1. What is the full form of OOPS?

Object Oriented Programming System.

1. What is a class?

Class is a data types in C++ which encapsulate data member and methods to perform a particular task

1. What is an object?

An instance of the class is called as object.

1. List the types of inheritance supported in C++.

Single, Multilevel, Multiple, Hierarchical and Hybrid.

1. What is the role of protected access specifier?

If a class member is protected then it is accessible in the inherited class. However, outside the both the private and protected members are not accessible.

1. What is encapsulation?

The process of binding the data and the functions acting on the data together in an entity (class) called as encapsulation.

1. What is abstraction?

Abstraction refers to hiding the internal implementation and exhibiting only the necessary details.

1. What is inheritance?

Inheritance is the process of acquiring the properties of the existing class into the new class. The existing class is called as base/parent class and the inherited class is called as derived/child class.

1. Explain the purpose of the keyword volatile.

Declaring a variable volatile directs the compiler that the variable can be changed externally. Hence avoiding compiler optimization on the variable reference

1. What is an inline function?

A function prefixed with the keyword inline before the function definition is called as inline function. The main objective of inline function is to reduce the overheading cost of function

1. Mention the storage classes names in C++.

The following are storage classes supported in C++, auto, static, extern, register and mutable

1. What is the role of mutable storage class specifier?

A constant class object’s member variable can be altered by declaring it using mutable storage class specifier. Applicable only for non-static and non-constant member variable of the class.

1. Distinguish between shallow copy and deep copy.

Shallow copy does memory dumping bit-by-bit from one object to another. Deep copy is copy field by field from object to another. Deep copy is achieved using copy constructor and or overloading assignment operator

1. What is a pure virtual function?

A virtual function with no function body and assigned with a value zero is called as pure virtual function.

1. What is an abstract class in C++?

A class with at least one pure virtual function is called as abstract class. We cannot instantiate an abstract class.

1. What is a reference variable in C++?

A reference variable is an alias name for the existing variable. Which mean both the variable name and reference variable point to the same memory location. Therefore updation on the original variable can be achieved using reference variable too.

1. What is role of static keyword on class member variable?

A static variable does exist though the objects for the respective class are not created. Static member variable share a common memory across all the objects created for the respective class. A static member variable can be referred using the class name itself.

1. Explain the static member function.

A static member function can be invoked using the class name as it exists before class objects comes into existence. It can access only static members of the class

1. Name the data type which can be used to store wide characters in C++.

wchar\_t

1. What are/is the operator/operators used to access the class members?

Dot (.) and Arrow ( -> )

1. What is the data type to store the Boolean value?

bool, is the new primitive data type introduced in C++ language.

1. What is function overloading?

Defining several functions with the same name with unique list of parameters is called as function overloading.

1. What is operator overloading?

Defining a new job for the existing operator w.r.t the class objects is called as operator overloading.

1. Name the default standard streams in C++.

cin, cout, cerr and clog.

1. Which access specifier/s can help to achive data hiding in C++?

Private & Protected.

1. When a class member is defined outside the class, which operator can be used to associate the function definition to a particular class?

Scope resolution operator (::)

1. What is a destructor? Can it be overloaded?

A destructor is the member function of the class which is having the same name as the class name and prefixed with tilde (~) symbol. It gets executed automatically w.r.t the object as soon as the object loses its scope. It cannot be overloaded and the only form is without the parameters.

1. What is a constructor?

A constructor is the member function of the class which is having the same as the class name and gets executed automatically as soon as the object for the respective class is created.

1. What is a default constructor? Can we provide one for our class?

Every class does have a constructor provided by the compiler if the programmer doesn’t provides one and known as default constructor. A programmer provided constructor with no parameters is called as default constructor. In such case compiler doesn’t provides the constructor.

1. Which operator can be used in C++ to allocate dynamic memory?

‘new’ is the operator can be used for the same.