06CS71

Seventh Semester B.E. Degree Examination, December 2012
Object Oriented Modeling and Design (OOMD)

Time: 3 hrs.   Max. Marks:100

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

PART – A

1 a. What is object orientation? Explain its aspects with an example.   (06 Marks)
   b. What is model? What are its advantages? Briefly discuss about three models.   (08 Marks)
   c. What is generalization? Briefly discuss the generalization of equipments.   (06 Marks)

2 a. Define the following terms, with an example :
      i) Enumerations   ii) Association ends   iii) Aggregation   iv) Abstract classes.   (08 Marks)
   b. With respect to multiple inheritance, briefly discuss about
      i) Multiple classification   ii) Workarounds.   (06 Marks)
   c. What do you mean by states and events? Draw the state diagram for a telephone line system.
                                                                                      (06 Marks)

3 a. What is concurrency? Explain the aggregation concurrency, with an example.   (06 Marks)
   b. What are sequence models? Draw the sequence model for on – line stock broker system.
                                                                                      (06 Marks)
   c. Briefly discuss the usecase relationships and draw the usecase diagram of stock brokerage
      system.   (08 Marks)

4 a. Briefly discuss the software development stages.   (08 Marks)
   b. Identify the classes for ATM bank system. What criteria would you take into consideration
      to select right classes? Explain.   (08Marks)
   c. List the steps to construct domain state model.   (04 Marks)

PART – B

5 a. With a neat activity diagram, explain the card verification activity of ATM bank system.
                                                                                      (06 Marks)
   b. Define the following terms : i) Libraries   ii) Frameworks   iii) Patterns.   (06 Marks)
   c. Explain the steps in designing a complier by using batch transformation.   (08 Marks)

6 a. Briefly discuss the design optimization and explain its tasks, with an example. (08 Marks)
   b. List and explain the steps involved in organizing of a class design.   (06 Marks)
   c. Differentiate between forward engineering and reverse engineering.   (06 Marks)

7 a. What is a pattern? Explain the model – view controller design for software architecture, with
      OMT diagram.   (06 Marks)
   b. Explain the client – dispatcher – design pattern.   (08 Marks)
   c. List and explain different pattern categories.   (06 Marks)

8 a. Explain the command processor design pattern.   (08 Marks)
   b. What are idioms and styles? Explain with the help of an example, a style guide idiom. (06 Marks)
   c. Explain the publisher – subscriber design pattern.   (06 Marks)

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