

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S5 (S,FE) (FT/WP/PT) Examinations May/June 2026 (2019 Scheme)



Course Code: CST309

Course Name: MANAGEMENT OF SOFTWARE SYSTEMS

Max. Marks: 100

Duration: 3 Hours

PART A

(Answer all questions; each question carries 3 marks)

		Marks
1	List out any three software process models	3
2	Explain Agile Development techniques	3
3	Define Personas in software process	3
4	What are the non-functional requirements in software engineering?	3
5	Explain open-source software development?	3
6	What are design patterns	3
7	List out the factors that affect software pricing.	3
8	Explain the stages of Agile software planning.	3
9	What are the key quality attributes for computer software identified by the ISO 9126 standard?	3
10	What are the benefits of using the cloud for software development	3

PART B

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

Module -1

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|----|---|----|
| 11 | a) What is incremental delivery, and how does it differ from traditional waterfall models? | 10 |
| | b) What are the advantages of using an incremental delivery approach in software development? | 4 |
| 12 | a) What is the Agile Manifesto, and why was it created? | 7 |
| | b) What are the roles and responsibilities of team members in an Agile environment? | 7 |

Module -2

- 13 a) What are the common architectural styles and how do you choose the appropriate architectural style for a given software project? 7
- b) What are the principles of component-based design, and how do they enhance software re-usability? 7
- 14 a) What are the key phases of the requirements engineering process? 6
- b) How do fundamental design concepts contribute to the robustness of software systems? 8

Module -3

- 15 a) What are the different categories of errors uncovered by performing black box testing? Briefly explain, Graph Based testing and Boundary Value Analysis. 10
- b) How does a formal technical review differ from an informal review? 4
- 16 a) Explain white box testing and how test cases are designed with path testing. 6
- b) Discuss the aspects of DevOps automation. 8

Module -4

- 17 a) What are the different activities involved in the risk management process? 10
- b) Discuss the importance of effective and efficient group communication. 4
- 18 a) Explain the importance of version management in the configuration management process. 8
- b) What is algorithmic cost modeling? What problems does it suffer from when compared with other approaches to cost estimation? 6

Module -5

- 19 a) Define software quality. 4
- b) What are the quality dimensions suggested by Garvin? 10
- 20 a) Explain what is "everything as a service" in cloud computing. 9
- b) What are the benefits of adopting a microservice architecture for software development? 5
