**Nepal College of Information Technology**

**Assessment, 2020**

Program : BE Software Full Marks: 100

Semester : VI Pass Marks: 45

Subject : Object Oriented Software Development Time : 3 hrs

* *Candidates are required to give their answer in their own words as far as practicable.*
* *The figures in the margin indicate the full marks*
* ***Attempt ALL questions***

1. a) What is an Object Oriented Paradigm? Explain about Object Oriented Analysis and Design. [8]

b) Define Unified Modeling Language. Explain building blocks of UML. [7]

1. a) Explain Iterative and Incremental software development process with example. [8]

b) Explain Unified Software Development Process along with its life cycle. [7]

1. a) Explain primary modeling elements (Worker, Activity, Artifact and Workflow) of a process. [7]

b) Explain core workflows of Unified Process. [8]

1. a) What is Design Pattern? Explain about documenting of a pattern. [8]

b) Explain Factory Method pattern with UML class diagram. [7]

or

b) Explain Composite pattern along with advantages and uses.

1. a) What is Behavioral pattern? Explain Chain of Responsibility pattern. [7]

or

a) Explain about Concurrency pattern.

b) What do you mean by architectural pattern? Explain about Model View Controller (MVC) architectural pattern. [8]

1. a) Explain Service Oriented Architecture Pattern with design principles. [8]

b) What is Use-Case? Write importance of Use-case in system development process. [7]

1. Write short notes on : (**any two**) [2X5]
   1. Client/Server Architectural Pattern
   2. Singleton Pattern
   3. 4 P's of software development