# Practice Questions(Flowcharts)

1.Draw a flowchart to swap two numbers without using third variable.

2. Draw a flowchart to input temperature in Fahrenheit and print its equivalent temperature in Celsius.

3. Draw a flowchart to input basic salary of an employee and calculate gross salary where-
TA =5%of Basic Salary
DA = 15%of Basic Salary
HRA=10%of Basic Salary

4. Draw a flowchart to input rate of interest, time and principal amount and calculate Simple Interest. 5. In a town, the percentage of men is x%. The total percentage of men literacy is y% of the total population (where x>=y). Draw a flowchart to print total number of literate men and women if the population of the town is Z (in thousands).

5. Draw a flowchart to input a number and print whether it is positive, negative or zero.

6. Draw a flowchart to input three sides of triangle and check that whether sides make equilateral, isosceles or scalene triangle.

7. Draw a flowchart to calculate the value of F(x) if x has different ranges of value as below.
F(x)=x2+2 if 0<=x<=10
F(x)=x2+2x if 11<=x<=20
F(x)=x3+2x2 if 21<=x<=30
F(x)=0 if x>30

8.Priya would like to withdraw Rs. X from an ATM. The cash machine will only accept the transaction if X is multiple of 5 and Priya's account balance has enough cash to perform the withdrawal transaction (including bank charges). For each successful withdrawal the bank charges Rs. 0.5. Calculate Priya's account balance after attempted successful transaction. Draw a flowchart for same.

9.A certain grade of steel is graded according to the following conditions. Hardness must be greater than 50. Carbon content must be less than 0.7. Tensile strength must be greater than 5600.
The grades are as follows:
Grade is 10 if all three conditions are met.
Grade is 9 if conditions (i) and (ii) are met.
Grade is 8 if conditions (ii) and (iii) are met.
Grade is 7 if conditions (i) and (iii) are met.
Grade is 6 if only one condition is met.
Grade is 5 if none of three conditions are met. Draw a flowchart, if the user gives values of hardness, carbon content and tensile strength of the steel under consideration and display the grade of the steel.

10.Draw a flowchart to print first n odd numbers.

11.Draw a flowchart to print sum of following series.
1 -3 +5 -7 +9…….upto n.
(consider n as an odd number)

12.Draw a flowchart to print sum of digits of an inputted number.

13.Draw a flowchart to print following series.
AA BB CC DD EE……..upto ZZ

14.Draw a flowchart to calculate $x^y$ without using library function pow().

15.Draw a flowchart to print sum of following series.
10 + x/2 + (2*x)/3 + (3*x)/4 + (4*x)/5 +…….upto (n*x)/(n+1).