

Practical - 04 (22001212)

01)

```
main.cpp X
1  #include <iostream>
2
3  using namespace std;
4
5  int main()
6  {
7      //Question 01
8      int n,sum=0;
9      cout<<"\nEnter the value for n :";
10     cin>>n;
11     for(int i=1;i<n+1;i++){
12         sum=sum+i;
13     }
14     cout<<"The Sum of the first n Natural Numbers is :"<<sum<<endl;
15 }
```

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```
Enter the value for n :10
The Sum of the first n Natural Numbers is :55
```

02)

```
16 //Question 02
17 cout<<"\n***Multiplication table up to 10***\n";
18 for(int i=1;i<11;i++){
19     for(int j=1;j<11;j++){
20         cout<<j*i<<"\t";
21     }
22     cout<<"\n";
23 }
24
```

Multiplication table up to 10

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

03)

```
25 //Question 03
26
27 cout<<"\nHalf pyramid using *\n"<<endl;
28
29 for(int i=1;i<6;i++){
30     for(int j=1;j<=i;j++){
31         cout<<"*";
32     }
33     cout<<"\n";
34 }
35
```

Half pyramid using *

```
*
**
***
****
*****
```

04)

```
36 //Question 04
37
38 cout<<"\nHalf pyramid using numbers\n"<<endl;
39
40 for(int i=1;i<6;i++){
41     for(int j=1;j<=i;j++){
42         cout<<j;
43     }
44     cout<<"\n";
45 }
46
47
48 return 0;
49 }
50
```

Half pyramid using numbers

```
1
12
123
1234
12345
```

Process returned 0 (0x0) execution time : 1.751 s
Press any key to continue.


C++ Class and Objects

01)

```
1 #include <iostream>
2
3 using namespace std;
4
5 class Car{
6     public:
7     string brand;
8     string model;
9     int year;
10 };
11
```

02)

```
12 class room{
13     public:
14         int l1;
15         int l2;
16         int height;
17     };
18
19 int main(){
20
21     room room1;
22     room1.l1=20;
23     room1.l2=30;
24     room1.height=10;
25
26     cout<<"\nArea of the room : "<<room1.l1*room1.l2<<endl;
27     cout<<"\nVolume of the room : "<<room1.l1*room1.l2*room1.height<<endl;
28     return 0;
29 }
```

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Area of the room : 600

Volume of the room : 6000

Process returned 0 (0x0) execution time : 0.031 s

Press any key to continue.