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13MCA51

Fifth Semester MCA Degree Examination, June/July 2016
Object Oriented Modeling and Design Patterns

Time: 3 hrs. Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. Explain different types of object oriented methodology stages. **(05 Marks)**

b. What is object orientation? Explain the characteristics required by an object oriented approach. **(10 Marks)**

c. What is model? Briefly discuss about 3 models. **(05 Marks)**

2 a. Explain with a neat diagram class model of a windowing system. **(10 Marks)**

b. Define the following terms, with an examples :
i) enumerations ii) qualified associations iii) abstract classes. **(10 Marks)**

3 a. What do you mean by states and events? Draw the state diagram for a telephone line system. **(10 Marks)**

b. What is concurrency? Explain the aggregation concurrency, with an example. **(10 Marks)**

4 a. Briefly discuss the usecase relationships and draw the usecase diagram of stock brokerage system. **(10 Marks)**

b. Draw the activity diagram, for stock trade processing. What are the guidelines needed to be followed while drawing activity models. **(10 Marks)**

5 a. Explain software development stages. **(10 Marks)**

b. Explain system concept for an automated teller machine (ATM). **(10 Marks)**

6 a. Explain any 4 steps to construct a domain class model. **(10 Marks)**

b. Explain with a neat diagram ATM application class model. **(10 Marks)**

7 a. Explain batch transformation with an example. **(10 Marks)**

b. Explain the different ways to hide information. **(10 Marks)**

8 Write a short notes on :

a. Multiple classification

b. Metadata

c. Swimlanes

d. Scenarios. **(20 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.