Enrollment No.: _____

Darshan Institute of Engineering & Technology

B.Tech. | Sem-5 | Summer-2024

Course Code	:	2101CS503	**Date**	:	18-05-2024
Course Name	:	Software Engineering	**Duration**	:	150 Minutes
			Total Marks	:	70

Instructions:

1. Attempt all the questions.
2. Figures to the right indicates maximum marks.
3. Make suitable assumptions wherever necessary.

Q.1	**(A)**	List different software application domains.	**4**
	(B)	if you have developed a word processing software product, what process model will you choose? justify the answer and explain.	**3**
		OR	
		Explain Software Engineering as a Layered technology.	
	(C)	Compare the life cycle models based on their distinguishing factors, strengths and weaknesses.	**7**
		OR	
		Assume that you are the technical manager of a software development organization. A client approached you for a software solution the problems stated by the client have uncertainties which lead to loss if it not planned and solved which software development model you will suggest for this project. justify. Explain the model with its pros and cons and neat sketch.	
Q.2	**(A)**	Explain the concept of Adaptive Software Development.	**4**
	(B)	Explain Scrum Roles and Responsibilities of Product owner.	**3**
		OR	
		Explain Scrum Roles and Responsibilities of Scrum Master.	
	(C)	Explain Scrum framework.	**7**
		OR	
		Explain Planning Poker and T-Shirt Sizes estimation technique.	
Q.3	**(A)**	Prepare use case diagram of library management system.	**4**
	(B)	Prepare activity diagram of book issue.	**3**
		OR	
		Prepare sequence diagram of book issue	
	(C)	Prepare functional requirement of college management System	**7**
		OR	

Prepare class diagram of bank management system

Q.4	**(A)**	Explain Six Sigma.	**4**
	(B)	Differentiate between software quality assurance and quality control.	**3**
		OR	
		Difference between Verification & Validation.	
	(C)	Explain White Box testing with an example	**7**
		OR	
		What are the different testing strategies? Explain any one with suitable example.	
Q.5	**(A)**	Explain Types of Software Maintenance.	**4**
	(B)	Explain different type of risk	**3**
		OR	
		Explain Component-Based Software Engineering.	
	(C)	Explain DevOps and its key principles.	**7**
		OR	
		Explain COCOMO model for project estimation.	

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