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21CST601

# Sixth Semester B. E. Degree Semester End Examination (SEE)

### **Model Question Paper - 2**

## **SOFTWARE ENGINEERING AND PROJECT MANAGEMENT**

Time: 3 Hours [Maximum Marks: 100

#### **Instructions to Students:**

Q No		Questions	Marks	CO	RBT Cognitive Level
1	a)	List various prescriptive process models. Explain any two models in detail.	7	CO1	L2
	b)	With a neat diagram, describe the unified process model for software development.	7	CO1	L2
	c)	With a neat diagram, illustrate the Extreme Programming process.	6	CO1	L3
		OR			
2	a)	Define software engineering and the software process.  Describe a generic process framework for software engineering.	10	CO1	L2
	b)	Explain the following agile process models: Scrum, DSDM and Agile Modeling.	10	CO1	L2
3	a)	Develop a complete use cases for the following activities:  (i) University Library System  (ii) Buying a Stock using an online brokerage account  (iii) Using credit card at a Restaurant	9	CO2	L4
	b)	Suggest who might be stakeholders in a Hospital management system. Explain why it is almost inevitable that the requirements of different stakeholders will conflict in some way.	6	CO2	L4
	c)	How to validate requirements? Describe with suitable examples.	5	CO2	L2
		OR			
4	a)	Prepare a complete SRS for Gasoline pump control system.	8	CO2	L4

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	b)	Discuss the significance of use cases in requirements engineering process. Design various use cases for University	7	CO2	L5
		Employee management system.			
	c)	Briefly explain Scenario-based modeling.	5	CO2	L2
	<u> </u>	Briefly explain section oused modeling.	1 5	1002	L L L
5	a)	What is meant by design classes? List and explain four	6	CO3	L2
	<b>b</b> )	characteristics of a well-formed design class.	6	CO3	L4
	b)	Suggest and justify the architectural style for the online Jewellery Mart system. Also identify major components used in designing online Jewellery Mart system.	0	003	L4
	0)	Describe basic design principles applicable to Component level	8	CO3	L3
	c)	design.	0	003	L3
		OR	<u> </u>	<u> </u>	
6	a)	Illustrate dimensions of the design model with a neat sketch.	8	CO3	L2
	b)	Design architectural context diagram for the following	4	CO3	L4
	0)	systems:	-		
		(i) Online Gaming System			
		(ii) Agricultural Products Management System			
	c)	Describe Component based development in detail.	8	CO3	L3
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7	a)	Distinguish between white-box and black-box testing.	6	CO4	L3
	b)	Describe any three system testing types with real time	6	CO4	L3
		examples.			
	c)	Explain Basis path testing in detail.	8	CO4	L2
		OR			
8	a)	Design various test cases for digital advertisement agency management system.	6	CO4	L4
	b)	Distinguish between Top-down Integration testing and Bottom-up Integration testing.	6	CO4	L3
•	c)	Explain graph based testing methods and boundary value	8	CO4	L3
		analysis with suitable real time examples.			
9	a)	Briefly explain an empirical estimation models for computer	6	CO5	L2
9	a)	software.			
	b)	Illustrate the roles of software teams and team leaders in	6	CO5	L3
	- ,	software project management.			
	c)	How to establish a software metrics program? Illustrate with	8	CO5	L3
		various steps and goals.			
				-	-
		OR			
10	a)	"Effective software project management focuses on four P's".	8	CO5	L4
10	a)	-	8	CO5	L4
10	a) b)	"Effective software project management focuses on four P's".	7	CO5	L4 L3

1. Answer FIVE FULL questions as per choice.

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