11/02/2023 (Important points)

1) C++ is a middle level language & middle level language has both features of high level and low level language.

2) Namespaces are used to avoid naming collisions.

3) C is also middle level language.

4) There can be nested namespaces as well i.e. one namespace within another namespace. Std namespace has many other namespace inside it such as chrono, exception etc.

5) Whenever we place anything inside the double inverted commas, it is called as string.

"Hello"
Hello is a string.

6) There are various directives such as # include, using etc. & directives will be discussed in detail when we will be studying macros.

7) char char = 'b';
This gives an error as we can not use the reserved keyword as the name of variable.

8) Some variable name conventions
→ meaningful name
→ we can use camel case.
numOfStudent } camel case

→ Start with lowercase letter.
→ Don't declare same variable name again & again.

```
int a = 5;
-----
----
int a = 3; //Multiple declarations are not allowed.
```

9) short → 2 bytes max number is $2^{16}-1$

```
short a = 2^16 - 1;
short b = 10;
short sum = a+b;   cout<<
```

What will be the o/p of sum?

$2^{16}-1 = 65535$ $\quad$ $65535 + 10 =$ (9) cycle is repeated

10)

```
int a = 5;
char b = 'd';
int sum = a + b;
cout << sum;
```

sum = 5 + 100 = 105
output will be 105

```
float f = 2.0 + sum;
cout << f;
```

f = 2.0 + 105 = 107.0
here 0 will be ignored & hence answer will be 107
107.0 will also be correct answer

11)

```
float f = 2.7;
int n = 157;
int diff = n - f;
cout << diff;
```

157 - 2.7 = 154.3

Now only integer part will selected and hence 154 is the right answer.

12) if ( )

cout << "Hello" ;

The above will work if only single line is written.

```
if ( )
    cout << "Hello"
    cout << "Hi"
```

Hello will come under the scope of if & rest will not.

However it is good practice to use curly braces whether 1 line or multiple lines.