

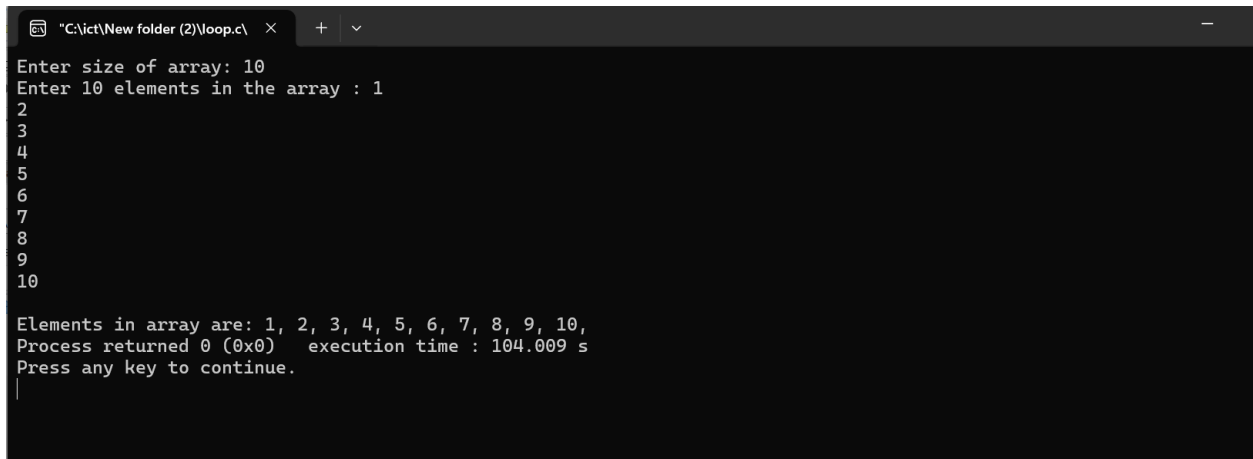
Question 01:

Write a C program to read and print elements of array

Source code:

```
#include <stdio.h>
#define MAX_SIZE 1000
int main()
{
    int arr[MAX_SIZE];
    int i, N;
    printf("Enter size of array: ");
    scanf("%d", &N);
    printf("Enter %d elements in the array : ", N);
    for(i=0; i<N; i++) {
        scanf("%d", &arr[i]);
    }
    printf("\nElements in array are: ");
    for(i=0; i<N; i++)
    { printf("%d, ", arr[i]);
    }
    return 0;
}
```

Output:

A screenshot of a terminal window showing the execution of a C program. The window title is "C:\ict\New folder (2)\loop.c". The program prompts the user to enter the size of the array, which is 10. Then it prompts for 10 elements, which are 1 through 10. The output shows the elements in the array: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. The process returned 0 (0x0) and the execution time was 104.009 s. The prompt "Press any key to continue." is shown at the bottom.

```
"C:\ict\New folder (2)\loop.c" × + ▾
Enter size of array: 10
Enter 10 elements in the array : 1
2
3
4
5
6
7
8
9
10

Elements in array are: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,
Process returned 0 (0x0)   execution time : 104.009 s
Press any key to continue.
```

Question 02:

Write a C program to print all negative elements in an array.

Source code:

```
#include <stdio.h>
#define MAX_SIZE 100
int main()
{
    int arr[MAX_SIZE];
    int i, N;
    printf("Enter size of the array : ");
    scanf("%d", &N);
    printf("Enter elements in array : ");
    for(i=0; i<N; i++)
    {
        scanf("%d", &arr[i]);
    }
    printf("\nAll negative elements in array are : ");
    for(i=0; i<N; i++)
    {
        if(arr[i] < 0)
        {
            printf("%d\t", arr[i]);
        }
    }
    return 0;
}
```

Output:

```
Enter size of array: 6
Enter 6 elements in the array : 1
-6
9
34
-12
-45

Elements in array are: 1, -6, 9, 34, -12, -45,
Process returned 0 (0x0)   execution time : 36.314 s
Press any key to continue.
|
```

