Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2013

Subject code: 1720204 **Date: 03-06-2013**

Subject Name: Software Engineering Methodologies

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)**	Explain SDLC.	**07**
	(b)	Explain the different qualities of software.	**07**
Q.2	**(a)**	i) Explain CBSE in brief.	**03**
		ii) Explain inheritance with the help of generalization and specialization.	**04**
	(b)	Explain coupling and cohesion with its suitable types.	**07**
		OR	
	(b)	Explain top-down and bottom-up design.	**07**
Q.3	**(a)**	Draw and explain Petri-net for producer-consumer problem.	**07**
	(b)	Compare sequential software development approach with cyclic software development approach.	**07**
		OR	
Q.3	**(a)**	Explain various types of concurrent software.	**07**
	(b)	Compare verification and validation.	**07**
Q.4	**(a)**	Explain different types of architectural style.	**07**
	(b)	What is Test Case? Explain the process of test case generation.	**07**
		OR	
Q.4	**(a)**	Explain Product-line architecture.	**07**
	(b)	Explain tools used in software testing.	**07**
Q.5	**(a)**	Explain function point matrix.	**07**
	(b)	Suppose one e-commerce website has a problem in its money transaction module. If company wants some modification in their money transaction module. In this situation which software development model you suggest and why?	**07**
		OR	
Q.5	**(a)**	Explain COCOMO with its types.	**07**
	(b)	A hospital wants a robotic arm for heart surgery so here safety is a critical criterion. So in this situation which software development model you suggest and why?	**07**

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