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Seventh Semester B.E. Degree Examination, June 2012
Object Oriented Modeling and Design

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Explain how systems are modeled from different viewpoints. (10 Marks)
 b. Elaborate on the major themes that are well supported in object oriented technology. (10 Marks)
- 2 a. List and explain the various restructuring techniques used with respect to workarounds (10 Marks)
 b. What is a constraint with respect to a class modeling? Explain.
 i) Constraints on generalization sets
 ii) Constraints on links. (10 Marks)
- 3 a. Describe the two kinds of sequence models. What are the guidelines for sequence models? (12 Marks)
 b. How an activity diagram differs from a traditional flowchart? Give the activity diagram for stock trade processing. (08 Marks)
- 4 a. What is system conception? List and explain questions that must be answered by a good system concept. (10 Marks)
 b. Describe the steps performed in constructing a domain state model. (10 Marks)

PART – B

- 5 a. Describe the steps involved to allocate each concurrent subsystem to a hardware unit, either a general purpose processor or a fractional unit. (12 Marks)
 b. What is an interactive interface? Explain in brief steps in designing an interactive interface. (08 Marks)
- 6 a. Elaborate three tasks involved in design optimization. (10 Marks)
 b. What are the outputs from reverse engineering? In brief, discuss reverse engineering tips. (10 Marks)
- 7 a. What is a pattern? Explain the model view controller design pattern for software architecture with OMT class diagram. (10 Marks)
 b. Describe three categories of patterns. (10 Marks)
- 8 a. Along with neat diagram and necessary steps, describe a typical scenario of the command processor pattern implementing an undo mechanism. (10 Marks)
 b. Write a note on :
 i) Benefits of view handler pattern
 ii) Liabilities of view handler pattern. (10 Marks)

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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. (08 Marks)
- 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 compiler 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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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.