15IS72

Seventh Semester B.E. Degree Examination, June/July 2019
Software Architecture and Design Pattern

Time: 3 hrs.   Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

1 a. What is design pattern? Explain essential elements of design patterns. **(08 Marks)**
  b. Define object oriented development. Explain key concepts of object oriented design. **(08 Marks)**

OR

2 a. Explain how to choose right design pattern for your problem. **(08 Marks)**
  b. Analyze step by step approach of applying a design pattern effectively. **(08 Marks)**

Module-2

3 a. What is use case analysis? Draw neat use case diagram for library system, also explain Register user use case with proper description. **(10 Marks)**
  b. Define facade pattern. Explain with neat diagram. **(06 Marks)**

OR

4 a. Explain activities involved in analysis phase. **(08 Marks)**
  b. During the design process, what are the questions need to be answered? **(08 Marks)**

Module-3

5 a. Explain the applicability and structure of a adaptor pattern. **(08 Marks)**
  b. Describe the motivation of composite pattern with neat diagram. **(08 Marks)**

OR

6 a. Explain the issues to be consider while implementing the decorator pattern. **(08 Marks)**
  b. Describe structure and participants of proxy pattern. **(08 Marks)**

Module-4

7 a. With neat diagrams, explain MVC architecture and alternative view of the MVC architecture. **(08 Marks)**
  b. Explain the characteristics of architectural patterns in pattern based solutions. **(08 Marks)**

OR

8 a. Define the controller. Explain the steps involved in defining the controller. **(08 Marks)**
  b. With neat diagram, explain the design of the view subsystem. **(08 Marks)**

Module-5

9 a. Explain the architecture of client/server systems. **(08 Marks)**
  b. How to develop the user requirements? Explain steps involved in it. **(08 Marks)**

OR

10 a. Explain the process of implementing a remote interface. **(10 Marks)**
   b. Compare GET and POST methods. **(06 Marks)**