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10CS71

Seventh Semester B.E. Degree Examination, June/July 2023

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 object oriented development? Explain briefly the stages involved in object oriented methodology. (10 Marks)
- b. Discuss the purpose of three models. (06 Marks)
- c. Prepare a class diagram from the object diagram shown in Fig.Q1(c). Explain multiplicity decision. (04 Marks)

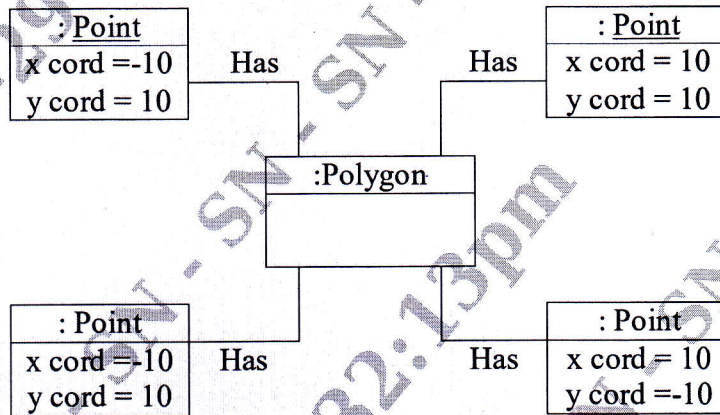


Fig.Q1(c)

- 2 a. Explain the following using suitable examples: (08 Marks)
 - (i) Enumerations
 - (ii) Scope
 - (iii) Multiplicity for attributes.
- b. What is an event? Discuss the various kinds of events using UML notations. (08 Marks)
- c. Design and describe a guarded transition diagram for traffic lights at an intersection. (04 Marks)
- 3 a. Prepare a use case diagram for computer email system with minimum two actors. Explain the relevance of each actor with corresponding use case. (08 Marks)
- b. Explain with suitable examples the following : (08 Marks)
 - (i) Include relationship
 - (ii) Extend relationship
- c. What are transient object? Exhibit transient object with a sequence diagram. (04 Marks)
- 4 a. With neat diagram, explain the process overview. (06 Marks)
- b. Explain the steps performed in constructing a domain state model with an example. (08 Marks)
- c. Explain the class model for an ATM system. (06 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.

PART - B

- 5 a. For an ATM example
i) Analyze the difference type use cases by designing a use case diagram. (12 Marks)
ii) Explain process transaction scenario. (08 Marks)
b. What is system design? Explain steps involved in it. (08 Marks)
- 6 a. List and explain the steps involved in design of algorithms. (08 Marks)
b. Write a brief note on Realizing algorithm. (08 Marks)
c. Write a note on wrapping. (04 Marks)
- 7 a. What is pattern? Explain the properties of pattern for Software Architecture. (10 Marks)
b. Describes the three categories of Patterns. (10 Marks)
- 8 Write short notes on
a. Structure part of command processor. (05 Marks)
b. Dynamic scenario of view handler (05 Marks)
c. Benefits of view handler (05 Marks)
d. Idioms and style. (05 Marks)
