Ex. No 2a

Swap Two Variables using Third Variable

Aim:

To write a C program to swap values between two variables using a third variable.

Algorithm:

i) Start the program.
ii) Declare three variable a, b and c.
iii) Get values for a and b.
iv) Assign the value of ‘a’ to ‘c’.
v) Assign the value of ‘b’ to ‘a’.
vi) Assign the value of ‘c’ to ‘b’.
vii) Display ‘a’ and ‘b’ values.
viii) Stop the program.

Program:

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

void main()
{
  int a,b,c;
  clrscr();
  printf(“\nEnter A Value: ”);
  scanf(“%d”,&a);
  printf(“\nEnter B Value: ”);
  scanf(“%d”,&b);
  c = a;
  a = b;
  b = c;
  printf(“Value in A is %d”,a);
  printf(“Value in B is %d”,b);
  getch();
}
```

Result:

Thus the C program to swap values between two variables using a third variable is executed successfully.

Ex. No 2b

Swap Two Variables without using Third Variable

Aim:

To write a C program to swap values between two variables without using third variable.

Algorithm:

i) Start the program.
ii) Declare two variables a and b.
iii) Get the values for a and b.
iv) Calculate a+b and store the value in a.
v) Calculate a-b and store the value in b.
vi) Calculate a-b and store the value in .
vii) Display ‘a’ and ‘b’ values.
viii) Stop the program.

Program:

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

void main()
{
  int a,b;
  clrscr();
  printf(“\nEnter A Value: ”);
  scanf(“%d”,&a);
  printf(“\nEnter B Value: ”);
  scanf(“%d”,&b);
  a = a + b;
  b = a - b;
  a = a - b;
  printf(“Value in A is %d”,a);
  printf(“Value in B is %d”,b);
  getch();
}
```

Result:

Thus the C program to swap values between two variables without using a third variable is executed successfully.