

NAME: TARUN  
Reg. no.: 18110483

Subject: CSE101

Q.1

```
#include <stdio.h>
int main()
{
    int n, j = 0, i;
    float sum = 0, avg;
    printf("Enter the no. of element");
    scanf("%d", &n);

    int a[n];
    for (i = 0; i < n; i++)
    {
        scanf("%d", &a[i]);
        if ((a[i] % 2) != 0)
        {
            j++;
            sum = sum + a[i];
        }
    }
    avg = sum / j;
    printf("%f", avg);
    return 0;
}
```

```

1  #include <stdio.h>
2
3  int main()
4  {
5      int n,j=0,i;
6
7      float sum=0,avg;
8      printf ("Enter the no of elements");
9
10     scanf("%d",&n); //input for no. of elements in array
11
12     int a[n];
13
14     for(i=0;i<n;i++)
15     {
16         scanf("%d",&a[i]); //get the array
17
18         if((a[i]%2)!=0)
19         {
20             j++; //total no. of odd no's in the array
21             sum=sum+a[i]; //sum of all odd no's in the array
22         }
23     }
24
25     avg=sum/j; //array average
26
27     printf("%f",avg);
28
29     printf("%d",&sum);
30
31     return 0;
32 }

```

C:\Users\TARUN CHOUDHARY\Documents\cse\q1.exe

```

Enter the no of elements5
1
3
2
5
3
3.0000006684108
-----
Process exited after 11.23 seconds with return value 0
Press any key to continue . . .

```

Q-2

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

```
int main()
```

```
{
```

```
int a[100], n, sum, o, i;
```

```
printf("enter the no. of elements");
```

```
scanf("%d", &n);
```

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

```
{
```

```
printf("enter the elements");
```

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

```
}
```

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

```
{
```

```
sum = sum + a[i];
```

```
printf("%d", sum);
```

```
return 0;
```

```
}
```

```

1  #include<stdio.h>
2  int main()
3  {
4  int a[100],n,sum=0,i;
5  printf("Enter the no of elements");
6  scanf("%d",&n);
7
8  for(i=0;i<n;i++)
9  {
10 printf("Enter the elements");
11 scanf("%d",&a[i]);
12 }
13 for(i=0;i<n;i++)
14 {
15 sum=sum+a[i];
16 }
17 printf("%d",sum);
18 return 0;
19 }

```

C:\Users\TARUN CHOUDHARY\Documents\cse\no of variable in one 2.exe

Enter the no of elements6

Enter the elements1

Enter the elements2

Enter the elements3

Enter the elements4

Enter the elements5

Enter the elements6

21

-----

Process exited after 10.32 seconds with return value 0

Press any key to continue . . .



So no.	call by value	call by reference
1.	only a copy of the variable's value is passed to the function	1. The variable value's address is passed to the function.
2.	The modifications made to the value of the passed variable present inside the function will be applicable to the file only. The original values of original values of actual parameters will remain unchanged even though the value of the formal parameter may be changed.	2. Change made to the value of variable inside the function will validate outside the function as well. The original values of actual parameters will change when the value of the formal parameter is altered.
3.	The formal and actual argument will be created at different memory location	3. The formal and actual arguments will be created in the same memory location.

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

```
void swap (int *x, int *y)
```

```
{
```

```
    int temp;
```

```
    *x = *y;
```

```
    *y = temp;
```

```
}
```

```
int main()
```

```
{
```

```
    int a = 20;
```

```
    int b = 30;
```

```
    printf ("before swapping value a and b are %d, %d\n", a, b);
```

```
    swap (&a, &b);
```

```
    printf ("after swapping values a and b are %d, %d\n", a, b);
```

```
    return 0;
```

RESULT :->

before swapping values of a and b are 20, 30

after swapping values a and b are 30, 20.

```

1  #include <stdio.h>
2  void swap ( int *x, int *y)
3  {
4      int temp;
5      *x=*y;
6      *y=temp;
7
8
9  }
10 int main()
11 {
12     int a=20;
13     int b=30;
14     printf("before swapping values of a and b are %d,%d\n",a,b);
15     swap ( &a , &b);
16     printf ("after swapping values a and b are %d,%d\n ",a,b);
17     return 0;
18
19 }

```

C:\Users\TARUN CHOUDHARY\Documents\cse\practical.exe

before swapping values of a and b are 20,30  
after swapping values a and b are 30,0

-----  
Process exited after 9.154 seconds with return value 0  
Press any key to continue . . .



## Static

⇒

The static storage class is used to declare an identifier that is a function or a file and that exists and retains its value after control pass from where it was declared. This storage class has a duration that is permanent. A declared of the class retains its value from one call of function to the next. A variable is known only by the function to the next. The scope is local. A variable is known only by the function it is globally in the file it is on only by the function with in that file. This storage class guarantees that declaration of the variable also initializes the variable to zero.

## Extern.

The extern storage class is used to declare a global variable that will be known to the time in a file and capable of being known to all functions in a program. This permanent any variable of this class retains of this class retains its value until changed by another. In general the scope is global. A variable can be known in seen by all function with in a program.



\* Register values tell the compiler to store the variable in CPU register instead of memory frequently used variable are kept in register and they have faster accessibility we can never get the address of these variable register keyword is used to declare the register values.

Scope  $\Rightarrow$  They are local to the function.

Default value  $\Rightarrow$  Default initialized value is the garbage value

Life time  $\Rightarrow$  Till the end of the execution of the code in which it is defined.

Example  $\Rightarrow$

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

```
int main ()
```

```
{
```

```
register char n = 'S';
```

```
register int a = 10;
```

```
auto int b = 8;
```

```
printf ("The value of register variable b: %c\n", n);
```

```
printf ("The sum of auto and register variable: %d\n", a+b);
```

```
return 0;
```

```
}
```