06CS71

Seventh Semester B.E. Degree Examination, Dec.09/Jan.10
Object Oriented Modeling and Design

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions,*
selecting atleast two questions from each part.

PART – A

1 a. Explain the models in OO development. Bring out the relationship among the models. (08 Marks)

   b. With the help of a sample class model, explain the following :
   i) attributes and operations   ii) qualified associations   iii) multiplicity
   iv) association end names   v) generalization and inheritance. (12 Marks)

2 a. Explain the properties of association ends. (08 Marks)

   b. Define an event in state modeling. Explain the kinds of events. (07 Marks)

   c. Give the general UML system for state diagram and explain. (05 Marks)

3 a. What us an activity diagram? Explain the special constructs for activity models. (10 Marks)

   b. What are use case models? Give the guidelines for constructing a use case model. (05 Marks)

   c. What are nested states? Explain with examples. (05 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 any two architectural styles, suited for system design. (08 Marks)

6 a. How would you improve the organization of a class design? (06 Marks)

   b. How would you choose association traversal? Explain the following :
   i) One-way association
   ii) Two-way association. (06 Marks)

   c. Write short notes on :
   i) Reverse engineering
   ii) Wrapping. (08 Marks)

7 a. What is a pattern? Explain the model-view-controller design pattern for software architecture, with OMT diagram. (05 Marks)

   b. List and explain different pattern categories. Give the differences between patterns and methods. (05 Marks)

   c. Explain client-dispatcher-server design pattern. (10 Marks)

8 a. Explain the command processor design pattern. (10 Marks)

   b. Explain publisher-subscriber design pattern. (05 Marks)

   c. What are idioms and styles? Explain with the help of an example, a style guide idiom. (05 Marks)

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