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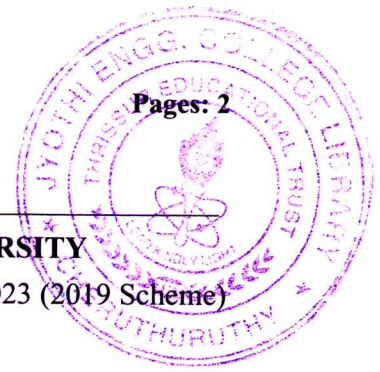
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Reg No.: \_\_\_\_\_

Name: \_\_\_\_\_

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S5 (R, S) /S5 (PT) (R, S) Examination December 2023 (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	List out any three software process models.	3
2	What are the essential attributes of professional software engineering?	3
3	Mention any three reasons to justify software architecture is important.	3
4	List out the generic activities needed in requirement engineering process.	3
5	Explain Post-mortem evaluation in software process.	3
6	Compare white box testing with black box testing.	3
7	Explain any two techniques used for software cost estimation.	3
8	Mention any three features of software version management.	3
9	Describe the different types of failures in microservice systems?	3
10	What are the software quality factors described under ISO 9001:2000?	3

**PART B**

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

**Module -1**

- 11 a) Explain the various stages of Waterfall model. Also list out any three situations where Waterfall model is only applicable. 7
- b) Explain the principles of Agile software development. 7
- 12 a) Mention the situations where Bohem's spiral model is used for software design. Also list out the advantages and disadvantages of spiral model. 7
- b) Explain software process activities. 7

**Module -2**

- 13 a) Explain functional and non-functional requirements in software engineering. 7
- b) What is a software component? Explain the process of designing class-based components. 7

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- 14 a) Explain the different stages in requirement elicitation. 7  
b) Define Personas in software process. Also explain the different aspects of Persona. 7

**Module -3**

- 15 a) Explain the following open-source licence management. 7  
(i) GPL (ii) LGPL (iii) BSD  
b) Explain code management process and DevOps automation. 7  
16 a) Describe validation testing and integration testing methods of software. 7  
b) Explain software evolution processes and software management. 7

**Module -4**

- 17 a) Explain the different factors influencing the project management. 7  
b) With suitable diagram explain risk management process. 7  
18 a) Explain SCRUM frame work for software development. 7  
b) Describe the process of release and configuration management in software. 7

**Module -5**

- 19 a) Describe the various methods for achieving software quality. 7  
b) Explain the different tasks performed by an independent SQA group. 7  
20 a) Describe virtualization and container-based virtualization in cloud server. 7  
b) Explain CMMI software process improvement framework. 7

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