display it to the user.