



R20 Regulations

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 3P5FA

B.Tech V Semester Regular Examinations, January 2023

SOFTWARE ENGINEERING (INFORMATION TECHNOLOGY)

Maximum Marks: 70

Date: 18.01.2023 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 which carries 10M.
 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)

- 1 Define a layered technology.
- 2 Write about Personal and Team process models?
- 3 What is Requirements management.
- 4 Define Object models.
- 5 What is Design quality?
- 6 Write about Architectural styles?
- 7 Define Debugging.
- 8 Write Software Metrics for software quality?
- 9 Define Risk identification.
- 10 Define Software quality Assurance.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 A. Define the term Software. Describe its various characteristics. (5M)
B. Elaborate on the changing nature of software in detail. (5M)
OR
- 12 A. Explain software development life cycle. Discuss various activities during SDLC. (5M)
B. Explain CMMI in detail? (5M)
- 13 A. Explain how a software requirements document is structured. (5M)
B. Explain Data models and Object models. (5M)
OR
- 14 A. Draw the complete DFD at least up to 2-levels for a library management system. (5M)
B. Discuss about principal requirements engineering activities and their relationships. (5M)
- 15 A. What is Design Engineering and Discuss about Design process and Design quality? (5M)
B. Illustrate Software Architectural styles and patterns? (5M)
OR
- 16 A. What is UML and Discuss Class diagrams in UML? (5M)
B. Explain Design concepts and the design models? (5M)

- 17 A. What is Software Quality and explain Framework for Product metrics? (5M)
B. Explain Black-Box and White-Box testing? (5M)

OR

- 18 A. Discuss about Validation testing and System testing? (5M)
B. Explain Different Strategic approaches to software testing? (5M)

- 19 A. Illustrate Reactive vs. Proactive Risk strategies? (5M)
B. Explain RMMM Plan? (5M)

OR

- 20 A. Explain ISO 9000 quality standards? (5M)
B. Explain Software Reviews and explain Formal technical reviews? (5M)