Level: Bachelor   Semester: Spring   Year   : 2015
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) What is UML? Is UML an object oriented supported tool to design Object Oriented Systems. Support your answer a suitable example.   8

    b) What are the activities of Unified Process? Describe in short.   7

2. a) What is Business modeling? What is the relationship between Business modeling and requirement gathering in the development of a software? Take an example to prove your point.   7

    b) Discuss the strength and weakness of Object-Oriented and procedural programming with the help of Point of Sale system. (Hint: Point of Sale is a system that is used in super stores like Saleways or Bhatbhateni to capture sales).   8

3. a) What are Use Cases? Describe workflow for capturing requirement as use cases, including the participating workers and their activities.   7

    b) Design patterns have to be applied using some programming language. Discuss the statement in the light of programming paradigm versus design patterns. Take any two patterns with an example to prove your point.   8

4. a) What is the role of design pattern? How is design pattern important? Highlight the role of software development with respect to the design pattern?   8

    b) Write about structure and documentation of pattern.   7

5. a) Define design principle, design concept and design pattern. What are the disadvantages of design patterns?   8

    b) What is software architecture? Why do we need it?   7

6. a) Describe Message oriented architecture with a help of an example.   5

    b) Discuss about Client Server and Distributed architecture. Are they similar? Justify. What is the role of distributed architecture in today's world of automation? Explain.   10

7. Write short notes on: (**Any two**)   2×5
    a) Player-Role design pattern
    b) Reuse vs Reusability
    c) Life Cycle of Unified Software Development Process

POKHARA UNIVERSITY

Level: Bachelor Semester: Fall Year : 2016
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.

	a)	What is object-oriented analysis and design? Support your answer with suitable example.	8
	b)	What are the phases of Unified Process? Describe in short.	7
2.	a)	"System development is model development." Do you agree? Justify your answer.	7
	b)	Discuss the strength and weakness of Object-Oriented and procedural programming with the help of Banking transaction example.	8
3.	a)	Describe workflow for capturing requirement as use cases, including the participating workers and their activities.	7
	b)	Design is four dimensional view of a system. Justify along with design concepts.	8
4.	a)	Define design pattern. How is design pattern important? Is software development possible without applying design pattern?	7
	b)	Describe s suitable design pattern for following problem. "What is the best way to represent related objects (occurrence) in a class diagram?"	8
5.	a)	Define design principle, design concept and design pattern. What are the disadvantages of design patterns?	8
	b)	What is software architecture? Why do we need it?	7
	a)	Describe Service oriented architecture and design principles it helps to adhere.	7
	b)	Discuss in short about MVC Architecture with suitable diagram.	8
7.		Write short notes on: (**Any two**)	2×5
	a)	Player-Role design pattern	
	b)	Reuse vs Reusability	
	c)	Class Diagram	

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POKHARA UNIVERSITY

Level: Bachelor Semester: Spring Year : 2016
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) Describe the Object Oriented Analysis and Design process with example. 8
   b) Differentiate process and product engineering. Justify process engineering ultimately is also a product engineering. 7
2. a) How object oriented programming is flexible than procedure oriented programming? Explain with banking transaction example. 8
   b) Change management is very important in Iterative and Incremental Development. Why and how is it done? 7
3. a) What is software quality? Software qualities have different perspectives. Justify. 7
   b) Models development is driven by use case. Explain with suitable diagram. 8
4. a) Describe Player-Role pattern. 7
   b) Read following problem and suggest a design pattern with relevant information. 8
   Problem: How do you ensure that it is never possible to create more than one instance of a single class?
5. a) Can anyone build a software without implementing design pattern? What are advantage of using design pattern? 7
   b) List and describe the principles that leads to good design in brief. 8
6. a) Can one architecture be applied to multiple software projects? Compare and contrast design and architectural pattern. 7
   b) Describe MVC architectural pattern with the design principles it helps to adhere. 8
7. Write short notes on: (**Any two**) 2×5
   a) Architecture centric process
   b) Interaction Diagram
   c) Importance of design pattern

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**)	2×5
	a)	Life Cycle of Unified Software Development Process	
	b)	Observer Pattern	
	c)	Worker, Activity, Artifact and Workflow	