

Assignment – 14

ARRAY INC

Que : 1 Write a program to calculate the sum of numbers stored in an array of size 10. Take array values from the user.

```
#include<stdio.h>

int main()
{
    int arr[10];
    int i ,size ,sum =0 ;
    printf("enter array size : \n");
    scanf("%d",&size);
    printf("enter array elemnts \n");
    for(i =0;i<size;i++){
        scanf("%d",&arr[i]);
    }

    for(i =0;i<size;i++){
        sum = sum +arr[i];
    }
    printf("%d",sum);
    return 0;
}
```

Que : 2 Write a program to calculate 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];
    int i ,size ,sum =0 ;
    printf("enter array size : \n");
    scanf("%d",&size);
    printf("enter array elemnts \n");
    for(i =0;i<size;i++){
        scanf("%d",&arr[i]);
    }

    for(i =0;i<size;i++){
```

```

        sum = sum +arr[i];
    }
    printf("%d\n",sum);
    int avg = (sum/size);
    printf("%d",avg);
    return 0;
}

```

Que : 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.

```

#include <stdio.h>

int evensum(int arr[],int n){
    int sum =0 ;
    for(int i =0 ;i<n;i++){
        if(arr[i]%2==0){
            sum = sum+arr[i];
        }
    }
    return sum;
}

int oddsum(int arr[],int n){
    int sum=0 ;
    for(int i =0 ;i<n;i++){
        if(arr[i]%2!=0){
            sum = sum+arr[i];
        }
    }
    return sum;
}

int main()
{
    int size;
    int arr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
        scanf("%d",&arr[i]);
    }
}

```

```

    int sumeven= evensum(arr,size);
    int sumodd= oddsum(arr,size);

    printf("even sum is %d\n",sumeven);
    printf("odd sum is %d\n",sumodd);

    return 0;
}

```

Que : 4 Write a program to find the greatest number stored in an array of size 10. Take array values from the user.

```

#include <stdio.h>
#include <limits.h>

int main()
{
    int size;
    int arr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
        scanf("%d",&arr[i]);
    }
    int max = arr[0];
    for(int i= 0 ;i<size;i++){
        if(arr[i] > max){
            max = arr[i];
        }
    }

    printf("greatest number is %d",max);

    return 0;
}

```

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

```

#include <stdio.h>

```

```

int main()
{
    int size;
    int arr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
        scanf("%d",&arr[i]);
    }
    int min = arr[0];
    for(int i= 0 ;i<size;i++){
        if(arr[i] < min){
            min = arr[i];
        }
    }

    printf("smallest number is %d",min);

    return 0;
}

```

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

```

#include <stdio.h>

int main()
{
    int size;
    int arr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
        scanf("%d",&arr[i]);
    }

    int a;

    for(int i = 0;i<size;i++){
        for(int j = i+1;j<size;j++){

            if(arr[i]>arr[j]){
                a=arr[i];

```

```

        arr[i]=arr[j];
        arr[j]= a;

    }
}
printf("ascending array ");
for( int i = 0;i< size;i++){
    printf("%d ",arr[i]);
}

return 0;
}

```

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

```

#include <stdio.h>
#include <limits.h>

int main()
{
    int size;
    int arr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
        scanf("%d",&arr[i]);
    }

    int largest = INT_MIN;
    int second = -1;

    for(int i =0 ;i<size;i++){
        if(arr[i]>largest){
            second = largest;
            largest = arr[i];
        }
        else if(second < largest && arr[i]<largest){
            second = arr[i];
        }
    }
}

```

```

    }

    printf("%d",second);

    return 0;
}

```

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

```

#include <stdio.h>
#include <limits.h>

int main()
{
    int size;
    int arr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
        scanf("%d",&arr[i]);
    }

    int smallest = INT_MAX;
    int second = -1;

    for(int i =0 ;i<size;i++){
        if(arr[i]<smallest){
            second = smallest;
            smallest = arr[i];
        }
        else if(second > smallest && arr[i]<smallest){
            second = arr[i];
        }
    }

    printf("%d",second);

    return 0;
}

```

Que : 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.

```
#include <stdio.h>
#include <limits.h>

int main()
{
    int size;
    int arr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
        scanf("%d",&arr[i]);
    }

    for(int i = size-1;i>=0;i--){

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

    }

    return 0;
}
```

Que : 10 : Write a program in C to copy the elements of one array into another array. Take array values from the user.

```
#include <stdio.h>
#include <limits.h>

int main()
{
    int size;
    int arr[10];
    int srr[10];
    printf("enter size of array :");
    scanf("%d",&size);
    printf("enter the elements of the array ");
    for( int i = 0;i< size;i++){
```

```
        scanf("%d",&arr[i]);
    }

    for( int i = 0;i< size;i++){
        srr[i] = arr[i];
    }


    printf("elements in another array with same values : ");
    for(int i = 0;i<size;i++){

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

    }


    return 0;
}
```