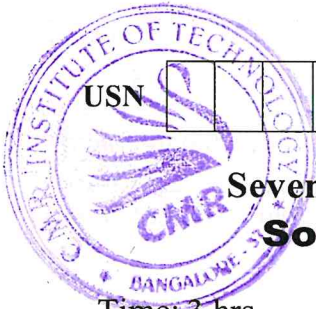


CBCS SCHEME



USN

15IS72

Seventh Semester B.E. Degree Examination, Jan./Feb. 2021 Software Architecture and Design Patterns

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. List out and explain four essential elements of design pattern with small talk MVC example. (08 Marks)
- b. List out the templates used in describing design pattern. (04 Marks)
- c. Name any four design pattern available in catalog of design pattern. (04 Marks)

OR

- 2 a. Name the several approaches to find the design pattern that's rights for your problem. (06 Marks)
- b. Define object oriented development. Name the various key concepts of OOD. (06 Marks)
- c. Explain the benefits and drawback of the paradigm in OOD. (04 Marks)

Module-2

- 3 a. List out the business process of the library system. (05 Marks)
- b. Define business rule. List out the rules of the library system. (07 Marks)
- c. Explain how do business rules relate to use cases with its four categories. (04 Marks)

OR

- 4 a. List out the guidelines to remember when writing use cases. (07 Marks)
- b. What is domain analysis? Explain the thumb rules and caveats come on handy. (06 Marks)
- c. Compare business process modeling and use case modeling. (03 Marks)

Module-3

- 5 a. Define structural pattern. List out the consequences of adapter pattern. (05 Marks)
- b. Describe the two important issues when implementing the fly weight pattern. (04 Marks)
- c. Describe the implementation and sample code of adapter pattern. (07 Marks)

OR

- 6 a. Define the intent of Bridge pattern. Mention the consequences of bridge pattern. (04 Marks)
- b. What is decorator pattern? Explain with neat sketch various participants of decorator pattern. (07 Marks)
- c. Explain with necessary diagram how compiler facade makes life easier for most programmers. (05 Marks)

Module-4

- 7 a. Mention and explain benefits of MVC pattern. (05 Marks)
- b. With suitable use case tables explain analyzing a simple drawing program of MVC pattern. (06 Marks)
- c. Explain interaction diagram for the bridge pattern between the two classes. (05 Marks)

OR

- 8 a. Explain the sequence of operations for adding a label which deals with the Environmental variables. (08 Marks)
- b. Explain the design of the controller subsystem with controller class diagram. (08 Marks)

Module-5

- 9 a. What is remote object? Explain Java Remote Method Invocation. (06 Marks)
- b. Explain implanting an object oriented system on the web. (06 Marks)
- c. Write short notes on servlet container. (04 Marks)

OR

- 10 a. Explain the class diagram for library servlets. (06 Marks)
- b. Explain simplified sequence diagram for removing books. (08 Marks)
- c. Define sessions and session object of servlets. (02 Marks)

