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07MCA51

Fifth Semester MCA Degree Examination, June 2012
Object Oriented Modelling and Design Patterns

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. What is a model? What are the purposes of it? (04 Marks)
b. Explain the various links and association concepts in class mode with examples. (10 Marks)
c. Compare aggregation with association and composition with example. (06 Marks)
- 2 a. What is multiple inheritance? Explain different types of multiple inheritances with diagrammatic example. (10 Marks)
b. Explain events, states, transitions and conditions with a suitable state diagram. (10 Marks)
- 3 a. Explain in detail use case model with example. What are the guidelines for the case models? (10 Marks)
b. Explain in detail a sequence model and draw the sequence diagram for a session with online stock broker. (10 Marks)
- 4 a. Discuss about activity diagram. Write the activity diagram for stock trade processing. (10 Marks)
b. Explain the different stages of software development in detail. (10 Marks)
- 5 a. What are the steps to construct a domain class model? Explain any five steps with example. (12 Marks)
b. Compare forward engineering with reverse engineering. What are the inputs and outputs of reverse engineering? (08 Marks)
- 6 a. List the different steps to construct an application interaction model. Explain any five with example. (12 Marks)
b. What is implementation? What are the different steps involved in implementation modelling? Explain any two steps with example. (08 Marks)
- 7 a. What is a pattern? Briefly explain the pattern description templates. (08 Marks)
b. Explain the structure and dynamics of forwarder – receiver pattern with a neat diagram. (12 Marks)
- 8 a. Explain the structure and implementation steps of command processor pattern with a neat diagram. (12 Marks)
b. What is publisher – subscriber pattern? Implement this in C++ or Java program by considering any problem definition. (08 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.