

ONE TIME EXIT SCHEME

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10CS71

Seventh Semester B.E. Degree Examination, April 2018

Object Oriented Modeling & Design

Time: 3 hrs.

Max. Marks: 100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. With respect to object oriented modeling and design, explain the concept OO themes. (06 Marks)
b. With the help of a sample class model, explain the following:
(i) Qualified associations. (06 Marks)
(ii) Multiplicity. (06 Marks)
(iii) Generalized and Inheritance. (08 Marks)
c. With a neat diagram, explain a class model of a windowing system. (08 Marks)
- 2 a. What is an association end? What are the properties of an association end? (06 Marks)
b. With respect to constraints, briefly discuss about, (i) Constraints on objects (ii) Constraints on Generalization sets. (06 Marks)
c. Define state diagram, draw the state diagram for telephone line with activities. (08 Marks)
- 3 a. What do you mean by concurrency? Explain the different types of concurrency among objects. (08 Marks)
b. What are the guidelines for use case models? (06 Marks)
c. Explain about procedural sequence models. (06 Marks)
- 4 a. Explain the stages in the software development process. Which life cycle would you prefer in the development? Why? (10 Marks)
b. Identify the classes of an ATM for a bank. What criteria would you take into consideration to select the right classes? Explain. (10 Marks)

PART – B

- 5 a. What are the steps involved in constructing an application state model? (12 Marks)
b. Explain the steps in designing a compiler by using batch transformation. (08 Marks)
- 6 a. Explain class design. What are the steps involved in class design. Explain with example. (12 Marks)
b. When fine-tuning of class is essential? How is it achieved? Explain with example. (08 Marks)
- 7 a. What is a pattern? Explain the model-view-controller design pattern for software architecture, with diagram. (05 Marks)
b. List and explain the different pattern categories. (05 Marks)
c. Explain the client-dispatcher server design pattern. (10 Marks)
- 8 a. Write and explain the steps to implement a forward-receiver design pattern. (12 Marks)
b. Write down the steps to implement the counted pointer idiom. (08 Marks)

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