Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY
BE- VIth SEMESTER–EXAMINATION – MAY- 2012

Subject code: 160701 **Date: 09/05/2012**
Subject Name: Software Engineering
Time: 10:30 am – 01:00 pm **Total Marks: 70**
Instructions:
1. Attempt all questions.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.

Q.1	**(a)**	Explain incremental model for system development. Differentiate it with spiral model.	**07**
	(b)	What is W5HH principle? Explain in detail.	**07**
Q.2	**(a)**	Draw the Data Flow Diagram with different levels for withdraw and deposit of money in a bank.	**07**
	(b)	What is software prototyping? Explain its significance in software engineering with example.	**07**
		OR	
	(b)	Define Quality for software. List and explain SQA activities	**07**
Q.3	**(a)**	Prepare an E-R diagram for a simple Library Management System.	**07**
	(b)	Explain software testing strategy for conventional software architecture. Draw the spiral diagram showing testing strategies with phases of software development.	**07**
		OR	
Q.3	**(a)**	Prepare a state diagram for Microwave Oven showing all states of it.	**07**
	(b)	How unit testing strategy works on a software module? What errors are commonly found during unit testing?	**07**
Q.4	**(a)**	Define FOUR Ps for project management and explain them in detail.	**07**
	(b)	Explain the significance of User Interface (UI) in a system. Also explain the design model for UI.	**07**
		OR	
Q.4	**(a)**	List and explain requirement engineering tasks.	**07**
	(b)	What is Cyclomatic Complexity? Define steps to find cyclomatic complexity using flow graph.	**07**
Q.5	**(a)**	What is activity diagram and swim-lane diagram? Draw activity diagram for Billing Counter of a shopping mall.	**07**
	(b)	Draw and explain Process Framework.	**07**
		OR	
Q.5	**(a)**	How do we define software engineering? Draw and explain software engineering layers.	**07**
	(b)	What is Object Oriented Design of a system? Create a class diagram showing all possible relationships between classes of a system.	**07**

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