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Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S6 (S, FE) / S4 (PT) (S, FE) Examination January 2024 (2015 Scheme)

Course Code: CS308

Course Name: SOFTWARE ENGINEERING AND PROJECT MANAGEMENT

Max. Marks: 100 Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks. Marks

1		Explain the major differences between software engineering and other traditional engineering disciplines.	(3)
2		Compare spiral model and incremental model for software development.	(3)
3		List out the characteristics of a good SRS document.	(3)
4		Explain the stages of ISO 9000 registration process.	(3)

PART B

Answer any two full questions, each carries 9 marks.

5	a)	Illustrate the layered architecture of software engineering with a neat sketch.	(4)
	b)	Describe Boehm's spiral model for software development with a neat diagram.	(5)
6	a)	Compare ISO and SEI-CMM models.	(4)
	b)	Explain any two techniques used in requirement elicitation and analysis.	(5)
7	a)	An organization is given a software project on behalf of certain customer who is unsure of their requirements and likely to change their requirements. Identify the suitable life cycle model to be used in this scenario and explain that model in detail.	(5)
	b)	An organization advertises that it is at SEI CMM level 3. Infer the quality practices followed in the company. Explain how the company can reach SEI CMM level 5.	(4)

PART C

Answer all questions, each carries 3 marks.

8		List out the project planning objectives.	(3)
9		List out the important properties of a modular system.	(3)
10		Explain with an example how equivalence class partitioning helps in testing.	(3)
11		Differentiate between Top-down and Bottom-up Integration testing methods.	(3)

PART D

Answer any two full questions, each carries 9 marks.

12	a)	Define Coupling. Explain different types of coupling.	(5)

	b)	Differentiate between function oriented and object-oriented design approaches with a suitable example.	(4)
13	a)	Explain System testing and its variants.	(4)
	b)	Explain basic path coverage testing with example.	(5)
14	a)	Explain cyclomatic complexity analysis with suitable example.	(4)
	b)	Explain all the levels of COCOMO model.	(5)

PART E

Answer any four full questions, each carries10 marks.

15	a)	Identify the various types of risks in software project development.	(4)
	b)	Explain the Software Risk management process with the help of neat diagram.	(6)
16	a)	Explain the role of people, product, process and project in Software engineering.	(4)
	b)	What is risk identification? How risks are monitored and managed by project Managers?	(6)
17	a)	What is software maintenance? Describe in brief various categories of maintenance.	(4)
	b)	Explain the various software maintenance models with the help of diagram.	(6)
18	a)	Explain the term software configuration management? Explain different activities involved in configuration management.	(5)
	b)	Briefly explain how to define a task set for the software project.	(5)
19	a)	Explain the building blocks of CASE.	(5)
	b)	Write a short note on taxonomy of CASE tools.	(5)
20	a)	Write the different activities of software project management.	(4)
	b)	Describe the golden rules for User Interface Design.	(6)

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