## **III B.Tech - I Semester – Regular Examinations - DECEMBER 2022**

## SOFTWARE ENGINEERING (MINORS in COMPUTER SCIENCE & ENGINEERING)

Duration: 3 hours

Max. Marks: 70

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

| Image: Bit line line line line line line line line   |         |        |   | BL | СО  | Max.  |  |  |  |
|--|---------|--------|---|----|-----|-------|--|--|--|
| 1a)Explain incremental development process model<br>in detail.L2CO27 Mb)Explain different types of myths about software<br>development and analyze their effect on overall<br>outcome of the software.L2CO17 M2a)Define software process and analyze the need of<br>software process frame work.L2CO17 Mb)Illustrate the Evolutionary process model in<br>detail.L3CO27 MUNIT-II3a)Discuss about various steps in requirements<br>engineering process.L2CO47 Mb)Illustrate the steps in scenario-based requirements<br>modeling with appropriate example.L3CO47 M  |         |        |   |    |     | Marks |  |  |  |
| in detail. in detail.   b) Explain different types of myths about software development and analyze their effect on overall outcome of the software. L2 CO1 7 M   2 a) Define software process and analyze the need of software process frame work. L2 CO1 7 M   b) Illustrate the Evolutionary process model in detail. L3 CO2 7 M   UNIT-II   3 a) Discuss about various steps in requirements L2 CO4 7 M   b) Illustrate the steps in scenario-based requirements L3 CO4 7 M   |         | UNIT-I |   |    |     |       |  |  |  |
| b)Explain different types of myths about software<br>development and analyze their effect on overall<br>outcome of the software.L2CO17 MOR2a)Define software process and analyze the need of<br>software process frame work.L2CO17 Mb)Illustrate the Evolutionary process model in<br>detail.L3CO27 MUNIT-II3a)Discuss about various steps in requirements<br>engineering process.L2CO47 Mb)Illustrate the steps in scenario-based requirements<br>modeling with appropriate example.L3CO47 M  | 1       | a)     | Explain incremental development process model       | L2 | CO2 | 7 M   |  |  |  |
| Image: Constraint of the second of the software effect on overall outcome of the software. Image: Constraint of the software effect on overall outcome of the software.   Image: Constraint of the software effect on overall outcome of the software effect on overall software effect on overall outcome of the software. Image: Constraint of the software effect on overall outcome of the software effect on overall outcome of the software.   Image: Constraint of the software effect on overall software effect on overall software effect on overall outcome of the software. Image: Constraint of the software effect on overall outcome of the software effect on overall outcome of the software effect on overall outcome of the software.   Image: Constraint of the software effect on overall software effect on overall software effect on overall outcome of the software effec |         |        | in detail.  |    |     |       |  |  |  |
| outcome of the software. OR   2 a) Define software process and analyze the need of software process frame work. L2 CO1 7 M   b) Illustrate the Evolutionary process model in detail. L3 CO2 7 M   UNIT-II   3 a) Discuss about various steps in requirements log colspan="3">L2 CO4 7 M   b) Illustrate the steps in scenario-based requirements log colspan="3">L3 CO4 7 M  |         | b)     | Explain different types of myths about software     | L2 | CO1 | 7 M   |  |  |  |
| OR   2 a) Define software process and analyze the need of software process frame work. L2 CO1 7 M   b) Illustrate the Evolutionary process model in detail. L3 CO2 7 M   UNIT-II   3 a) Discuss about various steps in requirements log colspan="3">L2 CO4 7 M   b) Illustrate the steps in scenario-based requirements log colspan="3">L3 CO4 7 M   |         |        | development and analyze their effect on overall     |    |     |       |  |  |  |
| 2 a) Define software process and analyze the need of software process frame work. L2 CO1 7 M   b) Illustrate the Evolutionary process model in detail. L3 CO2 7 M   UNIT-II   3 a) Discuss about various steps in requirements engineering process. L2 CO4 7 M   b) Illustrate the steps in scenario-based requirements modeling with appropriate example. L3 CO4 7 M  |         |        | outcome of the software.                            |    |     |       |  |  |  |
| software process frame work. software process frame work.   b) Illustrate the Evolutionary process model in L3 CO2 7 M detail.   UNIT-II   3 a)   Discuss about various steps in requirements L2 CO4 7 M engineering process.   b) Illustrate the steps in scenario-based requirements L3 CO4 7 M modeling with appropriate example.   |         |        | OR  |    |     |       |  |  |  |
| b) Illustrate the Evolutionary process model in L3 CO2 7 M   detail. UNIT-II UNIT-II   3 a) Discuss about various steps in requirements L2 CO4 7 M   b) Illustrate the steps in scenario-based requirements L3 CO4 7 M   b) Illustrate the steps in scenario-based requirements L3 CO4 7 M   | 2       | a)     | Define software process and analyze the need of     | L2 | CO1 | 7 M   |  |  |  |
| detail. UNIT-II   3 a) Discuss about various steps in requirements L2 CO4 7 M engineering process.   b) Illustrate the steps in scenario-based requirements modeling with appropriate example. L3 CO4 7 M  |         |        | software process frame work.                        |    |     |       |  |  |  |
| UNIT-II3 a)Discuss about various steps in requirementsL2CO47 Mengineering process.b)Illustrate the steps in scenario-based requirementsL3CO47 Mb)Illustrate the steps in scenario-based requirementsL3CO47 M   |         | b)     | Illustrate the Evolutionary process model in        | L3 | CO2 | 7 M   |  |  |  |
| 3a)Discuss about various steps in requirementsL2CO47 Mengineering process.b)Illustrate the steps in scenario-based requirementsL3CO47 Mmodeling with appropriate example.co4co4co4co4  |         |        | detail.   |    |     |       |  |  |  |
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| engineering process.engineering process.b)Illustrate the steps in scenario-based requirementsL3CO47 Mmodeling with appropriate example.  | UNIT-II |        |   |    |     |       |  |  |  |
| b) Illustrate the steps in scenario-based requirements L3 CO4 7 M modeling with appropriate example.   | 3       | a)     | Discuss about various steps in requirements         | L2 | CO4 | 7 M   |  |  |  |
| modeling with appropriate example.   |         |        | engineering process.                                |    |     |       |  |  |  |
|  |         | b)     | Illustrate the steps in scenario-based requirements | L3 | CO4 | 7 M   |  |  |  |
| OR   |         |        | modeling with appropriate example.                  |    |     |       |  |  |  |
|  |         |        |   |    |     |       |  |  |  |

