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10CS71

Seventh Semester B.E. Degree Examination, Feb./Mar. 2022
Object Oriented Modeling and Design

Time: 3 hrs. Max. Marks:100

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

PART – A

1 a. What is OO development? Describe various OO concepts OO development. **(10 Marks)**

b. What is navigation of class? Give class model for managing credit card accounts? What are the variety of questions we can pose against the above class model during navigation of class. **(10 Marks)**

2 a. What is state model? Draw the diagram for
i) Continuous loop state diagram
ii) One-shot state diagram. **(12 Marks)**

b. What is a Package? What are the various themes for forming packages? Describe the three tips for devising packages. **(08 Marks)**

3 a. Define submachine and expanding state? Draw the state diagram for vending machine which uses submachine. **(10 Marks)**

b. What is activity diagram? How does an activity diagram differs from a traditional flow chart? Draw activity diagram for execute order with respect to stock trade processing. **(10 Marks)**

4 a. What is system conception? What are the different methods to find new system concepts? Draw a neat block diagram showing the problem statement for an automated teller machine network. **(10 Marks)**

b. What is domain Analysis? Describe the various criteria for eliminating unnessary and incorrect attributes. **(10 Marks)**

PART – B

5 a. What is application state model? Give the steps required for construction of an application model? Draw the ATM application class model. **(10 Marks)**

b. What is a subsystem? Why are required breaking systems into subsystem? Describe the decomposition of systems into a sequence of horizontal layers as a subsystem. **(10 Marks)**

6 a. List and explain steps required for improving the organization of a class design. **(10 Marks)**

b. What is reverse engineering? Why we need reverse engineering? Compare and contrast forward engineering and reverse engineering. **(10 Marks)**

7 a. What is pattern? Describe the architectural pattern and design pattern. **(10 Marks)**

b. What is CRC? Explain the structure of client-dispatcher – server design pattern using CRC. **(10 Marks)**

8 a. What are idioms? Describe the various steps required to implement the counted pointer idiom. **(10 Marks)**

b. Write a note on : i) Benefits of view handler pattern
ii) Publisher – subscriber pattern. **(10 Marks)**

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