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10CS71

**Seventh Semester B.E. Degree Examination, June/July 2018**

**Object Oriented Modeling and Design**

Time: 3 hrs.

Max. Marks: 100

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

**PART – A**

- 1 a. What is OO development? Explain object oriented themes briefly. (06 Marks)  
b. Define model. Describe the relationship among three models. (06 Marks)  
c. What is generalization? Discuss generalization with an example. (08 Marks)
- 2 a. Define the following terms with an example:  
i) Multiplicity  
ii) Visibility  
iii) Abstract class (08 Marks)  
b. Draw the state diagram for telephone system and explain in detail. (12 Marks)
- 3 a. What is concurrency? Explain the aggregation concurrency with an example. (06 Marks)  
b. What are sequence models? Give the guidelines for sequence models. (06 Marks)  
c. Explain use case description with an example. (08 Marks)
- 4 a. Briefly discuss the software development stages. (10 Marks)  
b. List and explain the steps to construct domain class model. (10 Marks)

**PART – B**

- 5 a. Describe in detail application state model. (08 Marks)  
b. Define the following terms:  
i) Libraries  
ii) Frameworks  
iii) Patterns (06 Marks)  
c. Explain the architecture of ATM system with schematic diagram. (06 Marks)
- 6 a. What are the steps in class design? Explain. (10 Marks)  
b. Describe in detail an implementation model, explaining the steps in construction of it. (10 Marks)
- 7 a. What is a pattern? Explain the model view controller design for software architecture with OMT diagram. (06 Marks)  
b. Describe the relationships between patterns. (04 Marks)  
c. Explain client-dispatcher-design pattern with schematic diagram. (10 Marks)
- 8 a. Explain command processor design pattern. (10 Marks)  
b. What are idioms and styles? Explain counted pointer example. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any irregularity of identification marked by a candidate will be considered as a mistake and the candidate will be liable for the same.