5.NO: 20

Aim:

Write a **C** program to **interchange** the <u>largest</u> and <u>smallest</u> numbers in the array.

Exp. Name: Write a C program to interchange the Largest and Smallest numbers

Sample Input and Output:

in the array

```
Enter the size of array : 5
Enter 5 integers: 11 44 66 22 99
Interchanging largest value 99 and smallest value 11
After interchange, array elements are: 99 44 66 22 11
```

Source Code:

interchange.c

```
#include<stdio.h>
int main()
   int a[100], size, max, min, maxpos, minpos, i, temp;
   printf("Enter the size of array : ");
   scanf("%d",&size);
   printf("Enter %d integers: ",size);
   for(i=0;i<size;i++)</pre>
   scanf("%d",&a[i]);
   max=a[0];
   min=a[0];
   maxpos=0;
   minpos=0;
   for(i=1;i<size;i++)</pre>
      if(a[i]>max)
         max=a[i];
         maxpos=i;
      }
      if(a[i]<min)</pre>
         min=a[i];
         minpos=i;
      }
   printf("Interchanging largest value %d and smallest value %d",a[maxpos],a[minpo
s]);
   temp=a[maxpos];
   a[maxpos]=a[minpos];
   a[minpos]=temp;
   printf("\nAfter interchange, array elements are: ");
   for(i=0;i<size;i++)</pre>
   printf("%d " ,a[i]);
   printf("\n");
}
```

Test Case - 1
User Output
Enter the size of array : 5
Enter 5 integers: 11 44 66 22 99
Interchanging largest value 99 and smallest value 11
After interchange, array elements are: 99 44 66 22 11

Test Case - 2
User Output
Enter the size of array : 3
Enter 3 integers: 215 315 4
Interchanging largest value 315 and smallest value 4
After interchange, array elements are: 215 4 315

Test Case - 3
User Output
Enter the size of array : 2
Enter 2 integers: 99 999
Interchanging largest value 999 and smallest value 99
After interchange, array elements are: 999 99

Test Case - 4
User Output
Enter the size of array : 4
Enter 4 integers: 101 99 201 401
Interchanging largest value 401 and smallest value 99
After interchange, array elements are: 101 401 201 99