

CBCS SCHEME

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18CS642

Sixth Semester B.E. Degree Examination, July/August 2022

Object Oriented Modeling and Design

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Explain the following terms with example,
(i) Aggregation versus association (ii) Aggregation versus composition. (10 Marks)
b. Define Association End. List and explain the properties of Association End. (10 Marks)

OR

- 2 a. Explain the following terms with example: (i) Metadata (ii) Reification. (10 Marks)
b. Define Event. Explain different kinds of events with an example. (10 Marks)

Module-2

- 3 a. List and explain the rules for developing statecharts. (10 Marks)
b. Define SSD. What are the steps to develop SSD based on activity diagram? (10 Marks)

OR

- 4 a. Define Use Case diagram. Explain notations used in usecase diagram with example. (10 Marks)
b. Explain the process of developing the ORDERITEM statechart with the help of state diagram. (10 Marks)

Module-3

- 5 a. List and explain the stages of software development process. (10 Marks)
b. Explain the system concept for an automated Teller machine with the help of problem statement. (10 Marks)

OR

- 6 a. List and explain the criteria's to eliminate unnecessary and incorrect attributes. (10 Marks)
b. List and explain the steps to construct a domain state model. (10 Marks)

Module-4

- 7 a. Explain primary responsibility of view layer and data access layer classes. (10 Marks)
b. Explain Encapsulation Information hiding, Cohesion and Separation of responsibilities. (10 Marks)

OR

- 8 a. Explain the steps to be followed in developing first cut sequence diagram. (10 Marks)
b. Explain the process of designing with communication diagrams. (10 Marks)

Module-5

- 9 a. Explain the applicability, structure, benefits and liabilities of abstract factory pattern. (10 Marks)
b. Explain the process of how design pattern. Solve design problem. (10 Marks)

OR

- 10 Write a short notes on:
a. Structural pattern.
b. Creational pattern.
c. Adopter design pattern.
d. Proxy pattern. (20 Marks)

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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.