Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA-SEMESTER – V EXAMINATION WINTER 2015

Subject Code: 650001 **Date: 01/12/2015**

Subject Name: Software Engineering (SE)

Time: 10:30 am – 01:00 pm

Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	What do you mean by Evolutionary Process Models? Compare the Spiral Model of Software Development with Prototyping Model.	**07**
	(b)	What is Extreme Programming (XP)? Explain the Extreme Programming process in detail.	**07**
Q.2	**(a)**	Differentiate between Control Specification (CSPEC) and Process Specification (PSPEC). Explain the Interaction model for WebApps.	**07**
	(b)	What is Navigation Modeling? Also explain the Content Model for WebApps.	**07**
		OR	
	(b)	Explain Data-centered and Call-return architectural style in detail with appropriate diagrams.	**07**
Q.3	**(a)**	Discuss Open Closed Principle & Liskov Substitution Principle of class based component-level design?	**07**
	(b)	Explain the concept of Aesthetic design and Navigation Design for WebApp design in detail.	**07**
		OR	
Q.3	**(a)**	Discuss the advantages of using Pattern-Based Software design. How Architectural patterns are different from Component level design patterns.	**07**
	(b)	What do you understand by WebApp Interface Design? Also discuss the principles & guidelines for Interface design.	**07**
Q.4	**(a)**	What is Integration Testing? Describe in detail top-down and bottom-up Integration Testing.	**07**
	(b)	What is the objective of Security Testing and how it is different from Performance Testing?	**07**
		OR	
Q.4	**(a)**	What is an Architectural design? Also explain its Archetypes in detail.	**07**
	(b)	What is Black-Box Testing? List out various testing techniques applied in Black-Box testing. Explain any one in detail	**07**
Q.5	**(a)**	Explain COCOMO II model with suitable example.	**07**
	(b)	Explain Function-Based Metrics for the requirement modeling in brief.	**07**
		OR	

Q.5	**(a)**	Explain Object Oriented Design Metrics for the design modeling in brief.	**07**
	(b)	Write short note on : a) Verification and Validation	**04**
		b) White-Box Testing	**03**

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