

CBCS SCHEME

15CS652

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Sixth Semester B.E. Degree Examination, June/July 2019 Software Architecture and Design Patterns

Max. Marks: 80

Time: 3 hrs.

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

Module-1

- 1 a. Explain briefly, how design patterns solve design problems. (10 Marks) 6
b. Explain uniform structure for describing design patterns. (06 Marks) 3

OR

- 2 a. Explain the key concept of object oriented design. (06 Marks)
b. Write a short note on : i) Modular Design and Encapsulation ii) Cohesion and coupling. (06 Marks)
c. Explain how to select a design pattern. (04 Marks)

Module-2

- 3 a. Write the use case for the following:
i) Register New Member
ii) Adding New books
iii) Removing Books
iv) Process Holds. (08 Marks) 4
b. Explain with neat sequence diagrams, the following operations of library systems i) Issue Books ii) Return Books. (08 Marks) 0

OR

- 4 a. Explain the method of setting up the interface and printing transaction while implementing the library systems. Add pseudo code wherever necessary. (08 Marks)
b. Explain the class diagram for member, for the library system. (04 Marks)
c. Briefly explain the Facade pattern. (04 Marks)

Module-3

- 5 a. Explain the structure and consequences of Adapter patterns. (08 Marks) 3
b. Explain the motivation and implementation of adaptor patterns. (08 Marks) 3

OR

- 6 Explain the decorator patterns in detail. (16 Marks)

Module-4

- 7 a. Explain the MVC architectural pattern in detail with the help of diagrams. (08 Marks) 5
b. Explain the sequence diagrams for the following operations:
i) Drawing a line
ii) Adding a label. (08 Marks) 5

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.