H.T No

Regulations: A20

(An Autonomous Institution)

**Code No:8F404** **Date: 08-August-2024 (FN)**

**B.Tech II-Year II- Semester External Examination, August-2024 (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 | What is the role of Software? | L1 | CO1 | [2M] |
| 2 | List the structural UML diagrams commonly used in software design. | L2 | CO2 | [2M] |
| 3 | List the task regions in the spiral model. | L2 | CO3 | [2M] |
| 4 | What is difference between 'Extend' and 'Include' in use cases? | L1 | CO4 | [2M] |
| 5 | Outline interaction diagrams. List the common notations used in interaction diagram | L3 | CO5 | [2M] |
| 6 | Name the commonly used architectural styles. | L4 | CO6 | [2M] |
| 7 | What are the umbrella activities of a software process?. | L1 | CO1 | [2M] |
| 8 | Describe the SRS Document | L2 | CO3 | [2M] |
| 9 | What are the different levels of testing in software development? | L1 | CO5 | [2M] |
| 10 | How water fall model is different from other engineering process models? | L4 | CO6 | [2M] |

## Part – B Max.Marks:50

## ANSWER ANY FIVE QUESTIONS. EACH QUESTION CARRIES 10 MARKS.

| | | | BCLL | CO(s) | Marks |
|---|---|---|---|---|---|
| 11. | a) | What is legacy software? Explain briefly its impact in software engineering. | L1 | CO1 | [5M] |
| | b) | Define the term Software. Describe its various characteristics | L2 | CO1 | [5M] |
| 12. | | Explain software development life cycle. Discuss various activities during SDLC | L2 | CO2 | [10M] |
| 13. | a) | Illustrate about software requirements document with an example. | L3 | CO3 | [5M] |
| | b) | Explain the following process models in detail. a) Iterative Development Model b) Time boxing Model | L2 | CO3 | [5M] |
| 14. | a) | Explain in detail about Package diagram with an example | L2 | CO4 | [5M] |
| | b) | Apply UML concepts to create a Class Diagram for the Course Registration System, and analyze it to identify functions and relationships among classes. | L3 | CO4 | [5M] |
| 15. | a) | Write the importance of UML in developing object oriented software. | L2 | CO5 | [5M] |
| | b) | Compare the influence of Use Case Diagrams on understanding system requirements in the Exam Registration System and the Recruitment System. Evaluate their importance and impact | L4 | CO5 | [5M] |
| 16. | a) | Draw the interaction diagram for login use case in library application. | L4 | CO6 | [5M] |
| | b) | Outline the steps in modeling an activity diagram with an Example and also explain the purpose of State Chart diagram, | L3 | CO6 | [5M] |

| | | | | | |
|---|---|---|---|---|---|
| 17. | a) | What are the five generic process framework activities? Explain | L1 | CO1 | [4M] |
| | b) | Discuss the common properties and uses of class diagrams? | L2 | CO2 | [3M] |
| | c) | Construct a plan for organizing and creating a comprehensive Software Requirement Specification (SRS). | L3 | CO3 | [3M] |
| 18. | a) | Outline interaction diagrams. List the common notations used in interaction diagram | L4 | CO4 | [4M] |
| | b) | Classify the Behavioral UML Diagrams commonly used in software design | L2 | CO5 | [3M] |
| | c) | Discuss about state machine model | L1 | CO6 | [3M] |

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