## DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

### Supplementary Winter Examination-2023

Course: B. Tech.      Branch: Information Technology      Semester: V

Subject Code & Name: BTITC501 Software Engineering

Max Marks: 60          Date: 01/01/2024          Duration: 3 Hr.

*Instructions to the Students:*
1. *All the questions are compulsory.*
2. *The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in ( ) in front of the question.*
3. *Use of non-programmable scientific calculators is allowed.*
4. *Assume suitable data wherever necessary and mention it clearly.*

|  |  | (Level/CO) | Marks |
|---|---|---|---|
| **Q. 1** | **Solve Any Two of the following.** |  | 12 |
| A) | Describe Practitioner's Myths about Software and the true aspects of these myths. | CO 1 | 6 |
| B) | Give the comparison between Prototyping and Spiral Models. | CO 1 | 6 |
| C) | Describe Waterfall model with applications. Give certain reasons for its failure. | CO 1 | 6 |
| **Q.2** | **Solve Any Two of the following.** |  | 12 |
| A) | Explain the different types of coupling with examples. | CO 2 | 6 |
| B) | Enlist the distinct tasks involved in requirement engineering process. Explain any three tasks in detail. | CO 2 | 6 |
| C) | Draw a Use case Diagram for Library Management System. | CO 2 | 6 |
| **Q. 3** | **Solve Any Two of the following.** |  | 12 |
| A) | Explain Alpha and Beta testing. | CO 2 | 6 |
| B) | Explain what is cyclomatic complexity and different methods to calculate it. Find cyclomatic complexity of following code: | CO 2 | 6 |

IF A > 10 THEN
IF B > C THEN
A = B
ELSE
A = C
ENDIF
ENDIF
PRINT A
PRINT B
PRINT C

| C) | What is Unit testing? Differentiate between black box and white box testing. | CO 2 | 6 |
|---|---|---|---|
| **Q.4** | **Solve Any Two of the following.** |  | 12 |
| A) | Explain Constructive Cost Model in detail. | CO 3 | 6 |

B) Using COCOMO, Obtain effort estimation, duration estimation and person estimation for a Semi-detached mode of software project with 2000 lines of code.    CO 3    6

C) Explain size oriented and function-oriented metrics with one example each.    CO 3    6

**Q. 5 Solve Any Two of the following.**    12

A) Write a note on: RMMM    CO 4    6

B) Explain the various steps involved in change and version control.    CO 4    6

C) Explain Software Quality assurance and Quality Control.    CO 4    6

*** End ***