ASSIGNMENT - 03

Q1. Display multiple variables.

a+c ,x+c ,dx+x ,a+x, s+b, ax+b, s+c, ax+c,ax+ux

```
#include <stdio.h>
int main(){

        int a = 125, b = 12345;
       long ax = 1234567890;
       short s = 4043;
       float x = 2.13459;
      double dx = 1.1415927;
      char c = 'W';
     unsigned long ux = 2541567890;
     printf("a + c =  %d\n", a + c);
     printf("x + c = %f\n", x + c);
    printf("dx + x = %f\n", dx + x);
    printf("a + x = %f\n", a + x);
    printf("s + b =  %d\n", s + b);
    printf("ax + b = %ld\n", ax + b);
   printf("s + c =  %hd\n", s + c);
   printf("ax + c = %ld\n", ax + c);
   printf("ax + ux = %lu\n", ax + ux);
  return 0;}
```

OUTPUT :

```
a + c =  212
x + c = 89.134590
dx + x = 3.276183
a + x = 127.134590
s + b =  16388
ax + b = 1234580235
s + c =  4130
ax + c = 1234567977
ax + ux = 3776135780
```

Q2. Convert specified days into years , weeks and days.

```
int main()
 {
     int days,years,week;
    days=129;
    printf("Enter the days :");
   scanf("%d",&days);
   years= days/365;
   week =(days%365)/7;
  days =days-((years*365)+(week*7));
  printf("years :%d\n", years);
  printf("week :%d\n", week);
  printf("days :%d\n", days);
  return 0;
}
```

OUTPUT :

```
Enter the days :26
years :0
week :3
days :5
```

Q3. Accept two item's weight (floating points value)and number of purchase(floating points values) and calculate the average value of the items.

```
int main()
 {
     double wi1, ci1, wi2, ci2, result;
     printf("Weight - Item1: ");
     scanf("%lf", &wi1);
     printf("No. of item1: ");
     scanf("%lf", &ci1);
      printf("Weight - Item2: ");
      scanf("%lf", &wi2);
     printf("No. of item2: ");
     scanf("%lf", &ci2);
     result = ((wi1 * ci1) + (wi2 * ci2)) / (ci1 + ci2);
      printf("Average Value = %f\n", result);
      return 0;
}
```

OUTPUT :

```
Weight - Item1: 15
No. of item1: 5
Weight - Item2: 26
No. of item2: 4
Average Value = 19.888889
```

Q4. Create enumerated data type for 7 days and display their values in integer constants.

```
#include <stdio.h>
int main()
{
enum week{Sun, Mon, Tue, Wed, Thu, Fri, Sat};
printf("Sun = %d", Sun);
printf("\nMon = %d", Mon);
printf("\nTue = %d", Tue);
printf("\nWed = %d", Wed);
printf("\nThu = %d", Thu);
printf("\nFri = %d", Fri);
printf("\nSat = %d", Sat);
return 0;
}
```

OUTPUT :

```
Sun = 0
Mon = 1
Tue = 2
Wed = 3
Thu = 4
Fri = 5
Sat = 6
```

Q5. Convert centigrade to Fahrenheit.

```
#include <stdio.h>
int main()
{
    float Fahrenheit , centigrade;
    printf("enter the temperature centigrade : ");
    scanf("%f", &centigrade);
    fahrenheit =(centigrade*9/5)+32;
    printf("%.2f centigrade = %.2f fahrenheit", centigrade,fahrenheit);
   return 0;
}
```

OUTPUT :

```
enter the temperature centigrade : 100
100.00 centigrade = 212.00 fahrenheit
```

Q6. Takes minutes as input , and display the total number of hours and minutes.

```
#include <stdio.h>
int main()
 {
int tot_mins,hrs,mins;
printf("Input minutes: ");
scanf("total minutes%d", &tot_mins);
hrs = (tot_mins / 60);
mins = (tot_mins % 60);
printf("%d Hours, %d Minutes.\n", hrs, mins);
return 0;
}
```

OUTPUT :

```
Input minutes: 546
364 Hours, 26 Minutes.
```

Q7. Print the perimeter of a rectangle to take its height and width as input.

```
int main()
 {
  int POR , width, height;
  printf("Enter the width :");
  scanf("%d", &width);
  printf("Enter the height :");
  scanf("%d", &height);
  POR=2*(width + height);
  printf("perimeter of rectangle :%d", POR);
  return 0;
}
```

OUTPUT :

```
Enter the width :4
Enter the height :6
perimeter of rectangle :20
```

Q8. By using +, /, %= ,>= ,! Operators.

```
int main(){
        int a,b,c;
        printf("Enter the value of a :");
       scanf("%d", &a);
      printf("Enter the value of b :");
      scanf("%d", &b);
      c= a+b;
      printf("a+b =%d\n", c);
       c= a/b;
      printf("a/b =%d\n", c);
      c= a%b;
      printf("a%b =%d\n", c);
     a%=b;
     printf("a= %d\n",a);
    a>=b;
   printf("a>=b %d\n", b);
   printf("%d >= %d is %d \n",a,b, a>=b);
    c= !(a==b);
  printf("!(a==b) =%d\n", c);
  return 0;}
```

OUTPUT :

```
Enter the value of a :8
Enter the value of b :2
a+b =10
a/b =4
a%b =0
c=0
a>=b 2
!(a==b) =1
```

Q9. By using &,|,>>,?:,|| operators.

```
#include <stdio.h>
int main()
 {
    int a = 8, b = 12, c = 15, result,num=212, i;
    printf("Output = %d\n", a&b);
   printf("Output = %d\n", a|b);
   result = (a == b) || (c < b);
   printf("(a == b) || (c < b) is %d \n", result);
   result = (a != b) || (c < b);
   printf("(a != b) || (c < b) is %d \n", result);
   for (i=0; i<=2; ++i)
   printf("Right shift by %d: %d\n", i, num>>i);
   return 0;
}
```

OUTPUT :

```
Output = 8
Output = 12
(a == b) || (c < b) is 0
(a != b) || (c < b) is 1
Right shift by 0: 212
Right shift by 1: 106
Right shift by 2: 53
```

Q10. Find the size of int , float , double and char.

```
#include <stdio.h>
int main()
{
    int intType;
    float floatType;
    double doubleType;
    char charType;
    printf("size of int :%d btyes\n",sizeof(intType));
    printf("size of float :%zu btyes\n",sizeof(floatType));
    printf("size of double :%zu btyes\n",sizeof(doubleType));
    printf("size of char :%zu btye\n",sizeof(charType));
    return 0;
}
```

OUTPUT :

```
size of int :4 btyes
size of float :4 btyes
size of double :8 btyes
size of char :1 btye
```