ASSIGNMENT – 13 – C language

(Q1) Write a Program which takes the month number as an input and Display number of days in that month.

```
#include<stdio.h>
  int main()
{ int n;
  Printf("Enter month_number (1-12)");
  Scanf("%d", &n);

  Switch(n)
  { Case 1:
    Case 3;
    Case 5;
    Case 7:
    Case 8:
    Case 10:
    Case 12:
    Printf("Number of days : 31 \n");
     Break;
    Case 4;
    Case 6:
    Case 9:
    Case 11:
    Printf("number of days : 30 \n");
     Break;
    Case 2:
    Printf("number of days : 28/29 \n");
      Break;
    Default:
    Printf("Invalid month. number");
}  return 0;
```

(Q2) Write a menu driven programe with the following options. (2)

(a) Addition.
(b) Subtraction
(c) Multiplication
(d) Division
(e) Exit.

```
#include<stdio.h>
int main()
{ char choice;
  float num1, num2, result;
  Printf("menu\n");
  Printf("a. Addition\n");
  Printf("b. Subtraction\n");
  Printf("c. Multiplication\n");
  Printf("d. Division\n");
  Printf("e. exit\n");
  Printf("Enter a choice (a-e)");
  Scanf("%c", &choice);
  Switch(choice)
    { [redacted]
      Case 'a':
      Printf("Enter two number");
      Scanf("%f %f", &num1, &num2);
      result = num1+ num2;
      Printf("Addition of two number: %f", result);
      break;

      Case 'b':
      Printf("Enter two number");
      Scanf("%f %f", num1, num2);
      result = num1 - num2;
      Printf("Subtraction of two number: %f", result);
      break;
```

```
Case 'c':
Printf("Enter two number");
Scanf("%f %f", num1, num2);
result = num1 * num2;
Printf("multiplication of two number : %f", result);
  Break;

Case 'd':
Printf("Enter two number");
Scanf("%f %f", num1, num2);
  if (num2 != 0)
  {
    result = num1 / num2;
    Printf("division of two number : %f", result);
  }
  else
    Printf("error : denominator is not equal to 0");

    Break;

Case 'e':
Printf("exit Program");
  Break;
default:
Printf("Invalid Choice");

}
  return 0;

}
```

input of a week and display a unique greeting message (4)
for the day.

```
#include <stdio.h>
int main()
{ int choice;
  Printf("Enter a day number (1-7)");
  Scanf("%d", &choice);
 Switch(choice)
{ ~~Case 1:~~ Case 1:
        Printf("Sunday : A funday\n");
         Break;
       Case 2:
        Printf("Monday: going to office after weekend\n");
          Break;
       Case 3:
        Printf("Tuesday: a normal day\n");
         Break;
       Case 4:
        Printf("Wednesday: a working day\n");
         Break;
       Case 5:
        Printf("Thursday: a Boring day\n");
         Break;
      Case 6:
       Printf("Friday: a excited day\n");
        Break;
       Case 7:
        Printf("Saturday: a weekend start\n");
         Break;
       default
        Printf("Invalid choice);
} return 0;
```

(Q4) Write a menu driven program with the following options:

a. Check wheather a given set of three numbers are lengths of an isosceles triangle or not

b. Check wheather a given set of three numbers are lengths of sides of a right angled triangle or not.

c. Check wheather a given set of three numbers are equilateral triangle or not.

d. Exit

```
#include <stdio.h>
#include <stdlib.h>
int main()
{
    int a, b, c;
    char choice;
while(1) {
Printf("menu\n");
Printf("a. check if three numbers form an isoceles triangle \n");
Printf("b. check if three numbers form a right angle triangle \n");
Printf("c. check if three numbers form an equilateral triangle \n");
Printf("d. Exit \n");
Printf("Enter a choice (a-d)");
Scanf("%c", &choice);
Switch(choice) {
Case 'a':
Printf("Enter the three side lengths");
Scanf("%d %d %d", &a, &b, &c);
If(a==b || b==c || c== a)
Printf("These lengths form a isosceles tringle \n");
else
Printf("These lengths do not form a isosceles triangle. \n");
Break;
```

```
Case 'b':
 Printf("Enter the three side lengths: ");
 Scanf("%d %d %d", &a, &b, &c);

 If(a*a==b*b+c*c || b*b == c*c + a*a || c*c == a*a + b*b)
   Printf("These lengths form a right-angle triangle);
else
  Printf("These lengths do not form a right-angle triangle);
   Break;

Case 'c':
 Printf("Enter the three side lengths");
 Scanf("%d %d %d", &a, &b, &c);

 If(a==b && b==c)
 Printf("These lengths form an equilateral triangle");
 else
  Printf("These lengths do not form an equilateral triangle");
   Break;

Case 'd':
 Printf("Program exit\n");
  exit(0);

default:
Printf("Invalid choice. Plz try again\n");

}

} return 0;

}
```