SNIST
Sreenidhi Institute of Science and Technology
AUTONOMOUS

H.T No

Sr_____gy
(An Autonomous Institution)

Regulations: A20

**Code No: 8F404**

**Date: 07-Aug-2023 (FN)**

**B.Tech II-Year II- Semester External Examination, Aug - 2023 (Regular & Supplementary)**
**SOFTWARE ENGINEERING AND OOAD (CSE and IT)**

**Time: 3 Hours**

**Max.Marks:70**

> **Note:** a) No additional answer sheets will be provided.
> b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
> c) Missing data can be assumed suitably.

### Bloom's Cognitive Levels of Learning (BCLL)

| Remember | L1 | Apply | L3 | Evaluate | L5 |
|----------|----|-------|----|----------|----|
| Understand | L2 | Analyze | L4 | Create | L6 |

## Part - A                                Max.Marks:20
### ANSWER ALL QUESTIONS

|  |  | BCLL | CO(s) | Marks |
|---|---|------|-------|-------|
| 1 | Describe the Characteristics of Software. | L1 | CO1 | [2M] |
| 2 | What is Multiplicity. Explain this concept with example. | L2 | CO2 | [2M] |
| 3 | List out the characteristics of good SRS document. | L1 | CO3 | [2M] |
| 4 | What is reverse Engineering? Illustrate a situation when this is performed for a product? | L4 | CO4 | [2M] |
| 5 | What are the 4 basic components of Behavior Modelling? | L1 | CO5 | [2M] |
| 6 | What is an Event? List various types of events in UML. | L1 | CO6 | [2M] |
| 7 | What does a CMMI do? What are the 5 stages of maturity model? | L1 | CO1 | [2M] |
| 8 | What are the various static diagrams in UML? | L1 | CO2 | [2M] |
| 9 | What is the importance of state machines? | L1 | CO6 | [2M] |
| 10 | What is user requirements and system requirements ? | L1 | CO3 | [2M] |

## Part – B                                Max.Marks:50
### ANSWER ANY FIVE QUESTIONS. EACH QUESTION CARRIES 10 MARKS.

|  |  |  | BCLL | CO(s) | Marks |
|---|---|---|------|-------|-------|
| 11. | a) | Discuss in brief about different Management and Customer Myths. | L6 | CO1 | [5M] |
|  | b) | Explain changing nature of software in detail. | L2 | CO1 | [5M] |
| 12. | a) | Illustrate various notations of UML diagrams in detail. | L4 | CO2 | [5M] |
|  | b) | Briefly explain Software development lifecycle. | L2 | CO2 | [5M] |
| 13. | a) | List out the types of SDLC models and explain spiral model of software engineering process. | L2 | CO3 | [5M] |
|  | b) | Compare and contrast Functional and Non-functional requirements with example. | L5 | CO3 | [5M] |
| 14. | a) | What is an object diagram in UML? What are the elements of an Object diagrams? Design an object diagrams for online shopping system. | L6 | CO4 | [5M] |
|  | b) | What are the common Modelling techniques for object diagram? | L1 | CO4 | [5M] |

15. a) What is activity diagram? design a Activity diagram for library L6   CO5   [5M]
management system.
   b) Compare sequence diagram and collaboration diagram with an L5   CO5   [5M]
example.

16. a) What is the Purpose of State Chart Diagram? Draw a state chart L6   CO6   [5M]
machine for Hospital; Management system.
   b) What does the component diagram represent? Explain with an L2   CO6   [5M]
example.

17. a) Explain the dual role of a Software. Distinguish between system L2   CO1   [4M]
software and embedded software.
   b) What are different types of relationships used in UML? Explain anyone L1   CO2   [3M]
with an example.
   c) Compare between incremental and Spiral model with an neat diagrams. L5   CO3   [3M]

18. a) What is Class Diagram? Design a class diagram for Hotel Management L6   CO4   [4M]
system.
   b) justify your answer with an example "Whether  Uses case diagram is L5   CO5   [3M]
static diagram or dynamic diagram"
   c) What is deployment diagram? Draw the deployment diagram for online L6   CO6   [3M]
trading system.

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