

Reg. No.

Question Paper Code

11533

**B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022**

Sixth Semester

**Computer Science and Engineering**

(Common to Information Technology)

**CS8592 - OBJECT ORIENTED ANALYSIS AND DESIGN**

(Regulations 2017)

Duration: 3 Hours

Max. Marks: 100

**PART - A (10 × 2 = 20 Marks)**

Answer ALL Questions

- |   | <i>Marks,<br/>K-Level, CO</i> |
|---|-------------------------------|
| 1. What is Unified Modeling Language (UML)?                                   | 2,K1,CO1                      |
| 2. Differentiate Iterative and Evolutionary Development.                      | 2,K2,CO1                      |
| 3. What is generalization? Give example.                                      | 2,K1,CO2                      |
| 4. Differentiate include from extend. Give example.                           | 2,K2,CO2                      |
| 5. List Modifiers used to indicate visibility of attributes in class diagram. | 2,K1,CO3                      |
| 6. Distinguish sequence diagram and Use case diagram..                        | 2,K2,CO3                      |
| 7. What is Bloated controller?  | 2,K1,CO5                      |
| 8. Define Design Pattern.   | 2,K1,CO5                      |
| 9. Differentiate alpha and beta testing?                                      | 2,K2,CO6                      |
| 10. List the needs of quality assurance.                                      | 2,K1,CO6                      |

**PART - B (5 × 13 = 65 Marks)**

Answer ALL Questions

- |   |           |
|---|-----------|
| 11. a) (i) Describe three perspectives to apply UML?  | 7, K2,CO1 |
| (ii) Describe Inception phase and its activities.   | 6, K2,CO1 |
| OR  |           |
| b) What is Unified Process? Explain Iterative Unified process and Agile Unified process.  | 13,K2,CO1 |
| 12. a) (i) Prepare and analyze a suitable example showing the various relationships used in Use Case and also give a short note on each relationship. | 7,K2,CO2  |
| (ii) Explain the types of actors in use case modeling.  | 6,K2,CO2  |
| OR  |           |
| b) Explain the benefits and concepts of Use Case model and evaluate the ATM system by relating Use Cases.   | 13,K2,CO2 |

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

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13. a) Summarize the Elaboration phase with its artifacts. Discuss the difference between elaboration and inception with example. *13,K2,CO3*
- OR
- b) Explain how to create domain model. Explain domain model creation with point of sale machine. *13,K2,CO3*
14. a) Illustrate the following GRASP patterns: *13,K2,CO5*
- (i) Creator  
(ii) Information Expert  
(iii) Low coupling  
(iv) High cohesion
- OR
- b) (i) Differentiate Adapter and Bridge pattern. *7, K2,CO5*  
(ii) Analyze the concept of Singleton pattern. *6, K2,CO5*
15. a) What is integration testing? Explain various testing for integration of system. *13,K2,CO6*
- OR
- b) Describe test plan. List out the steps are followed in developing a test plan? *13,K2,CO6*

**PART - C (1 × 15 = 15 Marks)**

16. a) With an example make use of the notations used in sequence diagram for the following: *15,K3,CO4*
- (i) Object destruction  
(ii) Frames  
(iii) Conditional message  
(iv) Mutually exclusive conditional message  
(v) Iterations over a collection
- OR
- b) Develop and draw the following UML diagrams for ATM Machine *15,K3,CO4*
- (i) Sequence diagram  
(ii) Activity diagram.  
(iii) State chart diagram