Code: 20CS3501

## **III B.Tech - I Semester – Regular / Supplementary Examinations NOVEMBER 2023**

## SOFTWARE ENGINEERING (COMPUTER SCIENCE & ENGINEERING)

**Duration: 3 hours** 

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

Max. Marks: 70

|         |             |   | BL | СО  | Max.  |  |  |  |
|---------|-------------|---|----|-----|-------|--|--|--|
|         |             |   |    |     | Marks |  |  |  |
|         | UNIT-I      |   |    |     |       |  |  |  |
| 1       | a)          | Explain about changing nature of software in detail.  | L2 | CO1 | 7     |  |  |  |
|         | b)          | Identify a specific scenario where<br>incremental process model can be applied<br>and justify with reasons. | L2 | CO2 | 7     |  |  |  |
| OR      |             |   |    |     |       |  |  |  |
| 2       | a)          | Discuss various types of software myths with realities.   | L2 | CO1 | 7 M   |  |  |  |
|         | b)          | Select appropriate process model to develop a project using Agile methodology.                              | L3 | CO2 | 7 M   |  |  |  |
| UNIT-II |             |   |    |     |       |  |  |  |
| 3       | a)          | Demonstrate various non-functional  | L3 | CO2 | 7 M   |  |  |  |
|         |             | requirements to establish the ground work   |    |     |       |  |  |  |
|         | Page 1 of 3 |   |    |     |       |  |  |  |

|         |    | for the understanding of software requirements.   |    |     |     |
|---------|----|---|----|-----|-----|
|         | b) | Illustrate with an example how use case scenarios help in requirements elicitation.                 | L3 | CO2 | 7 M |
|         | I  | OR  |    | 11  |     |
| 4       | a) | Explain in detail about Agile requirements<br>Elicitation techniques.                               | L2 | CO2 | 7 M |
|         | b) | Demonstrate Scenario based modeling for<br>Requirements Analysis.                                   | L3 | CO2 | 7 M |
|         |    | UNIT-III  |    |     |     |
| 5       | a) | Identify various software quality attributes<br>and guidelines to be followed in Design<br>process. | L2 | CO3 | 7 M |
|         | b) | Explain in detail Architectural and Interface design elements in design modeling.                   | L2 | CO3 | 7 M |
|         | I  | OR  |    | 11  |     |
| 6       | a) | Explain various design concepts in detail.  | L2 | CO4 | 7 M |
|         | b) | Explain the concept refining the Architecture into Components.                                      | L2 | CO4 | 7 M |
| UNIT-IV |    |   |    |     |     |
| 7       | a) | Discriminate suitable testing strategies for conventional software.                                 | L3 | CO4 | 7 M |
|         | b) | Define Debugging and explain in detail the art of debugging.  | L2 | CO4 | 7 M |

| OR     |    |  |    |     |     |  |
|--------|----|--|----|-----|-----|--|
| 8      | a) | Illustrate the basic path testing with an example.   | L2 | CO4 | 7 M |  |
|        | b) | Compare and contrast White box testing and<br>Black box testing techniques.  | L3 | CO4 | 7 M |  |
| UNIT-V |    |  |    |     |     |  |
| 9      | a) | Interpret various risk projection steps and<br>specific projection activities for any two<br>critical risks in software development. | L3 | CO3 | 7 M |  |
|        | b) | Discuss the major SQA tasks to be followed<br>in order to achieve Software Quality<br>Assurance.                                     | L3 | CO3 | 7 M |  |
|        |    | OR   |    |     |     |  |
| 10     | a) | Prepare RMMM plan for refining the risks.  | L4 | CO3 | 7 M |  |
|        | b) | Illustrate in detail about ISO9000 quality standards.  | L3 | CO3 | 7 M |  |