<b>GUJARAT TECHNOLOGICAL UNIVERSITY</b> M. E SEMESTER – II • EXAMINATION – WINTER • 2014			
Subj	ect	code: 1720204 Date: 04-12	-2014
Subj	ect	Name: Software Engineering Methodologies	
Tim	e: 02	2:30 pm - 05:00 pm Total Marl	ks: 70
Inst	rucí	ions:	
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	What do you mean by the term õSoftware Engineeringö? Comment	07
	(b)	What models are created during the analysis phase of a software development process? What is the purpose of each?	07
Q.2	(a)	Explain software process. List the generic characteristics of the	07
	(b)	What are the different steps in software development life cycle? What are the end products at each step? OR	07
	(b)	Discuss Boehm Waterfall methodology.	07
Q.3	(a)	What is the relationship between a process model, process specification and process for a project?	07
	(b)	Discuss Booch methodology. OR	07
Q.3	(a)	Is it possible to have a system that can automatically verify completeness of an SRS document? Explain your answer.	07
	(b)	Discuss the need of software quality assurance. List the software quality assurance activities.	07
Q.4	(a)	What are the testing objectives and testing principles in software design?	07
	(b)	Discuss typical software risk. What techniques can be use to control each risk? It is possible to prioritize the risk, explain. OR	07
Q.4	(a)	Give different steps of promoting model? Also state for which type of applications this model is useful.	07
	(b)	Assume that a program will experience 200 failures in infinite time. It has now experienced 100. The initial failure intensity was 20 failures/CPU hr.	07
		<ul><li>(i) Determine the current failure intensity.</li><li>(ii) Find the decrement of failure intensity per failure.</li></ul>	
Q.5	(a)	Explain Equivalence Class Testing (ECT). Consider a program which computes the square root of an input integer between 0 and 5000. Determine the equivalence class test cases. Determine the test cases using boundary value analysis also	07
	(b)	Define coupling and cohesion. Discuss different types of coupling	07

(b) Define coupling and cohesion. Discuss different types of coupling 07 and cohesion.

- Q.5 (a) What is a web engineering team? How will you build the web 07 engineering team?
  - (b) Describe the steps associated with database testing for a WebApp. Is 07 database testing predominantly a client-side or server-side activity?

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