POKHARA UNIVERSITY

Level: Bachelor Semester – Spring Year : 2014

Programme: BESE Full Marks : 100

Course: Object Oriented Software Development Time : 3 hrs

*Candidates are required to give their answer in their words as for 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 |
| **(Unit 1: Introduction to UML)** |
| b) | What are the key ideas to be considered in Elaboration phase and what artifacts may start in this phase? | 7 |
| **(Unit 2 :Iterative and Incremental Development )** |
| 2. | a) | Differentiate Analysis and Design model. | 8 |
| **(Unit 2 :Iterative and Incremental Development )** |
| b) | Define Use case realization. What do you mean by use case driven software development process? | 7 |
| **(Unit 2 :Iterative and Incremental Development )** |
| 3. | a) | Define software quality. Describe the user, developer, customer and manager perspective of software quality. | 7 |
| **(Unit 2 :Iterative and Incremental Development )** |
| b) | Define design pattern. Differentiate programming paradigm and design pattern. | 8 |
| **(Unit 3: Design Pattern)** |
| 4. | a) | Describe Player-Role pattern | 7 |
| **(Unit 3: Design Pattern)** |
| b) | Read following problem and suggest a design pattern with relevant information.  Problem: How do you ensure that it is never possible to create more than one instance of a single class? | 8 |
| **(Unit 3: Design Pattern)** |
| 5. | a) | What are the difficulties and risks while using design pattern? Discuss in brief. | 7 |
| **(Unit 3: Design Pattern)** |
| b) | List and describe the principles that leads to good design in brief. | 8 |
| **(Unit 4: Software Testing Techniques and Strategies)** |
| 6. | a) | Compare and contrast design and architectural pattern. | 7 |
| **(Unit 4: Object Oriented Concepts and Principles)** |
| b) | Describe MVC architectural pattern with the design principles it helps to adhere. | 8 |
| **(Unit 4: Object Oriented Concepts and Principles)** |
| 7. |  | Write short notes on (any two). | 2\*5 |
| a) | Architecture centric process |
| b) | Interaction Diagram |
| c) | Importance of design pattern |

**MARKS DISTRIBUTION ACCORDING TO THE UNIT AND CREDIT HOURS**

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| **UNIT** | **NAME OF THE UNIT** | **CREDIT HOUR** | **QUESTION NUMBER** | **MARKS OF QUESTION** |
| 1 | Introduction | 8 | 1a | 8 |
| 2. | Iterative and Incremental Development | 14 | 1b, 2a, 2b, 3a, 7b | 34 |
| 3. | Design Pattern | 15 | 3b, 4a, 4b, 5a, 7c | 35 |
| 4. | Software Architecture | 12 | 5b, 6a, 6b, 7a | 28 |

Note: The question set has not been used in internal examination and will never be used for such purposes. I have prepared this set of question by fully abiding the rules and regulation of Pokhara University and committed to its confidentiality.

Name of the Question Setter: Er. Dilip Kumar Shrestha

Date: 16th Jan, 2015

Signature:............................