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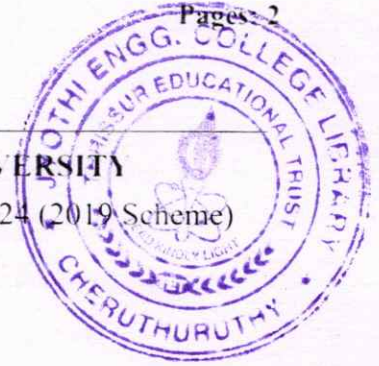Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S5 (S, FE) / S5 (PT) (S) Examination June 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	Mention the ethics of software engineering.	3
2	List out the situations where spiral model is used for software process.	3
3	What are the non-functional requirements in software engineering?	3
4	Explain the significance of Traceability matrix in software design.	3
5	What are the advantages of open-source software development?	3
6	Mention any three debugging strategies.	3
7	List out any three objectives of software project management.	3
8	Explain the stages of Agile software planning.	3
9	What are the important characteristics of a microservices?	3
10	Explain the features of a cloud-based software.	3

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

Module -1

11	a)	Draw and explain the process of Software Specifications.	7
	b)	Explain Waterfall model of software design	7
12	a)	Explain the principles of Agile software development.	7
	b)	What is meant by incremental delivery of software? Mention its advantages and disadvantages.	7

Module -2

13	a)	Explain different software Architectures.	7
	b)	With respect to software engineering explain (i) Personas (ii) Scenarios (iii) User stories	7
14	a)	Explain the process of requirements validation in software process.	7

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b) What is meant by component-level design in software? Also explain the design of   7
component level in web-apps.

Module -3

15 a) Explain formal technical review. Also explain the objectives of technical review.   7

b) What is meant by path testing in software design. Also explain the process of path   7
testing.

16 a) Explain various types of testing documentation and its importance.   7

b) Describe white box testing. Also mention the advantages of white box testing over   7
black box testing.

Module -4

17 a) Define risk and risk management. Also explain different categories of risk.   7

b) Describe Kanban methodology and lean approaches in software project   7
management.

18 a) Explain version management in software engineering.   7

b) Explain COCOMO software cost estimation model.   7

Module -5

19 a) Explain various elements of software quality assurance.   7

b) Describe the architecture of microservices. Also explain the architecture design   7
decisions.

20 a) Explain the basic and intermediate level services provided by a cloud service.   7

b) Describe the process of software measurements and metrics.   7

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