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10MCA51

Fifth Semester MCA Degree Examination, June/July 2015
Object Oriented Modeling and Design Patterns

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. What are Object Oriented themes? (06 Marks)
b. What are the purposes served by model? (04 Marks)
c. Define the following with an example for each :
i) Class ii) Bags & Sequences iii) Association class iv) Qualified associations. (10 Marks)
- 2 a. Define and differentiate between Association, Aggregation and Composition along with appropriate example. (10 Marks)
b. With the necessary diagram, explain the behaviour of state diagram. (10 Marks)
- 3 a. Explain synchronization of concurrent activities, with an example. (08 Marks)
b. Explain components of activity diagram along, with a neat diagram. (12 Marks)
- 4 a. Explain advanced use case relationships, with appropriate example. (10 Marks)
b. How do you eliminate unnecessary and incorrect attributes while constructing domain class model? (10 Marks)
- 5 a. Explain briefly steps in constructing application model. (10 Marks)
b. Write a note on :
i) Batch Transformation ii) Continuous Transformation. (10 Marks)
- 6 a. Briefly explain how you bridge gap from high level requirement to low – level services. (08 Marks)
b. Why tuning of tuning of classes required? What are the different possibilities in doing the same? (08 Marks)
c. Differentiate between reverse engineering and forward engineering. (04 Marks)
- 7 a. What is a Pattern? Explain properties of pattern for software architecture. (10 Marks)
b. Explain structure and dynamics of command pattern. (10 Marks)
- 8 a. Explain structure and dynamics of Forwarder – Receiver design pattern. (10 Marks)
b. What are Idioms? Explain counted pointer Idiom in detail. (10 Marks)

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.