



All Programs Semester I CAT II – January 2022  
Answer uploading Template

Enrolment / Admission No. of Student	21SCSE1010662	Name of Course	C-programing
Name of Student	Shivam Dharwal	Course Code	BCSOFT1003
Program	B.tech CSE	Date of Examination	16.01.22
Semester	1st	Time	8:00 - 9:40 AM
Signature of Student			

Student shall start writing from below:

Ans.

The answer that apply to a function call are:-  
• To use a function, you will have to call that function to perform the defined task.

• When a program calls a function, the program control is transferred to the called function.

• To call a function, you simply need to pass the required parameters along with function name.

2) Ans

You can also assign one variable to another if both are of the same structure type. This copies all the elements of one structure to the corresponding elements in the other. The following declaration illustrates this: if a structure element is a reference type, such as a string object, or a array, the pointer to that data is copied.

~~Ans~~



3) And #include <stdio.h>

long factorial(int n)

{

if (n == 0)

return 1;

else

return (n \* factorial(n-1));

}

void main()

{

int number;

long fact;

printf("Enter a number:");

scanf("%d", &number);

fact = factorial(number);

printf("factorial of %d is %ld\n", number, fact);

return 0;

}

② output

Enter a number: 5

factorial of 5 is 120

4) Ans.

```
#include <stdio.h>
struct student {
    char name[50],
    int age;
};

// function prototype void display(struct student s);
int main() {
    struct student s1;
    printf("Enter name:");
    scanf("%s", s1.name);
    printf("Enter age:");
    scanf("%d", &s1.age);
    display(s1);
    return 0;
}

void display(struct student s) {
    printf("\n Displaying information\n");
    printf("Name: %s", s.name);
    printf("\n Age: %d", s.age);
}
```

Output

```
Enter name: ChaiGothas
Enter age: 18
Displaying information
Name: ChaiGothas
Age: 18
```



5) Ans.

```
#include <stdio.h>

int main()
{
    int m, n, i, d;
    int first[10][10], second[10][10],
    sum[10][10];
    printf("Enter the number of rows and columns\n of matrix\n");
    scanf("%d %d", &m, &n);
    printf("Enter the elements of first matrix\n");
    for (i = 0; i < m; i++)
        for (d = 0; d < n; d++) scanf("%d", &first[i][d]);
    printf("Enter the elements of second matrix\n");
    for (i = 0; i < m; i++)
        for (d = 0; d < n; d++) scanf("%d", &second[i][d]);
    printf("Sum of entered matrices :-\n");
    for (i = 0; i < m; i++)
        for (d = 0; d < n; d++)
        {
            sum[i][d] = first[i][d] + second[i][d];
            printf("%d\t", sum[i][d]);
        }
    printf("\n");
    return 0;
}
```

5

😊 Output

Enter the number of rows and columns of matrix

3

3

Enter the elements of first matrix

Enter the elements of second matrix

Sum of entered matrices:-



6) Ans.

there are three ways by which the values of structure can be transferred from one function to another they are as follows:

- passing individual members as arguments to the function
- passing the entire structure as an argument to function
- passing the address of structure as an argument to function

Now let's see how to pass individual member of structure elements as arguments to the function

- Each member is passed as an argument in the function ~~set~~ call
- they are collected independently in ordinary variables in the function header

Ex:- Given below is a C program to demonstrate passing individual arguments

of structure to a function:

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

```
struct date {
```

```
    int day;
```

```
    int mon;
```

```
    int yr;
```

```
main() {
```

```
    struct date d = { 02, 01, 2015 }; // struct date d;
```

```
    display(d.day, d.mon, d.yr); // passing individual  
                                mem as argument to  
                                function
```

```
} getch();
```

```
display (int a, int b, int c) {
```

```
    printf ("day = %d\n", a);
```

```
    printf ("month = %d\n", b);
```

```
    printf ("year = %d\n", c);
```

```
}
```

#### • output

When the above program is executed,  
it produces the following result -

day = 2

month = 1

year = 2010