



CBCS SCHEME

16/17MCA51

Fifth Semester MCA Degree Examination, June/July 2019 Object Oriented Modeling and Design Patterns

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. What are the various stages of Object Oriented Methodology used in software development? (08 Marks)
b. Describe the Object Oriented themes. (05 Marks)
c. Write short notes on the various modeling techniques. (03 Marks)

OR

- 2 a. Describe the following terms with suitable examples.
i) Multiplicity ii) Enumeration iii) Visibility iv) Ordering. (08 Marks)
b. Explain the links and associations with an example. (04 Marks)
c. Discuss the terms of aggregation and composition with examples. (04 Marks)

Module-2

- 3 a. What do you mean by event? Explain the several kinds of events with examples. (08 Marks)
b. Discuss the significance of state diagram and draw the state diagram for telephone line system. (08 Marks)

OR

- 4 a. Write a guidelines for sequence model and draw the sequence diagram for cash withdrawal process in ATM system. (08 Marks)
b. Draw the use case diagram for library management system and describe the guidelines of use case diagram. (08 Marks)

Module-3

- 5 a. Elaborate and explain the questions to be answered for a good system concept. (07 Marks)
b. Write in detail about the software development stages. (09 Marks)

OR

- 6 a. Discuss the steps to construct a domain class model, with an example of ATM. (08 Marks)
b. Describe the various steps to construct an application interaction model. (08 Marks)

Module-4

- 7 a. What is software control strategy? Explain the different types of software control strategy. (07 Marks)
b. Draw the diagram of architecture of ATM system. (05 Marks)
c. What are the types of subsystems in breaking a system into subsystems? (04 Marks)

OR

- 8 a. Write the various steps to design algorithms. (08 Marks)
b. Describe in detail about the design optimization. (08 Marks)

Module-5

- 9 a. What is a pattern? Write the categories of pattern in detail. (08 Marks)
b. Describe the pattern description template in detail. (08 Marks)

OR

- 10 a. Explain the Client Dispatcher Server design pattern in detail. (11 Marks)
b. Briefly write about the structure and dynamics of Forwarder Receiver design pattern in detail. (05 Marks)

* * * * *

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.