|          | a)   | Illustrate the process of analyzing functional and        | L3  | CO2   | 7 M   |  |  |  |
|----------|------|---|-----|-------|-------|--|--|--|
|          |      | nonfunctional requirements of a software with             |     |       |       |  |  |  |
| -        | b)   | examples.<br>Describe how to build a requirement analysis | L2  | CO4   | 7 M   |  |  |  |
|          | 0)   | model in detail.  |     |       | / 111 |  |  |  |
|          |      |   |     | II    |       |  |  |  |
| UNIT-III |      |   |     |       |       |  |  |  |
| 5        | a)   | Describe about the information flow in translating        | L2  | CO2   | 7 M   |  |  |  |
|          |      | the requirements model to the design model with           |     |       |       |  |  |  |
| _        |      | neat sketch.  |     |       |       |  |  |  |
|          | b)   | Illustrate how architecture styles are used at            | L3  | CO4   | 7 M   |  |  |  |
|          |      | architecture design level.                                |     |       |       |  |  |  |
|          |      | OR  |     |       |       |  |  |  |
| 6        | a)   | Discuss about various fundamental software                | L2  | CO1   | 7 M   |  |  |  |
|          |      | design concepts in brief.                                 |     |       |       |  |  |  |
|          | b)   | What is Software architecture? Analyze why it is          | L3  | CO4   | 7 M   |  |  |  |
|          |      | necessary to design the system architecture before        |     |       |       |  |  |  |
|          |      | the specifications.                                       |     |       |       |  |  |  |
|          |      |   |     |       |       |  |  |  |
|          |      | UNIT-IV   |     |       |       |  |  |  |
| 7        | a)   | Explain about the strategic approaches to                 | L2  | CO1   | 7 M   |  |  |  |
| -        | 4 \  | software testing.   |     | ~ ~ • |       |  |  |  |
|          | b)   | Write about debugging process and strategies in           | L2  | CO2   | 7 M   |  |  |  |
|          |      | detail with neat sketch.                                  |     |       |       |  |  |  |
|          |      | OR  | 1.0 | 000   |       |  |  |  |
| 8        | a)   | Discuss about the test strategies for object-             | L2  | CO2   | 7 M   |  |  |  |
| -        | 1. \ | oriented software.  | 1.0 |       | 7 1 4 |  |  |  |
|          | b)   | Define black box testing. Write about various             | L2  | CO1   | 7 M   |  |  |  |
|          |      | methods in black box testing.                             |     |       |       |  |  |  |

| UNIT-V |    |   |    |     |     |  |  |  |
|--------|----|---|----|-----|-----|--|--|--|
| 9      | a) | Discuss about the methods for Risk Identification | L2 | CO3 | 7 M |  |  |  |
|        |    | in detail   |    |     |     |  |  |  |
|        | b) | What do you mean by RMMM? Illustrate              | L3 | CO3 | 7 M |  |  |  |
|        |    | RMMM plan with example.                           |    |     |     |  |  |  |
|        | OR |   |    |     |     |  |  |  |
| 10     | a) | Define Risk Exposure. Demonstrate how to          | L3 | CO3 | 7 M |  |  |  |
|        |    | assess risk impact with an example.               |    |     |     |  |  |  |
|        | b) | Describe the methods for Risk Projection.         | L2 | CO3 | 7 M |  |  |  |