38 Lecture - CS304

Important Subjective

1. **What is function template overloading in C++?**
   Answer: Function template overloading is a technique in C++ that allows programmers to define multiple functions with the same name but different argument types.

   How is function template overloading achieved in C++?
   Answer: Function template overloading is achieved by defining a function template with placeholders for argument types that can be instantiated with different types at compile time.

   What is the purpose of function template overloading?
   Answer: The purpose of function template overloading is to improve code flexibility and reusability by creating a single function that can be used with different data types.

   Can function templates be overloaded based on the return type?
   Answer: No, function templates cannot be overloaded based on the return type.

   What is the difference between function overloading and function template overloading?
   Answer: Function overloading creates multiple functions with the same name and argument types, while function template overloading creates multiple functions with the same name but different argument types.

   Can function templates be overloaded based on the number of arguments?
   Answer: Yes, function templates can be overloaded based on the number of arguments.

   What are the advantages of function template overloading?
   Answer: Function template overloading improves code flexibility and reusability by creating a single function that can be used with different data types.

   Can function templates be overloaded based on the constness of the arguments?
   Answer: Yes, function templates can be overloaded based on the constness of the arguments.

   How many function templates can be defined for a given set of argument types?
   Answer: Multiple function templates can be defined for a given set of argument types.

   Can function templates be overloaded based on the type of argument?
   Answer: Yes, function templates can be overloaded based on the type of argument.