Assingment - 9

(1) WAP which takes the month number as an input and display number of days in that month.

Ans -

```
#include <stdio.h>
int main()
{   int month;
/* Input month number from user */
printf("enter month number (1-12):")
Scanf("%d", &month);
Switch (month)
{ Case 1:
        printf("31 days");
        break;
Case 2:
        printf("28/29 days");
        break;
Case 3:
        printf("31 days"); break;
Case 4:
        printf("30 days");
        break;
Case 5:
        printf("31 days");
        break;
Case 6:
        printf("30 days");
        break;
Case 7:
        printf("31 days");
        break;
Case 8:
```

```
        printf("31 days");
            break;
    Case 9:
            printf("30 days");
            break;
    Case 10:
            printf("31 days");
            break;
    Case 11:
            printf("30 days");
            break;
    Case 12:
            printf("31 days");
            break;
    default:
            printf("Invalid input")
    }
            return 0;
    }
```

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

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

```
# include<stdio.h>
# include<stdlib.h>
```

```
int main( )
{ int x, a, b;
printf("\n enter your choice");
Scanf("%d", &x);
Switch(x)
{
Case1:
      printf("enter two numbers");
     Scanf("%d %d", &a, &b);
     printf("Sum is %d", a+b);
      break;
Case 2:
      printf("enter two numbers");
      Scanf("%d %d", &a, &b);
      printf("Difference is %d", a-b);
      break;
Case 3:
      printf("enter two numbers");
      Scanf("%d %d", &a, &b);
      printf("product is %d", axb);
        break
Case 4:
      printf("enter two numbers");
      Scanf("%d %d", &a, &b)
      printf("Division is %d", a/b);
Case 5:
  printf(exit)(0);
```

(5) Convert the following if-else-if construct into switch case ;

Ans

```
#include<stdio.h>
int main()
{ int x
Switch(x)
{
Case == 1
        printf(" good");
          break;
Case == 2
        printf(" better");
          break;
Case == 3
        printf(" best");
        break;
default:
        printf(" invalid");
```

(6) Program to check whether a year is a leap year or not. Using ~~Switch~~ Switch statement.

Ans

```
#include<stdio.h>
int main() {
int y, r ;
// y value of the year

printf("---- Enter the year ---\n");
Scanf("%d", &y);
```

```
r = y%400 == 0 || y%100 == 0 || y%4 == 0;

Switch (r) {
Case 1:
        printf("\n%d is the leap yeer.\n", y);
        break;
Case 0:
        printf("\n%d is not the leap year.\n", y);
        break;
default:
        printf ("\n %d is not the leap year.\n", y);
}
    return 0;
}
```

(8) Program to Convert a positive number into a negative number and negative number into a positive number Using Switch Statement.

Ans.

```
# include <stdio.h>
int main()
{
int num;
      printf("enter a number");
      Scanf("%d", &num);
Switch (num>0)
{
  Case 1 : printf("number is negative -%d", num);
           break;
```

```
Case 0: if (num<0)
{
    printf("number is positive %d", -num);
}
 else
{ printf("number is zero %d", num);
    break;
}
    return 0;
}
```

(9) Convert a even number into its upper nearest odd number.

Ans

```
#include<stdio.h>
int main()
{
int num, r;
printf("enter a number");
Scanf("%d", &num);
r= num % 2 == 0;
Switch(r) {
 Case 1:
     printf("%d", num+1);
   break
 Case 0;
     printf("invalid");
     break;
}
  return 0;
}
```

(3) Write a program which takes the day number of a week and displays a unique greeting message of the day.

Ans-

```
int main()
{ int day = 1;
  Switch (x)
{
  Case 1 : printf ("Today is Monday");
           break;
  Case 2 : printf ("Today is Tuesday");
           break;
  Case3 : printf ("Today is Wed);
          break;
  Case 4: printf (" Today is Thus");
          break;
  Case 5: printf (" Today is friday");
          break;
  Case 6: printf (" Today is Saturday");
          break;
  Case 6: printf (" Today is Sunday");
          break;
```

(4) Program to take the Value from the user as input electricity unit charges and calculate total electricity bill according to the given condition. Using the Switch Statement.

-> For the 50 units Rs. 0.50/unit
For the next 100 units Rs. 0.75/unit
For the next 100 units Rs. 1.20/unit
For units above 250 Rs. 1.50/unit
An additional Surchage of 20% is added to the bill.

Ans-

```
int main()
{ int x, amount = 0 , total = 0;

 printf(" enter a value");
 Scanf("%d", &x);
Switch (x<=50)
{
 Case 1 : amount = x * 0.5;
          break;
 Case 0 : Switch (x<=150)
          {
          Case 1 : amount = 25 +(x-50) * 0.75;
                   break;
          Case 0 : Switch (x<=250)
                   {
                   Case 1 : amount = 100+(x-150) * 1.20;
                            break;
                   Case 0 : amount = 220 +(x-250) * 1.5;
                            break;
                   } break;
          }
}
  total = amount + amount * 0.20;
   printf("Total amount = %f", total);
   return 0;
}
```

(4) Write a menu driven program with the following options.
(a) check whether a given set of three numbers are lengths the an isosceles triangle or not
(b) — " — right angled triangle or not.
(c) — " — equilateral triangle or not
(d) exit

Ans

```
int main( )
{int choice, a, b, c
 printf (" enter ur choice\n");
printf ("1 To check isosceles Triangle\n");
printf ("2 To check Right angle Triangle\n");
printf ("3 To check equilateral Triangle\n");

Scanf ("%d", &choice);
printf ("enter length of 3 sides of Triangle\n");
Scanf ("%d %d %d", &a, &b, &c);

Switch (choice)
{
  Case 1: if(a==b || b==c || c==a)
            printf ("isosceles");
          else
            printf (" Not an isosceles");
  Case 2: if(a*a == b*b + c*c || b*b == c*c + a*a || c*c
            = a*a + b*b)
          printf (" Right Triangle");
          else
            printf ("Not a Right Triangle");
          break;
```

```
Case 3 : if((a == b) && (b == c))
         printf ("equilateral Triangle");
         else
             printf ("Not an equilateral Triangle");

         default :
                 printf ("invalid");
         }
    }

    return 0;
}
```