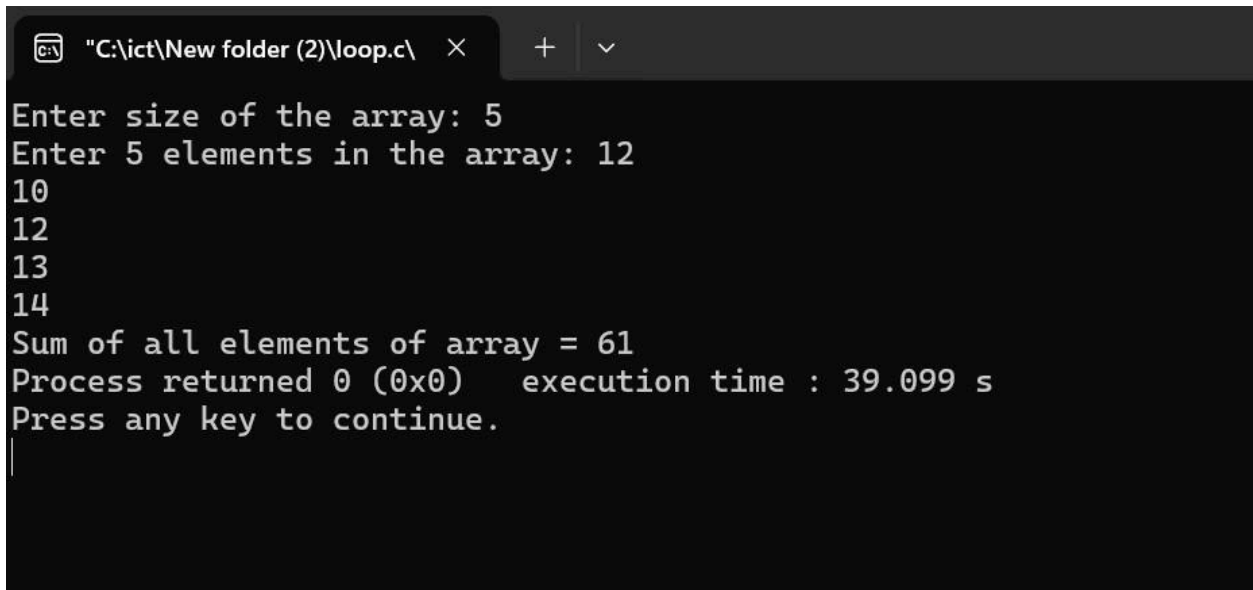
Question 03:

Write a C program to find sum of all array elements.

Source code:

```
#include <stdio.h>
#define MAX_SIZE 100
int main()
{
    int arr[MAX_SIZE];
    int i, n, sum=0;
    printf("Enter size of the array: ");
    scanf("%d", &n);
    printf("Enter %d elements in the array: ", n);
    for(i=0; i<n; i++)
    {
        scanf("%d", &arr[i]);
    }
    for(i=0; i<n; i++)
    {
        sum = sum + arr[i];
    }
    printf("Sum of all elements of array = %d", sum);
    return 0;
}
```

Output:

A screenshot of a Windows command prompt window titled "C:\ict\New folder (2)\loop.c\". The window shows the execution of a C program. The user enters the size of the array as 5, followed by five elements: 12, 10, 12, 13, and 14. The program outputs the sum of all elements as 61. The process returned 0 (0x0) and the execution time was 39.099 seconds. The prompt asks to press any key to continue.

```
"C:\ict\New folder (2)\loop.c\  ×  +  v
Enter size of the array: 5
Enter 5 elements in the array: 12
10
12
13
14
Sum of all elements of array = 61
Process returned 0 (0x0)   execution time : 39.099 s
Press any key to continue.
|
```

Question 04:

Write a C program to find maximum and minimum element in an array. – using recursion.

