Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – VI • EXAMINATION – WINTER 2012

Subject code: 160701 **Date: 02/01/2013**

Subject Name: Software Engineering

Time: 02.30 pm - 05.00 pm **Total Marks: 70**

Instructions:

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

Q.1	(a)	What is Software Engineering ? What is the role of software engineer Compare Hardware and Software product characteristic.	07
	(b)	Explain Spiral Model and its advantages. Compare Prototype Model and Spiral Model.	07
Q.2	(a)	Explain Feasibility Study with the example of ATM Machine in Banking System. Draw use case diagram of ATM Machine.	07
	(b)	How to Collect requirement? Explain different methods to Collect requirement. What is its importance in Software Engineering?	07
		OR	
	(b)	List five requirement of Library management System. Draw DFD lavel-0 and DFD Level-1 for Library Management System.	07
Q.3	(a)	What is Software Measurement? How to Calculate Cost of Software? Explain Software metrics used for S/w cost estimation.	07
	(b)	Compare: Coupling and Cohesion. Explain Different types of Coupling and its effect on software modules.	07
		OR	
Q.3	(a)	What is the importance of User Interface? Explain User Interface Design Rules with examples.	07
	(b)	Explain Software Quality Assurance and its importance. Also Explain Different CMM Level.	07
Q.4	(a)	What is Software testing? What is the role of software tester? Compare: Black box testing and White Box testing	07
	(b)	What is Software Reliability? What is the role of software Maintenance in Software Product?	07
		OR	
Q.4	(a)	Explain : Unit testing , cyclomatic complexity and Load testing	07
	(b)	What is Risk Management? Explain RMMM plan.	07
Q.5	(a)	Explain Software Project Management and W5HH Principle.	07
	(b)	Explain Functional Requirement and Non Functional Requirement with example of Hospital Management System	07
		OR	
Q.5	(a)	What are CASE tools? Explain its importance in SE.	07
	(b)	Explain Functional Requirement and Non Functional Requirement with example of Mobile Device	07

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