

E

11000CST309122302

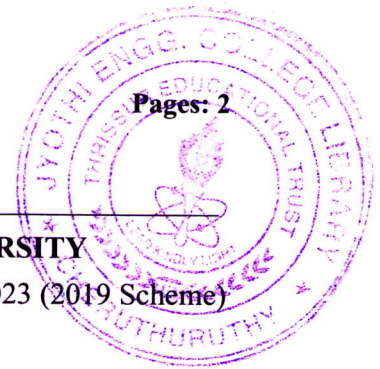
Pages: 2

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 |

- 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
