Fifth Semester MCA Degree Examination, December 2011
Object Oriented Modeling and Design Patterns

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1   a.   What is object – orientation? What are the three models used for OO development? Describe. **(10 Marks)**

     b.   Draw a sample class model of a OR ATM system. **(10 Marks)**

2   a.   What is multiple inheritance? Explain different kinds of multiple inheritances in advanced class modeling concept, with examples. **(10 Marks)**

     b.   Draw and explain state diagram for a telephone line. **(10 Marks)**

3   a.   Explain aggregation concurrency. **(10 Marks)**

     b.   Explain the sequence diagram, with an example. **(10 Marks)**

4   a.   What are the different approaches to software development? Explain. **(08 Marks)**

     b.   What are the different steps to construct a domain class model? Explain any three steps with example. **(12 Marks)**

5   a.   Specify the steps to construct the application interaction model. Explain any three steps with examples. **(12 Marks)**

     b.   What are the several kinds of global resources that the software designer must identity? Explain. **(08 Marks)**

6   a.   Implement one-way and two-way associations, with examples. **(10 Marks)**

     b.   What are the different steps to improve organization of a class design? **(10 Marks)**

7   a.   What is a pattern? What are the different components of pattern descriptions / pattern description template? **(08 Marks)**

     b.   Explain the implementation steps of client – dispatcher server pattern. **(12 Marks)**

8   a.   Explain structure and collaborators of command processor pattern, with a diagram. **(10 Marks)**

     b.   Explain the dynamics of forwarder – receiver pattern with a diagram. **(10 Marks)**

* * * * *