

01)

```
#include <stdio.h>
int main(){
int arr[] = {40, 30, 7, 100};
int i, n, sum=0;
n = sizeof(arr)/sizeof(arr[0]);
for(i=0; i<n; i++)
    sum += arr[i];
printf("Sum of the elements of the given array is : %d",
sum);
return 0;
}
```

02)

```
#include <stdio.h>
int main(){
int arr[] = {100, 50, 20, 30};
int i, n, sum=0;
n = sizeof(arr)/sizeof(arr[0]);
for(i=0; i<n; i++)
    sum += arr[i];
printf("Average of the elements of the given array is :
%.2f", (float)sum/n);
return 0;
}
```

03)

```
#include <stdio.h>
int main(){
int ages[10];
int i, count=0;
for(i=0; i<10; i++){
    printf("Enter the age of student %d :", i+1);
    scanf("%d", &ages[i]);
    if((12<ages[i])&&(ages[i]<25))
        count++;
}
printf("Number of students whose age is between 12 - 25
is : %d", count);
return 0;
}
```

04)

```
#include <stdio.h>
int main(){
int numArray[5];
int i, largest;
printf("Enter the numbers into the array : ");
for(i=0; i<5; i++){
    scanf("%d", &numArray[i]);
}
largest = numArray[0];
for(i=1; i<5; i++){
    if(largest<numArray[i])
        largest = numArray[i];
}
printf("The largest element of the array is : %d", largest);
return 0;
}
```

05)

```
#include <stdio.h>
int main(){
int numArray[5];
int i, max1, max2;
printf("Enter the numbers into the array : ");
for(i=0; i<5; i++){
    scanf("%d", &numArray[i]);
}
max1 = max2 = 0;
for(i=0; i<5; i++){
    if(numArray[i]>max1){
        max2 = max1;
        max1 = numArray[i];
    }
    else if(numArray[i]>max2 && numArray[i]<max1){
        max2 = numArray[i];
    }
}
printf("The second largest element of the array is : %d",
max2);
return 0;
}
```

06)

```
#include <stdio.h>
int main(){
int arr[5], x, i, j, a;
printf("Enter the numbers into the array :\n");
for(i=0; i<5; i++)
scanf("%d", &arr[i]);
for (i=0; i<5; i++){
for (j=i+1; j<5; j++){
if(arr[i]>arr[j]){
a = arr[i];
arr[i] = arr[j];
arr[j] = a;
}
}
}
printf("The numbers of the array in ascending order :\n");
for(x=0; x<5; x++)
printf("%d\n", arr[x]);
return 0;
}
```

07)

```
#include <stdio.h>
int main(){
int arr[5], x, i, j, a;
printf("Enter the numbers into the array :\n");
for(i=0; i<5; i++)
scanf("%d", &arr[i]);
for (i=0; i<5; i++){
for (j=i+1; j<5; j++){
if(arr[i]<arr[j]){
a = arr[i];
arr[i] = arr[j];
arr[j] = a;
}
}
}
printf("The numbers of the array in descending order :\n");
for(x=0; x<5; x++)
printf("%d\n", arr[x]);
return 0;
}
```

08)

```
#include <stdio.h>
int main(){
int arr[10], odd_arr[10], even_arr[10];
int i,j=0,k=0,n;
printf("Enter the elements :");
for(i=0;i<10;i++){
scanf("%d",&arr[i]);
}
for(i=0;i<10;i++){
if(arr[i]%2==0){
even_arr[j] = arr[i];
j++;
}
else{
odd_arr[k] = arr[i];
k++;
}
}
printf("\nThe Even elements are : \n");
for(i=0;i<j;i++)
printf("%d ",even_arr[i]);
printf("\nThe Odd elements are : \n");
for(i=0;i<k;i++)
printf("%d ",odd_arr[i]);
return 0;
}
```

09)

```
#include <stdio.h>
int main(){
int arr[10], freq[10];
int size, i, j, count;
printf("Enter the elements of the array : ");
for(i=0; i<10; i++){
scanf("%d", &arr[i]);

freq[i] = -1;
}
for(i=0; i<10; i++){
count = 1;
for(j=i+1; j<10; j++){

if(arr[i]==arr[j]){
count++;

freq[j] = 0;
}
}

if(freq[i]!=0){
freq[i] = count;
}
}
for(i=0; i<10; i++){
if(freq[i]!=0){
printf("Frequency of %d : %d times.\n", arr[i], freq[i]);
}
}
return 0;
}
```

10)

```
#include <stdio.h>
int main(){
int arr[3][3], i, j, row_sum, column_sum;
printf("Input the elements of the matrix : \n");
for(i=0; i<3; i++){
for(j=0; j<3; j++){
printf("Element - [%d],[%d] : ", i, j);
scanf("%d", &arr[i][j]);
}
}
row_sum = 0;
for(i=0; i<3; i++){
for(j=0; j<3; j++){
row_sum=row_sum+arr[i][j];
}
printf("Sum of the %d row is = %d\n", i+1, row_sum);
row_sum = 0;
}
column_sum = 0;
for(j=0; j<3; j++){
for(i=0; i<3; i++){
column_sum=column_sum+arr[i][j];
}
printf("Sum of the %d column is = %d\n", j+1,
column_sum);
column_sum = 0;
}
return 0;
}
```