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## Question Paper Code: X 20401

## B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020 Fifth/Sixth Semester

Computer Science and Engineering CS 6502 – OBJECT ORIENTED ANALYSIS AND DESIGN (Common to Information Technology)

(Regulations 2013)

Time: Three Hours

Maximum: 100 Marks

## Answer ALL questions

PART - A (10×2=20 Marks)

- 1. Distinguish between method and message in object.
- 2. What are the three ways and perspectives to apply UML?
- 3. What is the difference between a Class and an Object?
- 4. What is an Object Modeling Language?
- 5. What is the relationship of a conceptual superclass to a subclass?
- 6. What is the purpose of extends and include relationship in use case diagram?
- 7. When to use Package diagrams and Collaboration diagram?
- 8. How to create an Instance?
- 9. What is refactoring?
- 10. What is Regression testing?

PART – B (5×13=65 Marks)

11. a) Explain briefly the elements of Use Case diagram. (13)

(OR)

b) With an example, explain the need for Activity Diagram. (13)

X 20401

12. a) Explain the following GRASP patterns: Creator, Information Expert, Low Coupling, High Coupling and Controller. (13)(OR) b) Explain in detail about the Factory Pattern and mention the limitations and applications of Factory Pattern. (13)13. a) Write about elaboration and discuss the differences between elaboration and inception with suitable diagram for university domain. (13)(OR) b) Construct design for Library Information System which comprises the following notations: i) Aggregations ii) Compositions iii) Associations. (13)14. a) Illustrate with an example, the relationship between sequence diagram and use cases. (13)(OR) b) Explain details about various static and dynamic UML important diagram with suitable example. (13)15. a) Explain in detail about the mapping of design to code implementation in an object oriented language. (13)(OR) b) Discuss in detail about OO Integration Testing and OO System Testing. (13)PART - C $(1\times15=15 \text{ Marks})$ 16. a) Discuss the various types of testing strategies in object oriented environment. (15) (OR) b) i) Draw and discuss an analysis model for Banking system. **(8)** ii) Explain the software development life cycle of object oriented approach. **(7)**