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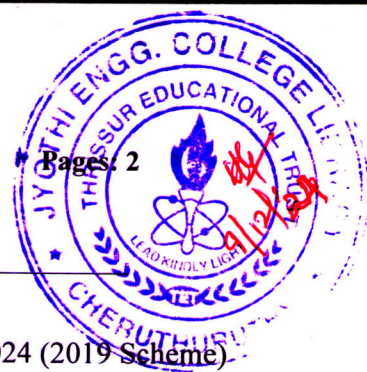
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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S5 (R, S) / S5 (PT) (R,S) / S5 (WP) (R) Examination November 2024 (2019 Scheme)

Course Code: CST 309

Course Name: MANAGEMENT OF SOFTWARE SYSTEMS

Max. Marks: 100   Duration: 3 Hours

PART A

(Answer all questions; each question carries 3 marks)   Marks

1	Differentiate plan-driven and agile software development approach.	3
2	Explain the process of Software Specifications.	3
3	What are the generic activities needed in requirement engineering process.	3
4	Explain any three design concepts in Software Engineering.	3
5	What is meant by open source licensing?	3
6	Explain formal technical review	3
7	Explain different categories of risk.	3
8	What are the fundamental project management activities.	3
9	Outline the elements of a SPI framework.	3
10	Compare CMMI and ISO 9001:2000.	3

PART B

(Answer one full question from each module, each question carries 14 marks)

Module -1

11	a)	What are the key phases of Boehm's Spiral Model, and how do they contribute to project success?	10
	b)	What are the advantages of using the Spiral Model compared to other development models?	4
12	a)	How does the Agile Manifesto serve as a guiding framework for Agile practices?	7
	b)	What are the roles and responsibilities of team members in an Agile environment?	7

Module - 2

13 a) How can scenarios help in identifying usability issues and enhancing user experience? 7

    b) What is a user story and what are the benefits of involving stakeholders in the creation of user stories? 7

14 a) How does requirements traceability reflect the ease of finding related requirements? 6

    b) Discuss the steps involved in the Architectural design process. 8

Module - 3

15 a) Explain the different tests involved in system testing? 7

    b) Discuss how the black box testing focuses on the functional requirements of the software. 7

16 a) Why is test documentation necessary? What are the types of testing documents? 7

    b) Compare software re-engineering and refactoring for software maintenance. 7

Module - 4

17 a) Explain SCRUM frame work for software development. 7

    b) Explain plan driven development and project scheduling 7

18 a) Define software configuration management. Explain different activities involved in configuration management. 8

    b) Explain the different factors influencing the project management. 6

Module -5

19 a) Elaborate on the cost of quality. 5

    b) What are the key quality attributes identified by the ISO 9126 standard? 9

20 a) What are the five maturity levels in CMMI, and what does each level represent? 10

    b) How do services communicate in a microservices architecture? 4

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