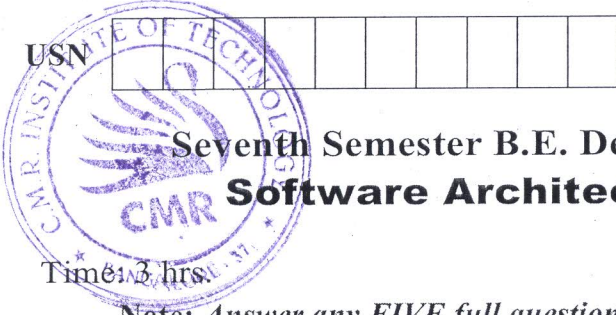


# CBCS SCHEME

17IS72



## Seventh Semester B.E. Degree Examination, June/July 2024 Software Architecture and Design Pattern

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. What is object oriented development? Explain key concept of OO design. (10 Marks)
- b. What is design pattern? Explain essential elements of design patterns. (05 Marks)
- c. Explain how to describe a design pattern. (05 Marks)

OR

- 2 a. Explain how design pattern color design problem. (10 Marks)
- b. Explain how to select a design pattern. (05 Marks)
- c. Explain how to use a design pattern. (05 Marks)

### Module-2

- 3 a. Explain activities involved with analysis plan. (10 Marks)
- b. What are the guidelines to remember when writing use cases? (05 Marks)
- c. Explain conceptual, software and implementation classes. (05 Marks)

OR

- 4 a. Design the use case diagram of library system and explain any two use cases. (10 Marks)
- b. Construct and explain sequence diagram for returning book in library system. How is it implemented. (10 Marks)

### Module-3

- 5 a. Explain decorator pattern in detail. (10 Marks)
- b. What are the issues to consider when implementing composite pattern. (10 Marks)

OR

- 6 a. Explain in detail proxy pattern. (10 Marks)
- b. Explain in detail Bridge pattern. (10 Marks)

### Module-4

- 7 a. With neat diagram, explain MVC architecture and alternative view of MVC architecture. (10 Marks)
- b. Explain the issue needed to be highlighted when implementing the undo operations. (05 Marks)
- c. What are benefits of MVC pattern? (05 Marks)

OR

- 8 a. Describe the process of designing the system in detail taking simple drawing program as an example. (10 Marks)
- b. Describe implementation of view class with example. (05 Marks)
- c. Define Controller. Explain steps involved in defining the controller. (05 Marks)

**Module-5**

- 9 a. What are distributed systems? Explain the basic architecture of client server system. (10 Marks)
- b. Explain the process of implementing a remote object system. (10 Marks)

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OR

- 10 a. Explain how to implement object oriented system on the web. (10 Marks)
- b. Write a note on Remote method invocation in Java. (10 Marks)

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