



R18 Regulation

Subject code:2P4EE

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

## B.Tech IV Semester Supplementary Examinations, December 2025

### SOFTWARE ENGINEERING

(CSE)

Maximum Marks: 70

Date: 29.12.2025

Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
  2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
  3. Part B consists of 5 Units. Answer any one full question from each unit.
  4. Each question carries 10 marks and may have a, b, c, d as sub questions.

#### Part-A

| All the following questions carry equal marks (10X2M=20 Marks) |   | Marks | CO | BTL |
|--|---|-------|----|-----|
| 1  | Compare waterfall model and spiral model.   | 2M    | 1  | L1  |
| 2  | What is software engineering activity?  | 2M    | 1  | L1  |
| 3  | Explain the kinds of system requirements  | 2M    | 2  | L1  |
| 4  | What are functional requirements for software?  | 2M    | 2  | L1  |
| 5  | List out Quality attributes.  | 2M    | 3  | L1  |
| 6  | What is cohesion?   | 2M    | 3  | L1  |
| 7  | What are the testing principles the software engineer must apply while performing the software testing? | 2M    | 4  | L1  |
| 8  | What is the difference between STLC&SDLC?   | 2M    | 4  | L1  |
| 9  | Give a short notes on formal technical reviews  | 2M    | 5  | L1  |
| 10   | Describe six sigma for software   | 2M    | 5  | L1  |

#### Part-B

| Answer All the following questions. (5X10M=50Marks) |   | Marks | CO | BTL |
|---|---|-------|----|-----|
| 11  | Explain changing nature of software in detail   | 10M   | 1  | L2  |
| OR  |   |       |    |     |
| 12  | Explain briefly about any two Software development process models.                          | 10M   | 1  | L2  |
| 13  | Which model in system modelling depicts the static nature of the system? Explain in detail. | 10M   | 2  | L2  |
| OR  |   |       |    |     |
| 14  | What is software management? Explain in detail.   | 10M   | 2  | L2  |
| 15  | Discuss fundamental principles of structured design. Write notes on transform analysis.     | 10M   | 3  | L2  |
| OR  |   |       |    |     |
| 16  | What are the design concepts in software engineering?                                       | 10M   | 3  | L2  |

|    |   |     |   |    |
|----|---|-----|---|----|
| 17 | Discuss a framework for product metrics.  | 10M | 4 | L2 |
|    | OR  |     |   |    |
| 18 | Demonstrate art of debugging. Demonstrate metrics for analysis model.             | 10M | 4 | L2 |
| 19 | Explain about Quality concepts? Describe metrics for source code and for testing. | 10M | 5 | L2 |
|    | OR  |     |   |    |
| 20 | Explain about the importance of test strategies for conventional software.        | 10M | 5 | L2 |