GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI • EXAMINATION – WINTER 2013

Subject Code: 160701   **Date: 27-11-2013**
Subject Name: Software Engineering
Time: 02:30 pm to 05:00 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)**	Answer following	
	(i)	Explain the difference between software and hardware characteristics.	**04**
	(ii)	List and explain very briefly various activities of software engineering process framework.	**03**
	(b)	Explain the process model which is normally suits for development of large-scale software system.	**07**
Q.2	**(a)**	Develop a complete Use Case System for ATM machine.	**07**
	(b)	Consider a project to develop a text editor. Major modules of project are: 1. Menu Panel (size 9KB) 2. Text editing window (size 4 KB) 3. Short cut keys handler (size 6 KB). Use COCOMO to determine the overall cost of the project and duration of development.	**07**
		OR	
	(b)	Explain function point analysis method. Compute the function points for the following data set: Inputs =8, Outputs= 12, Inquiries = 4, Logical files = 41, Interfaces =1 and $\sum$ Fi = 41.	**07**
Q.3	**(a)**	Using appropriate example, Explain control flow model.	**07**
	(b)	Define module coupling and cohesion. Explain different types of coupling and cohesion.	**07**
		OR	
Q.3	**(a)**	Explain functional modeling of a system. Draw data flow diagram for an ATM machine.	**07**
	(b)	What is the difference between software architecture and software design? Explain any two architectural styles of software.	**07**
Q.4	**(a)**	Write short note on : Risk Management	**07**
	(b)	Explain Version Management and code quality management under changing conditions.	**07**
		OR	
Q.4	**(a)**	Explain Importance of SQA.	**07**
Q.4	**(b)**	What is Black box testing? Explain any one technique to carry out black box testing.	**07**
Q.5	**(a)**	What are different levels of testing and the goals of each level?	**07**
	(b)	Write short note on : Software Prototyping.	**07**
		OR	
Q.5	**(a)**	Write short note on: Integrated CASE Environment.	**07**
	(b)	Write short note on: Software Project Management.	**07**

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