**Assignment\_03**

**1. Write a C program to check whether a number is negative, positive or zero.**  
    Ex:  
    Input:          -45        0        12  
    o/p:         Negative        Zero        Positive  
  
**2. Write a C program to check whether a number is divisible by 5 and 11 or not.**  
    Ex:      
    Input:    45            55  
    o/p:    Not Divisible        Divisible  
  
**3. Write a C program to check whether a number is even or odd.**  
    Ex:  
    Input:    128            171  
    o/p:    Even            Odd  
  
**4. Write a C program to input any character and check whether it is alphabet, digit or special character.**  
    Ex:      
    Input:    A        m        9        @  
    o/p:    Alphabet         Alphabet        Digit        Special character  
  
**5. Write a C program to check whether a character is uppercase or lowercase alphabet.**  
    Ex:      
    Input:    M        k  
    o/p:    Uppercase    Lowercase  
  
**6. Write a C program to print the English word of a digit like (One, Two,Three,......,Nine) if Digit is between 1 to 9,      Otherwise tell whether it's Even or Odd if Digit is greater than 9.**  
    Ex:      
    Input:    8        16        11        -4  
    o/p:    Eight        Even        Odd        Negative  
  
Note: output should be negative if input is less than Zero  
  
**7. Write a C program to enter month number and print total number of days in month. (Excluding Leap Year)**  
    Ex:      
    Input:    6            7  
    o/p:    30 Days            31 Days  
  
**8. Write a C program to input angles of a triangle and check whether triangle is valid or not.**   
    Ex:      
    Input:    30,  60,  90          45, 45,  100  
    o/p:    Valid            Invalid  
  
**10. Write a C program to calculate the Area of two rectangles and print the length and breadth of the rectangle whose**  
**Area is greater.**  
    Input format: length and breadth of two rectangles respectively.  
    output: length and breadth of rectangle whose area is greater.  
   
**11.Write a C program to find all roots of a quadratic equation.**  
    Ex:    Input  
        Input a: 8  
        Input b: -4  
        Input c: -2  
    o/p:    Root1: 0.80    Root2: -0.30  
  
**12. Write a C program to check whether triangle is equilateral, scalene or isosceles  
    Input: all side's Length**  
  
    Ex:    side1        side2        side3        Triangle  
     1.    30        30        30        Equilateral  
                         2.    12        6        8        Scalene  
     3.    8        8        10        Isosceles  
  
  
**13. Write a C program to input electricity unit charges and calculate 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  
  
    Ex:  
        Unit    Bill  
    1.    50    30.00  
    2.    120    93.00  
    3.    256    274.80  
    4.    12    7.20  
  
  
**14. Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics        and Computer.**  
**Calculate percentage and grade according to following:**  
  
    Percentage >= 90% : Grade A  
    Percentage >= 80% : Grade B  
    Percentage >= 70% : Grade C  
    Percentage >= 60% : Grade D  
    Percentage >= 40% : Grade E  
    Percentage < 40% : Grade F  
  
    Ex:  
    Input  
    Input marks of five subjects: 95  
    95  
    97  
    98  
    90  
    o/p:   Percentage = 95.00    
               Grade A  
  
**15. Write a C program to check even or odd using bitwise operator.**  
    Ex:    Input        output  
        12        12  is Even  
        17        17 is Odd