USN									

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

	b)	Discuss the significance of use cases in requirements engineering process. Design various use cases for University Employee management system.	7	CO2	L5
	c)	Briefly explain Scenario-based modeling.	5	CO2	L2
5	a)	What is meant by design classes? List and explain four characteristics of a well-formed design class.	6	CO3	L2
	b)	Suggest and justify the architectural style for the online Jewellery Mart system. Also identify major components used in designing online Jewellery Mart system.	6	CO3	L4
	c)	Describe basic design principles applicable to Component level design.	8	CO3	L3
		OR			
6	a)	Illustrate dimensions of the design model with a neat sketch.	8	CO3	L2
	b)	Design architectural context diagram for the following systems: (i) Online Gaming System (ii) Agricultural Products Management System	4	CO3	L4
	c)	Describe Component based development in detail.	8	CO3	L3
7	a)	Distinguish between white-box and black-box testing.	6	CO4	L3
	b)	Describe any three system testing types with real time examples.	6	CO4	L3
	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 analysis with suitable real time examples.	8	CO4	L3
9	a)	Briefly explain an empirical estimation models for computer software.	6	CO5	L2
	b)	Illustrate the roles of software teams and team leaders in software project management.	6	CO5	L3
	c)	How to establish a software metrics program? Illustrate with various steps and goals.	8	CO5	L3
		OR			
10	a)	"Effective software project management focuses on four P's". Justify this statement with suitable analogy.	8	CO5	L4
	b)	Illustrate the concept of integrating metrics within the software process using collection process.	7	CO5	L3
	c)	List and explain various project resources.	5	CO5	L2

1. Answer FIVE FULL questions as per choice.