POKHARA UNIVERSITY

Level: Bachelor | Semester: Spring | Year : 2018
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) Mention and explain some of the agility principle defined by agile alliance. 7

   b) Define Spiral model with its advantage and disadvantage 8

2. a) What is W^5HH principle? Explain the acceptance of the software in different condition in terms of types of feasibility 8

   b) Explain briefly the need of risk identification during software development process. Also explain RMMM and RMMM plan. 7

3. a) Draw a detailed use case diagram for the following case study: 8

   Case Study:

   A customer visits online shopping portal. A customer may buy item or just visit the page and logout. The customer can select a segment, than a category and brand to get different products in the desired band. The customer can select product for purchasing. The process can be repeated for more items. Once the customer finishes selecting the product/s, the cart can be viewed. If the customer wants to edit the final cart it can be done here. For final payment the customer has to login to portal. If the customer is visiting for the first time he must register with the site, else the customer must use the login page to proceed. Final cart is submitted for payment and card details and address details are to be confirmed with customer. Customer is confirmed with the shipment id and delivery if goods within 15 days.

   b) What is sequence diagram? What are the elements used in sequence diagram? Explain each. 7

4. a) What is Domain analysis? Explain the key inputs and outputs for the domain analysis process. 8

   b) What are Abstraction and refactoring? Differentiate between class diagram and object diagram. 7

5. a) What is software testing? Compare and contrast white box testing and black box testing. 7

   b) Define Software quality assurance? What are the set of guidelines for formal technical review? 8

6. a) How can you measure software reliability and availability? Explain briefly about software safety. 7

   b) What is software process improvement? Explain the elements of software process improvement framework with diagram. 8

7. Write short notes on: (**Any two**) 2×5

   a) Functional Vs. Non-Functional Requirements

   b) Alpha and Beta Testing

   c) Forward and reverse engineering?