

# TCS NINJA EXCEPTED TEST PAPERS-2018

The TCS test Sampus seasons will have four sections:

- 1) Section-1 **Quantitative Test**
- 2) Section-2 **Verbal Test (Test on Written English skills)**
- 3) Section-3 **Test on Programming Language Proficiency (based on 'C')**
- 4) Section-4 **Coding test (C Language)**

**Question 1:** Difference between pass by reference and pass by value?

**Answer:**

Pass by value just passes the value from caller to calling function so the called function cannot modify the values in caller function. But Pass by reference will pass the address to the caller function instead of value if called function requires to modify any value it can directly modify.

**Question 2:** What is an object?

**Answer:**

Object is a software bundle of variables and related methods. Objects have state and behaviour.

**Question 3:** What is a class?

**Answer:**

Class is a user-defined data type in C++. It can be created to solve a particular kind of problem. After creation the user need not know the specifics of the working of a class.

**Question 4:** What is the difference between class and structure?

**Answer:**

Structure: Initially (in C) a structure was used to bundle different type of data types together to perform a particular functionality. But C++ extended the structure to contain functions also.

The major difference is that all declarations inside a structure are by default public.

Class: Class is a successor of Structure. By default all the members inside the class are private.

**Question 5:** What is pointer?

**Answer:**

Pointer is a variable in a program is something with a name, the value of which can vary. The way the compiler and linker handles this is that it assigns a specific block of memory within the computer to hold the value of that variable.

**Question 6:** What is the difference between null and void pointer?

**Answer:**

A Null pointer has the value 0. Void pointer is a generic pointer introduced by ANSI. Generic pointer can hold the address of any data type.

**Question 7:** what is function overloading?

**Answer:**

Function overloading is a feature of C++ that allows us to create multiple functions with the same name, so long as they have different parameters. Consider the following function:

```
int Add(int nX, int nY)
{
    return nX + nY;
}
```

**Question 8:** what is friend function?

**Answer:**

A friend function for a class is used in object-oriented programming to allow access to public, private, or protected data in the class from the outside.

Normally, a function that is not a member of a class cannot access such information; neither can an external class. Occasionally, such access will be advantageous for the programmer. Under these circumstances, the function or external class can be declared as a friend of the class using the friend keyword

**Question 9:** What do you mean by inline function?

**Answer:** The idea behind inline functions is to insert the code of a called function at the point where the function is called. If done carefully, this can improve the application's performance in exchange for increased compile time and possibly (but not always) an increase in the size of the generated binary executables.

**Question 10:** Tell me something about abstract classes?

**Answer:**

An abstract class is a class which does not fully represent an object. Instead, it represents a broad range of different classes of objects. However, this representation extends only to the features that those classes of objects have in common. Thus, an abstract class provides only a partial description of its objects.