Assignment 7

1.find minimum and maximum number in array.

```
#include<stdio.h>
int main()
{
int arr[5]={3,1,4,2,5};
int max=arr[0];
int min=arr[0];
for(int i=1;i<5;i++)
{
if(arr[i]>max)
{
max=arr[i];
}
if(arr[i]<min)
{
min=arr[i];
}
}
printf("maximun:%d\n",max);
printf("minimum:%d\n",min);
return 0;
}
```

2.Search the given number in array.

```
#include<stdio.h>
int main()
{
int arr[5]={3,1,4,2,5};
int search_num;
printf("Enter a number to search:");
scanf("%d",&search_num);
```

```
for(int i=0;i<5;i++)
{
if(arr[i]==search_num)
{
printf("Number found at index %d\n",i);
return 0;
}
}
printf("Number not found in array\n");
}
```

3.find sum of all numbers.

```
#include<stdio.h>
int main()
{
int arr[5]={1,2,3,4,5};
int sum=0;
for (int i = 0;i<5;i++)
{
sum += arr[i];
}
printf("Sum of all numbers in array:%d\n",sum);
return 0;
}
```

4.find odd and even among the number.

```
#include<stdio.h>
int main()
{
int arr[10];
int n;
printf("Enter the size of the array:");
scanf("%d",&n);
```

```
printf("Enter the elements of the array:");
for(int i=0;i<n;i++)
{
scanf("%d",&arr[i]);
}
printf("odd numbers:");
for(int i=0;i<n;i++)
{
if(arr[i]%2!=0)
{
printf("%d",arr[i]);
}
}
printf("\nEven numbers:");
for(int i=0;i<n;i++)
{
if(arr[i]%2==0)
{
printf("%d",arr[i]);
}
}
return 0;
}
```

5.print alternate elements in array.

```
#include<stdio.h>
int main()
{
int arr[10]={1,2,3,4,5,6,7,8,9,10};
for(int i=0;i<10;i +=2)
{
printf("%d",arr[i]);
```

```
}
return 0;
}
```

6.Accept array and print only prime numbers of array.

```
#include<stdio.h>
int isprime(int num)
{
if(num<=1)return 0;
for (int i = 2; i * i <= num; i++)
{
 if (num % i == 0)return 0;
}
return 1;
}
int main()
{
int n;
printf("Enter the number of elements:");
scanf("%d",&n);
int arr[n];
printf("Enter %d elements:\n",n);
for(int i=0;i< n; i++)
{
scanf("%d",&arr[i]);
}
printf("prime numbers in the array:\n");
for(int i = 0;i<n;i++)
{
if(isprime(arr[i]))
{
printf("%d",arr[i]);
```

```
}
}
return 0;
}
```

7.Take two array and sum in third array.

```
#include<stdio.h>
int main()
{
int arr1[5]={1,2,3,4,5};
int arr2[5]={6,7,8,9,10};
int sum[5];
for(int i = 0;i<5;i++)
{
sum[i]=arr1[i]+arr2[i];
}
printf("sum arr:");
for(int i=0;i<5;i++)
{
printf("%d",sum[i]);
}
return 0;
}
```

8.Merge two array.

```
#include<stdio.h>
int main()
{
int arr1[5]={1,2,3,4,5};
int arr2[5]={6,7,8,9,10};
int merged[10];
for(int i=0;i<5;i++)
{
```

```
merged[i]=arr1[i];
merged[i+5]=arr2[i];
}
printf("merged array:");
for(int i=0;i<10;i++)
{
printf("%d",merged[i]);
}
return 0;
}
```

9.Reverse the given array.

```
#include<stdio.h>
int main()
{
int arr[5]={1,2,3,4,5};
int reversed[5];
for(int i=0;i<5;i++)
{
reversed[i]=arr[4-i];
}
printf("Reversed array:");
for(int i=0;i<5;i++)
{
printf("%d",reversed[i]);
}
return 0;
}
```

10.sort the array.

```
#include <stdio.h>
void sortArray(int arr[], int n) {
 int i, j, temp;
```

```
 for (i = 0; i < n - 1; i++) {
 for (j = i + 1; j < n; j++) {
 if (arr[i] > arr[j]) {
 temp = arr[i];
 arr[i] = arr[j];
 arr[j] = temp;
 }
 }
 }
}
int main() {
 int n;
 printf("Enter the size of the array: ");
 scanf("%d", &n);
 int arr[n];
 printf("Enter %d elements:\n", n);
 for (int i = 0; i < 2; i++) {
 scanf("%d", &arr[i]);
 }
 printf("Original array:\n");
 for (int i = 0; i < n; i++) {
 printf("%d ", arr[i]);
 }
 sortArray(arr, n);
 printf("\nSorted array:\n");
 for (int i = 0; i < n; i++) {
 printf("%d ", arr[i]);
 }
 return 0;
}
```