

# 8 Lecture - CS304

## Important Subjective

1. **What is the difference between a member function and a non-member function?**

Answer: A member function is defined within a class and has access to the data members of the class, whereas a non-member function is defined outside of the class and does not have access to the data members.

**What is the purpose of a constructor member function?**

Answer: A constructor member function is used to initialize an object of a class with a set of default values.

**What is the purpose of a destructor member function?**

Answer: A destructor member function is called automatically when an object is destroyed and is used to free up any resources allocated by the object.

**What is a static member function?**

Answer: A static member function is a function that can be called without creating an object of the class, and it has access only to static data members of the class.

**Can a member function be overloaded?**

Answer: Yes, a member function can be overloaded by defining two or more functions with the same name but different parameters or return types.

**What is the difference between a public and private member function?**

Answer: A public member function can be accessed by any code that has access to the object, whereas a private member function can only be accessed by other member functions of the class.

**Can a member function be declared as both virtual and static?**

Answer: No, a member function cannot be declared as both virtual and static because a virtual function requires a virtual table, whereas a static function does not.

**What is the purpose of the keyword 'this' in a member function?**

Answer: The keyword 'this' is a pointer to the current object, and it is used to access the data members and other member functions of the object.

**Can a constructor member function be overloaded?**

Answer: Yes, a constructor member function can be overloaded by defining two or more constructors with different parameters.

**What is the difference between a member function and a friend function?**

Answer: A member function is defined within a class and has access to the data members of the class, whereas a friend function is not a member of the class but has access to the private and protected members of the class.