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Seventh Semester B.E. Degree Examination, Jan./Feb. 2023

Object Oriented Modeling and Design

Max. Marks:100

Time: 3 hrs.

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

PART - A

- 1 a. Explain object oriented development, object oriented methodology and object oriented themes. (10 Marks)
- b. Explain modeling concept. Write the class model of a windowing system. (10 Marks)
- 2 a. Explain association and aggregation with examples. (10 Marks)
- b. What is an event? Explain the different types of events with examples. (10 Marks)
- 3 a. What is concurrency? Explain aggregation concurrency. Draw relevant figure. (10 Marks)
- b. Explain use case and sequence model with examples. (10 Marks)
- 4 a. Discuss the steps to construct a domain class model with an example. (12 Marks)
- b. Explain the software development stages. (08 Marks)

PART - B

- 5 a. Explain any 2 steps to construct an application model with an example. (06 Marks)
- b. Prepare a state diagram for session controller. (06 Marks)
- c. Explain batch transformation and continuous transformation architectural styles. (08 Marks)
- 6 a. List and explain the steps involved in the design of algorithms. (08 Marks)
- b. Write briefly on :
 - i) Fine tuning class (06 Marks)
 - ii) Design optimization. (06 Marks)
- c. Differentiate between forward engineering and reverse engineering. (06 Marks)
- 7 a. Define patterns. Explain the relationship between the patterns. (10 Marks)
- b. Explain forwarders-Receiver design patterns. (10 Marks)
- 8 a. With an example of multi-document editors explain view handler. (10 Marks)
- b. Explain how counted pointer idiom makes memory management of dynamically-allocated shared objects on C++ easier. (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 revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.