

What is the expected output of the following snippet? In case of error please encircle the statement and specify what is the error message about. Write your answer in the given space, under each snippet, else it will be marked as **zero**. [2 Marks each =28 marks]

Note: all the code snippet contains #include <iostream> and using namespace std;

<pre>int main() {     int i = 100, j = 30;     if(i &gt; j);         i++;     else         i--;     cout&lt;&lt; "value of i:" &lt;&lt; i;     return 0; }</pre>	<pre>int main() {     char ch='Z';     switch (ch)     {         case 'A':             cout&lt;&lt; "CaseA";         case 65:             cout&lt;&lt; "Case65";         default:             cout&lt;&lt; "Case ";      }     return 0; }</pre>
<p>error: else without an if</p>	<p>error: duplicate case value</p>
<pre>int main() {     int i=0;     if(i==0)     {         int j=50;     } }</pre>	<pre>int main() {     int i = 0, j = 7;     if(i &lt; j);     else         i++ ; }</pre>

<pre>     }     else         int j=5;         cout&lt;&lt; "value of j:" &lt;&lt; j;         return 0; } </pre>	<pre>         cout&lt;&lt; "value of i:" &lt;&lt; i;         return 0;     } </pre>
<b>error: j not declared</b>	<b>value of i:0</b>
<pre> int main() {     int i=1;     for(;;)     {         i=i*5;     }     cout&lt;&lt; "hello world";     return 0; } </pre>	<pre> int main() {     int a=60;     int b=(60-20)+(5*2);     switch( b )     {         case 50:             cout&lt;&lt;"b matches 50";         case a:             cout&lt;&lt;"b matches 60";             break;     }      return 0; } </pre>
<b>prints nothing -&gt;never ending loop</b>	<b>error: a is not a constant</b>
<pre> int main() {     for(int i=0,char c='A';i&lt;10;i++)     { </pre>	<pre> int main() {     int i = 0;     do </pre>

<pre>         cout&lt;&lt;"value of i:"&lt;&lt;i&lt;&lt;endl;     }     return 0; } </pre>	<pre>         cout&lt;&lt; "value of i:"&lt;&lt;i;         i++;         while(i&gt;10);         return 0;     } </pre>
error: two data types in a single statement	error: do without a while
<pre> int second() {     return 1; } int first() {     cout&lt;&lt;"hello ";     return second(); } int main() {     cout&lt;&lt;first(); } </pre>	<pre> int my_code( int a) {     cout&lt;&lt; "hello";     return 0; } void my_code( int b) {     cout&lt;&lt; "world"; } int main() {     int i;     i= my_code();     return 0; } </pre>
output: hello 1	error: same signature
<pre> void my_func(int num) {     num=40;     cout&lt;&lt; num &lt;&lt;" "; } </pre>	<pre> void my_code(char a) {     cout&lt;&lt; "world"; } </pre>

<pre> int main() {      int num =50;     my_func(num) ;     cout&lt;&lt; num;      return 0;  } </pre>	<pre> int main() {      my_code(65) ;     return 0;  } </pre>
<b>Output: 40:50</b>	<b>Output: world</b>
<pre> int main() {      my_code(65) ;     return 0;  }  void my_code(int a) {      cout&lt;&lt; "hello";  } </pre>	<pre> int main() {      int i=1;     cout&lt;&lt; i++ &lt;&lt; "and" &lt;&lt;i;      return 0  } </pre>
<b>Error: my_code not declared</b>	<b>Output: 1 and 2</b>

## Question 2

```

#include <iostream>
using namespace std;

int main()
{
    int y=1;
    int total = 0;
    for (int x=1; x<=5; x++)
    {
        y *= x;
        cout << y << endl;
        total += y;
        if(x%2==0)
            total*=2;
        else
            total/=2;
    }
    cout << "Total is " << total << endl;
    return 0;
}

```

Iteration No	x	total	y	cout Output
Initialization	1	0	1	
1	1	0	1	1
2	2	4	2	2
3	3	5	6	6
4	4	58	24	24
5	5	89	120	120
After for loop				Total is 280

## Question 2

Marks = 10

Write a C ++ program which takes an integer value between 1 and 9 from the user and then prints a number pyramid. For example if the user entered 5, your program should print the following pyramid.

```

1 4 9 16 25
4 9 16 25
9 16 25
16 25
25

```

### Answer

```
#include<iostream>

using namespace std;

void main()
{
    int num;

    cout<<"Enter a Number between 1 and 9"<<endl;
    cin>>num;
    while (num < 1 || num > 9)
    {
        cout<<"Enter the number again"<<endl;
        cin>>num;
    }
    int count=1;
    for (int i=1;i<=num;i++)
    {
        for (int j=count;j<=num;j++)
            cout<<j*j<<" ";

        count++;
        cout<<endl;
    }
}
```

### Question 3

Write the output of the following code:

Marks = 10

```

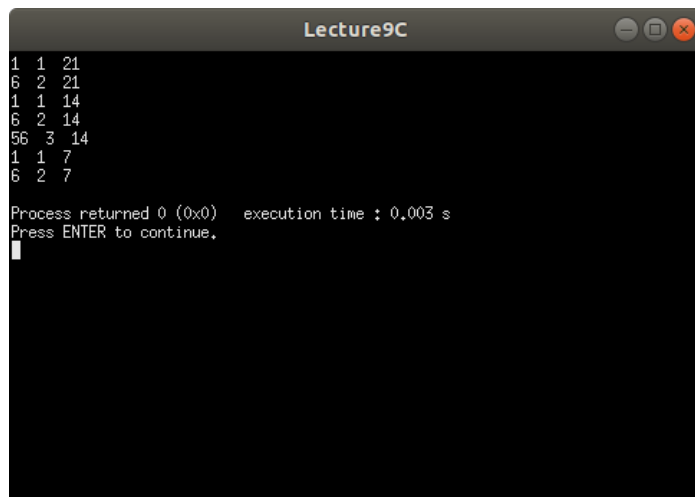
#include <iostream>
using namespace std;

int main()
{
    int x;
    for (int z = 21; z > 0 ; z--)
    {
        x=1;
        if (z%7 != 0)
            continue;
        for (int y = 1; y <= 4; y++)
        {
            cout << x << " " << y << " " << z << endl;

            if (z % y == 1)
                { break; }
            x = ++x * x++;
        }
    }
    return 0;
}

```

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```

Lecture9C
1 1 21
6 2 21
1 1 14
6 2 14
56 3 14
1 1 7
6 2 7
Process returned 0 (0x0) execution time : 0.003 s
Press ENTER to continue.

```