

ASSIGNMENT 3 ANSWER

NAME –ABHISEK DAS

REGD NO- 2061020020

1. Display multiple variables.

Sample Variables :

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

Declaration :

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;

Program:-

```
#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("value of a+c is= %d\n",a+c);
```

```
printf("value of x+c is= %f\n",x+c);
```

```
printf("value of dx+x is= %f\n",dx+x);
```

```
printf("value of a+x is= %f\n",a+x);
```

```
printf("value of s+b is= %d\n",s+b);
```

```
printf("value of ax+b is= %lu\n",ax+b);
```

```
printf("value of s+c is= %d\n",s+c);  
printf("value of ax+c is= %lu\n",ax+c);  
printf("value of ax+ux is= %lu\n",ax+ux);  
  
return 0;  
  
}
```

Output:-

value of a+c is= 212

value of x+c is= 89.134590

value of dx+x is= 3.276183

value of a+x is= 127.134590

value of s+b is= 16388

value of ax+b is= 1234580235

value of s+c is= 4130

value of ax+c is= 1234567977

value of ax+ux is= 3776135780

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

Program:-

```
#include <stdio.h>

int main() {

    int days,years,weeks;

    printf("enter total days");

    scanf("%d",&days);

    years=days/365;

    weeks=(days%365)/7;

    days=days-((years*365)+(weeks*7));

    printf("no of years %d\n",years);

    printf("no of weeks %d\n",weeks);

    printf("no of days %d\n",days);

    return 0;

}
```

Output:-

enter total days700

no of years 1

no of weeks 47

no of days 6

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

Program:-

```
#include <stdio.h>

int main() {

    float w1,w2,nw1,nw2,avgvalue;

    printf("Enter weight of 1st item: ");

    scanf("%f",&w1);

    printf("no of purchase: ");

    scanf("%f",&nw1);

    printf("Enter weight of 2nd item: ");

    scanf("%f",&w2);

    printf("no of purchase: ");

    scanf("%f",&nw2);

    avgvalue=((w1*nw1)+(w2*nw2))/(nw1+nw2);

    printf("average value of the item is : %f\n",avgvalue);

    return 0;

}
```

Output:-

Enter weight of 1st item: 10

no of purchase: 4

Enter weight of 2nd item: 20

no of purchase: 5

average value of the item is : 15.555555

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

Program:-

```
#include <stdio.h>

enum days{sun,mon,tues,wed,thur,fri,sat};

int main() {

    printf("enum of days :
\n%d\t%d\t%d\t%d\t%d\t%d\t%d\n",sun,mon,tues,wed,thur,fri,sat);

    return 0;

}
```

Output:-

enum of days :

0 1 2 3 4 5 6

5. Converts Centigrade to Fahrenheit.

Program:-

```
#include<stdio.h>

int main(){

    float centigrade ,farenhite ;

    printf("Enter the celcius: ");

    scanf("%f",&centigrade);

    farenhite = (centigrade * 9/5)+32;

    printf("Farenhite of centigrade (%g ) is %g ",centigrade,farenhite);

    return 0;
```

Output:-

Enter the celcius: 45.5

Farenhite of centigrade (45.5) is 113.9

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

Program:-

```
include <stdio.h>

int main() {
    int minutes, hours ;
    printf("Enter total minutes: ");
    scanf("%d",&minutes);
    hours=minutes/60;
    minutes=minutes- (hours*60);
    printf("In hours and minutes: \n%d hours %d minutes",hours,minutes);
    return 0;
}
```

Output:-

Enter total minutes: 68

In hours and minutes:

1 hours 8 minutes

7. Prints the perimeter of a rectangle to take its height and width as input ?

Program:-

```
#include<stdio.h>

int main()
{
    float h,w,p;
    printf("enter height of rectangle : ");
    scanf("%f",&h);
    printf("enter width of rectangle : ");
    scanf("%f",&w);
    p=2*(h+w);
    printf("Perimeter of rectangle is : %g\n",p);
    return 0;
}
```

Output:-

enter height of rectangle : 4

enter width of rectangle : 5

Perimeter of rectangle is : 18

8. By using +, /, %=, >=, ! operators ?

Program:-

```
#include<stdio.h>

int main(){

int a,b,c;

printf("enter a = ");

scanf("%d",&a);

printf("enter b = ");

scanf("%d",&b);

c=a+b;

printf("using + operator value is: %d\n",c);

c=a/b;

printf("using / operator value is: %d\n",c);

c=(a%=b);

printf("using pecentage and operator value is: %d\n",c);

c=(a>=b);

printf("using >= operator value is: %d\n",c);

c=!(a=b);

printf("using ! operator value is: %d\n",c);

return 0;

}
```

Output:-

enter a = 5

enter b = 5

using + operator value is: 10

using / operator value is: 1

using percentage and operator value is: 0

using >= operator value is: 0

using ! operator value is: 0

9. By using &, |, >>, ?:, || operators.?**Program:-**

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

```
int main()
```

```
{
```

```
int a,b,c ;
```

```
printf("enter a : ");
```

```
scanf("%d",&a);
```

```
printf("enter b : ");
```

```
scanf("%d",&b);
```

```
c=(a&b);
```

```
printf(" &value of a and b is : %d\n",c);
```

```
c=(a|b);
```

```
printf(" | value of a and b is : %d\n",c);
```

```
c=(a>>2);
```

```
printf("right shift(>>2) value of a is : %d\n",c);  
c=(b>>2);  
printf("rightshift(>>2) value of b is : %d\n",c);  
c=(a<=b)?printf("c is greater than a :\ncorrect\n"):printf("wrong\n");  
c=(a<=b||a>b);  
printf(" || value of a and b is : %d\n",c);  
return 0;  
}
```

Output:-

enter a : 9

enter b : 8

&value of a and b is : 8

| value of a and b is : 9

right shift(>>2) value of a is : 2

rightshift(>>2) value of b is : 2

wrong

|| value of a and b is : 1

10. Find the Size of int, float, double and char ?

Program:-

```
#include<stdio.h>

int main()
{
    int i;
    float f;
    char c;
    double d;
    printf("Enter character value : ");
    scanf("%c",&c);
    printf("Size of character is %lu in bytes\n",sizeof(c));
    printf("\nEnter integer value : ");
    scanf("%d",&i);
    printf("Size of integer is %lu in bytes\n",sizeof(i));
    printf("\nEnter float value : ");
    scanf("%f",&f);
    printf("Size of float is %lu in bytes\n",sizeof(f));
    printf("\nEnter double value : ");
    scanf("%f",&d);
    printf("Size of double is %lu in bytes\n",sizeof(d));
    return 0;
}
```

Output:-

Enter character value : a

Size of character is 1 in bytes

Enter integer value : 10

Size of integer is 4 in bytes

Enter float value : 13.5

Size of float is 4 in bytes

Enter double value : 14.5

Size of double is 8 in bytes