Source code:

```
#include <stdio.h>
#define MAX_SIZE 100
int main()
{
    int arr[MAX_SIZE];
    int i, max, min, size;
    printf("Enter size of the array: ");
    scanf("%d", &size);
    printf("Enter elements in the array: ");
    for(i=0; i<size; i++)
    {
        scanf("%d", &arr[i]);
    }
    max = arr[0];
    min = arr[0];
    for(i=1; i<size; i++)
    {
        if(arr[i] > max)
        {
            max = arr[i];
        }
        if(arr[i] < min)
        {
            min = arr[i];
        }
    }
    printf("Maximum element = %d\n", max);
    printf("Minimum element = %d", min);
    return 0;
}
```

Output:

```
"C:\ict\New folder (2)\loop.c" × + v
Enter size of the array: 5
Enter elements in the array: 23
45
12
34
56
Maximum element = 56
Minimum element = 12
Process returned 0 (0x0)   execution time : 15.498 s
Press any key to continue.
```

Question 05:

Write a C program to search an element in an array.

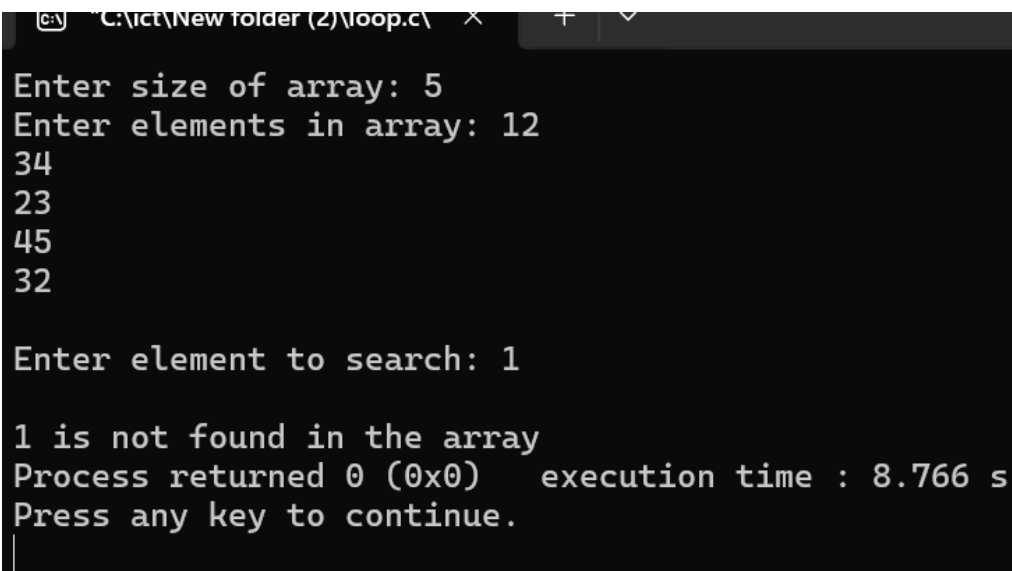
Source code:

```
#include <stdio.h>
#define MAX_SIZE 100
int main()
{
    int arr[MAX_SIZE];
    int size, i, toSearch, found;
    printf("Enter size of array: ");
    scanf("%d", &size);
    printf("Enter elements in array: ");
    for(i=0; i<size; i++)
    {
        scanf("%d", &arr[i]);
    }
    printf("\nEnter element to search: ");
    scanf("%d", &toSearch);
    found = 0;

    for(i=0; i<size; i++)
    {
        if(arr[i] == toSearch)
        {
            found = 1;
            break;
        }
    }
}
```

```
    }  
}  
if(found == 1)  
{  
    printf("\n%d is found at position %d", toSearch, i + 1);  
}  
else  
{  
    printf("\n%d is not found in the array", toSearch);  
}  
return 0;  
}
```

Output:



```
C:\ict\New folder (2)\loop.c  
Enter size of array: 5  
Enter elements in array: 12  
34  
23  
45  
32  
  
Enter element to search: 1  
  
1 is not found in the array  
Process returned 0 (0x0)   execution time : 8.766 s  
Press any key to continue.  
|
```