10CS71

Seventh Semester B.E. Degree Examination, Aug./Sept.2020
Object Oriented Modeling and Design

Time: 3 hrs.   Max. Marks:100

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

PART – A

1 a. What is Object-Oriented development methodology? Explain how the Object Oriented approach differs from traditional method or approach.   **(10 Marks)**
   b. What are links and associations? Write WML notation for links and association and explain with an example.   **(10 Marks)**

2 a. What is aggregation and composition? How is aggregation different from composition? Give their respective UML notations with example.   **(10 Marks)**
   b. What is an event? Explain different types of events with example.   **(10 Marks)**

3 a. How do you represent branching and concurrency in activity diagram?   **(10 Marks)**
   b. Draw usecase diagram for vending machine. What are the guidelines needed to be followed whole drawing use case diagram.   **(10 Marks)**

4 a. Explain the stages of software development which life cycle would you prefer in the development? Why?   **(10 Marks)**
   b. Describe domain analysis with an example.   **(10 Marks)**

PART – B

5 a. Discuss the steps followed in constructing application class model with the diagram.
                                                                                     (10 Marks)
   b. Explain the architecture of the ATM system with diagram.   **(10 Marks)**

6 a. Explain class design. Discuss the steps of a system design.   **(10 Marks)**
   b. How do you choose association traversal? Explain with an example.   **(04 Marks)**
   c. Write short notes on:
      i)   Forward Engineering
      ii) Reverse Engineering
      iii) Wrapping.   **(06 Marks)**

7 a. What is pattern? Explain the Model View-Controller design pattern for software architecture.   **(10 Marks)**
   b. Discuss the client dispatcher server design pattern.   **(10 Marks)**

8 a. What are Forwarder-Receiver design patterns? Give the steps to implement a forward receiver design patterns.   **(10 Marks)**
   b. What are Idioms? How they are helpful in selecting optimized solution for a given problem?   **(10 Marks)**

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