POKHARA UNIVERSITY

Level: Bachelor   Semester: Spring   Year   : 2017
Programme: BE   Full Marks: 100
Course: Object Oriented Software Engineering   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 the significance of software Engineering? With diagram, explain *scrum* process model for software development.	8
	b)	What do you mean by software scoping? With example, explain *decision-tree* in order to understand the norms of Make/Buy decision.	7
2.	a)	Suppose that Pokhara University is going to develop *Online Learning System* (OLS). You have been asked by the university to mention four (4) major requirements definition for OLS. List the four requirements definition and explain their requirement specifications.	8
	b)	Draw the Context Level Data Flow Diagram (DFD) and Level 1 DFD for the above OLS.	7
3.	a)	What do you understand by software design? Briefly explain different steps that represent a typical task set for component-level design.	8
	b)	Briefly explain different categories of class. Describe the guidelines for allocating responsibilities to classes.	7
4.	a)	Why user interface design is important in software development? Referencing a mobile application for smart agriculture, describe user interface design issues.	8
	b)	Briefly explain the set of guidelines for formal technical reviews (FTR).	7
5.	a)	Considering online shopping software, explain test strategies.	8
	b)	Define Cyclomatic Complexity (CC). Prove that all methods that calculate CC result the same value for it.	7
6.	a)	Define software quality. Explain the activities of software quality assurance (SQA) group for achieving a high-quality end product.	8
	b)	With diagram, explain software process improvement framework.	7
7.		Write short notes on: **(Any two)**	2×5
	a)	Types of Software	
	b)	Spiral Model	
	c)	Software Project Estimation	