

# POKHARA UNIVERSITY

Level: Bachelor

Semester: Spring

Year : 2017

Programme: BE

Full Marks: 100

Course: Object Oriented Software Development

Pass Marks: 45

Time : 3hrs.

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

***Attempt all the questions.***

1. a) Explain about Object Oriented Analysis and Design with suitable examples. 7
- b) What is UML? Explain different UML Diagrams with an appropriate example. 8
2. a) Explain Iterative and Incremental Development Process. 7
- b) Explain 4 P's of software development. 8
3. a) What is Unified Software Development Process? Explain its characteristics. 8
- b) What is Design Pattern? Write about importance of Design Patterns. 7
4. a) Describe Structural design pattern. 7
- b) Write about structure and documentation of pattern. 8
5. a) Explain about Singleton pattern along with code in any suitable programming language (c++ or java or c#). 8
- b) What is Software Architecture? Describe an architecture using UML. 7
6. a) What do you mean by architectural pattern? Explain about Model View Controller (MVC) architectural pattern. 8
- b) Explain Message Oriented Architecture Pattern with design principles. 7
7. Write short notes on: (**Any two**) 2x5
  - a) Life Cycle of Unified Software Development Process
  - b) Observer Pattern
  - c) Worker, Activity, Artifact and Workflow