Assignment Questions
CC111-N: Object Oriented Programming Using C++

Module 1:
- What is structure? Explain with example.
- What is pointer? Explain with example, pointer declaration, initialization and usage.

Module 2:
- Features/Concepts of OOP.
- OOP Vs. Procedural Programming.
- Define the terms: (i) Objects (ii) Class (iii) Constants (iv) Token (v) Identifier
- Differentiate: Class Vs. Structure

Module 3:
- Explain "class" and "object" with example and syntax.
- Write a note on access specifiers.
- Type conversion: Implicit and explicit type conversion.
- Write the utility of scope resolution operator (::) in C++.

Module 4:
- Explain reference variable with suitable example.

Module 5:
- Explain constructor and destructor with example.
- Explain inline function with example.
- Explain friend function with example. Pros and cons of friend function.

Module 6:
- Demonstrate operator overloading for the operator + with following example. Create a class TIME with three data members (hour, minute, second). Create three objects T1, T2 and T3 of type TIME. Your main function should have a statement like `T3 = T1 + T2;`

Module 7:
- What is inheritance? List various types of inheritance and explain them with example.
- Explain the concept of abstract class.
- Explain function/method overloading and overriding with example.

Module 8:
- Explain with example: (i) virtual class (ii) virtual function (iii) pure virtual function (iv) polymorphism

Module 9:
- What do you mean by exception handling? What are the keywords used for exception handling? Explain these keywords with examples.
- What is the purpose of template? Demonstrate with example.

Module 10:
- What is stream class? Explain ifstrea, ofstream, fstream classes with example.