GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER–V • EXAMINATION – WINTER 2013

Subject Code: 650001   **Date: 26-11-2013**
Subject Name: Software Engineering
Time: 02.30 pm - 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)**	List three golden rules of user interface design. Explain each golden rule in detail.	**07**
	(b)	Explain waterfall and spiral process model. List the differences between them.	**07**
Q.2	**(a)**	Fill in the blanks	**07**

    1. _____ refers to the set of tasks that ensures that software correctly implements a specific function.

    2. _____ is an indication of the relative functional strength of a module.

    3. _____ diagram in UML indicates how events cause transitions from object to object.

    4. _____ is a design concept that suggests that any complex problem can be easily handled if it is subdivided into pieces that can each be solved and optimized independently.

    5. _____ testing techniques enables to derive sets of input conditions that will fully exercise all functional requirements for a program.

    6. _____ is a software metric that provides a quantitative measure of the logical complexity of a program.

    7. _____ testing executes a system in a manner that demands resources in abnormal quantity, frequency or volume.

	(b)	Explain User Interface of a WebApp design principles and guidelines.	**07**

OR

	(b)	Explain WebApp testing process and content testing.	**07**
Q.3	**(a)**	What is refactoring? Briefly describe four elements of the design model.	**07**
	(b)	What is a component? Explain three views of the component.	**07**

OR

Q.3	**(a)**	Define Archetype? Briefly describe different architectural styles.	**07**
	(b)	What is coupling? Explain different coupling categories/ List out basic design principles of class based components.	**07**
Q.4	**(a)**	Explain core principles that guide software process and practice of Software Engineering. Which do you believe is most important?	**07**
	(b)	Explain seven Requirement Engineering tasks in detail.	**07**

OR

Q.4	**(a)**	Explain in detail, different steps to perform when creating a behavioral model.	**07**
Q.4	**(b)**	Explain different elements of Requirements model.	**07**
Q.5	**(a)**	Define metrics and measures. Explain design metrics for WebApp.	**07**
	(b)	What is error density? Explain different types of system testing.	**07**

OR

Q.5	**(a)**	What is software project scheduling? Explain following model.
		    1.COCOMO II
		    2. Software equation model.
			07

	(b)	Define testability. Explain control structure testing in detail.	**07**

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