Assignment-14 (Array)

① WAP to calculate the sum of numbers stored in an Array of size of 10. Take array values from user

```
#include<stdio.h>
int main()
{ int arr[10], sum=0;
  for(int i=0; i<10; i++)
      scanf("%d", &arr[i]);
  for(int i=0; i<10; i++)
      sum=sum+arr[i];
  printf("Sum of given 10 numbers is
      %d", sum);
  return 0;
}
```

② WAP to calculate the average the average of numbers stored in an array of size 10. Take array values from the user.

```
#include<stdio.h>
int main()
{ int arr[10], sum=0;
  for(int i=0; i<10; i++)
      scanf("%d", &arr[i]);
  for(int i=0; i<10; i++)
      sum+=arr[i];
  float avg=sum/10;
  return 0;
}
```

③ WAP to calculate the sum of all even and sum of all odd no., which are stored in an array of size 10, Take array value from user.

```
#include<stdio.h>
int main()
{ int arr[10], even=0, odd=0;
  for(int i=0; i<10; i++)
      scanf("%d", &arr[i]);
  for(int i=0; i<10; i++)
  { if(arr[i]%2==0)
        even+=arr[i];
    else
        odd+=arr[i];
  }
  printf("sum of even is %d", even);
  printf("sum of odd is %d", odd);
  return 0;
}
```

④ WAP to find the greatest numbers stored in an array of size 10. Take array values from the user.

```
#include<stdio.h>
int main()
{
  int arr[10], greatest=-99999;
  printf("Enter 10 numbers");
  for(int i=0; i<10; i++)
      scanf("%d", &arr[i]);
  for(int i=0; i<10; i++)
  {
    if(greatest<arr[i])
        greatest=arr[i];
  }
  printf("The greatest number is
        %d", greatest);
  return 0;
}
```

⑤ WAP to find the smallest number stored in an array of size 10. Take array values from the user.

```
#include<stdio.h>
int main()
{ int arr[10], smallest=99999;
  printf("Enter 10 no.");
  for(int i=0; i<10; i++)
     scanf("%d", &arr[i]);
  for(int i=0; i<10; i++)
  { if(smallest>arr[i])
       smallest=arr[i];
  }printf("smallest no. is %d",
                  smallest);
  return 0;
}
```

⑥ WAP to sort elements of an array of size 10. Take array values from the user using bubble sort method.

```
#include<stdio.h>
int main()
{
  int arr[10];
  printf("Enter 10 numbers");
  for(int i=0; i<10; i++)
     scanf("%d", &arr[i]);
  for(int i=0; i<9; i++)
  { for(int j=i+1; j<10; j++)
    { if(arr[i]>arr[j])
      { arr[i]=arr[i]+arr[j];
        arr[j]=arr[i]-arr[j];
        arr[i]=arr[i]-arr[j];
      }
    }
  }
  printf("Sorted Arrays : ");
  for(i=0; i<10; i++)
     printf("%d ", arr[i]);
  return 0;
}
```

⑦ WAP to find second largest in an array. Take array values from the user.

```
#include<stdio.h>
int main()
{ int arr[10], largest=0, sec_lar=0;
  ~~largest=arr[~~
  for(int i=0; i<10; i++)
     scanf("%d", &arr[i]);
  largest=arr[0];
  for(int i=0; i<10; i++)
  { if(largest<arr[i])
    { sec_lar=largest;
      largest=arr[i];
    }
    else if(sec_lar<arr[i])
    { sec_lar=arr[i];
    }
  }
  printf("Second largest number is
          %d", sec_lar);
  return 0;
}
```

⑧ WAP to find the second ~~largest~~ smallest no. in an array. Take array values from the user.

```
#include<stdio.h>
int main()
{ int arr[10];
  int smallest=0, sec_sm=0;
for(i=0; i<10; i++)
    scanf("%d", &arr[i]);
smallest=arr[0];
for(int i=0; i<10; i++)
{ if(smallest>arr[i])
  { sec_sm=smallest;
    smallest=arr[i];
  }
  else if(sec_sm>arr[i])
  { sec_sm=arr[i];
  }
}
printf("The second smallest no. %d", sec_sm);
return 0; }
```

⑨ WAP to read n number of values in an array and display it in reverse order.

```
#include<stdio.h>
int main()
{ int arr[10], n=10;
  for(int i=0; i<n; i++)
     scanf("%d", &arr[i]);
  for(int j=n; j>=1; j--)
     printf("%d", arr[j]);
}
return 0; }
```

(10) WAP to copy the elements of an array into another array. Take array values from the user.

```
#include<stdio.h>
int main()
{
  int arr[10], arr1[10];
  for(int i=0; i<10; i++)
      scanf("%d", &arr[i]);
  for(int i=0; i<10; i++)
      arr1[i] = arr[i];
  for(int i=0; i<10; i++)
      printf("%d ", arr1[i]);
  return 0;
}
```