**Assignment-14**

1. Write a program to calculate the sum of numbers stored in an array of size 10. Take

array values from the user.

Ans- #include<stdio.h>

int main()

{

int a[10],i,sum=0;

printf("enter 10 elements: ");

for(i=0;i<=9;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<=9;i++)

{

sum=sum+a[i];

}

printf("sum of numbers is %d",sum);

return 0;

}

2. Write a program to calculate the average of numbers stored in an array of size 10.

Take array values from the user.

Ans- #include<stdio.h>

int main()

{

int a[10],i,sum=0;

float avg;

printf("enter 10 elements: ");

for(i=0;i<=9;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<=9;i++)

{

sum=sum+a[i];

}

avg=sum/10.0;

printf("Average is %f",avg);

return 0;

}

3. Write a program to calculate the sum of all even numbers and sum of all odd

numbers, which are stored in an array of size 10. Take array values from the user.

Ans- #include<stdio.h>

int main()

{

int a[10],i,sumodd=0,sumeven=0;

float avg;

printf("enter 10 elements: ");

for(i=0;i<=9;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<=9;i++)

{

if(a[i]%2==0)

sumeven=sumeven+a[i];

else

sumodd=sumodd+a[i];

}

printf("\nsum of all even number is %d",sumeven);

printf("\nsum of all odd number is %d",sumodd);

return 0;

}

4. Write a program to find the greatest number stored in an array of size 10. Take array

values from the user.

Ans- #include<stdio.h>

int main()

{

int a[10],i;

float avg;

printf("enter 10 elements: ");

for(i=0;i<=9;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<=8;i++)

{

if(a[i]>a[i+1])

a[i+1]=a[i];

}

printf("\nGreatest element in the array %d",a[i]);

return 0;

}

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

Ans- #include<stdio.h>

int main()

{

int a[10],i;

float avg;

printf("enter 10 elements: ");

for(i=0;i<=9;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<=8;i++)

{

if(a[i]<a[i+1])

a[i+1]=a[i];

}

printf("\nSmallest element in the array %d",a[i]);

return 0;

}

6. Write a program to sort elements of an array of size 10. Take array values from the user.

Ans- #include<stdio.h>

void swap(int\*,int\*);

int main()

{

int a[100],min,n,i,index,j;

printf("enter size of an array");

scanf("%d",&n);

printf("enter the elements");

for(i=0;i<n;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<n-1;i++)

{

for(j=0;j<n-1-i;j++)

{

if(a[j]<a[j+1])

swap(&a[j],&a[j+1]);

}

}

printf("Array elements in descending order\n");

for(i=0;i<n;i++)

{

printf("%d ",a[i]);

}

return 0;

}

void swap(int \*p,int \*q)

{

int temp;

temp=\*p;

\*p=\*q;

\*q=temp;

}

7. Write a program to find second largest in an array. Take array values from the user.

Ans- #include<stdio.h>

void swap(int\*,int\*);

int main()

{

int a[100],min,n,i,index,j;

printf("enter size of an array");

scanf("%d",&n);

printf("enter the elements");

for(i=0;i<n;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<n-1;i++)

{

for(j=0;j<n-1-i;j++)

{

if(a[j]<a[j+1])

swap(&a[j],&a[j+1]);

}

}

for(i=0;i<n;i++)

{

printf("%d ",a[i]);

}

printf("\nSecond largest element in the array is %d",a[1]);

return 0;

}

void swap(int \*p,int \*q)

{

int temp;

temp=\*p;

\*p=\*q;

\*q=temp;

}

8. Write a program to find the second smallest number in an array.Take array values

from the user.

Ans- #include<stdio.h>

void swap(int\*,int\*);

int main()

{

int a[100],min,n,i,index,j;

printf("enter size of an array");

scanf("%d",&n);

printf("enter the elements");

for(i=0;i<n;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<n-1;i++)

{

for(j=0;j<n-1-i;j++)

{

if(a[j]>a[j+1])

swap(&a[j],&a[j+1]);

}

}

for(i=0;i<n;i++)

{

printf("%d ",a[i]);

}

printf("Second smallest element in the array is %d",a[1]);

return 0;

}

void swap(int \*p,int \*q)

{

int temp;

temp=\*p;

\*p=\*q;

\*q=temp;

}

9. Write a program in C to read n number of values in an array and display it in reverse

order. Take array values from the user.

Ans- #include<stdio.h>

int main()

{

int a[10],i,b[10];

printf("enter 10 elements: ");

for(i=0;i<=9;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<=9;i++)

{

b[i]=a[i];

}

printf("\nelements in the array: ");

for(i=0;i<=9;i++)

{

printf("%d ",a[i]);

}

return 0;

}

10. Write a program in C to copy the elements of one array into another array. Take array

values from the user.

Ans- #include<stdio.h>

int main()

{

int a[10],i,b[10];

printf("enter 10 elements: ");

for(i=0;i<=9;i++)

{

scanf("%d",&a[i]);

}

for(i=0;i<=9;i++)

{

b[i]=a[i];

}

printf("\nelements in the array: ");

for(i=0;i<=9;i++)

{

printf("%d ",a[i]);

}

return 0;

}