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.
      (ii) Multiplicity.
      (iii) Generalized and Inheritance. **(06 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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