**Week -3 problem statements**

**P1:**

1. Write a C program to find the given number is even or odd.
2. Write a C program to find largest of the three given number.
3. Write a C program to find whether given number is positive or negative or zero.
4. Write a C program to find all roots (real and equal, imaginary, equal roots of a quadratic equation).

**P2:**

1. Write a C program to find the given two numbers are equal or less than the other or greater than the other.
2. Write a C program to find the whether the given number is divisible by 5 or not.
3. Write a C program to whether given year leap year or not.
4. Write a program to read three integer values from the keyboard and displays the output stating that they are the sides of right-angled triangle

x=a\*a and y=b\*b and z=c\*c

if(a>b&&a>c&&(x==y+ z)) or if(b>a&&b>c&&(y== x+ z)) or if(c>a&&c>b&&z==x+y)

**P3:**

1. Write a C program to find whether the person is eligible to vote or not
2. Write a C program to check whether given character is alphabet, digit or special character.
3. Write a C program to check whether given number is divisible by 5 and 11 or not.
4. An electricity board charges the following rates for the use of electricity:

For the first 200 units: 80 per unit

For the next 100 units: 90per unit

Beyond 300 units: Rs.1.00 per unit

All users are charged a minimum of Rs. 100 as meter charge. If the total amount is more than Rs.400, then an additional surcharge of 15% of total amount is charged. Write a program to read the name of user and number of units consumed and print out the charges with names.

**P4:**

1. Write a C program to find the smallest the three given numbers.
2. Write a C program to check whether triangle is valid or not if angles are given.
3. Write a C program to check whether given character vowel or constant
4. Admission to a professional course is subjects to the following conditions:

(a) Marks in Mathematics>=60

(b) Marks in Physics>=50

(c) Marks in Chemistry>=40

(d) Total in all three subjects>=200 or Total in Mathematics and Physics>=150

Given the marks in the three subjects, write a program to process the applications to list the eligible candidates.

**P5:**

1. Write a C program to find whether given number is even or odd without using else
2. Write a C program to find whether given triangle is scalene or isosceles or equilateral.
3. Write a C program to grades of a student if the marks are given between 0 and 100.
4. A set of two linear equations with two unknowns x1 and x2 is given below: ax1 +bx2=m and cx1+dx2=n The set has unique solution x1 and x2 provided the determinate ad-cb is not equal to zero. Write a program that will read the values of constants a,b,c,d,m and n and compute the values of x1 and x2 .The message ”the value is infinity” should be printed if ad-cb=0.

x1=(m\*d-b\*n)/(a\*d-c\*b); x2=(n\*a-m\*c)/(a\*d-c\*b);