Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA – SEMESTER II - EXAMINATION –WINTER-2022

Subject Code: 629406   **Date: 16/12/2022**
Subject Name: Software Testing
Time: 10:30 AM TO 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)**	Answer the following questions.	**07**
		1. Define Test Case.	
		2. Distinguish between Validation and Verification.	
		3. What is corrective and preventive action?	
		4. What is software metrics?	
		5. What are the major software risk items?	
		6. What is error, fault, bug, failure?	
		7. List out the Software testing objectives.	
	(b)	What is Software quality assurance? Discuss the software quality challenges.	**07**
Q.2	**(a)**	Describe the components of the software quality assurance system.	**07**
	(b)	Explain in detail the Pre-Project Software Quality.	**07**
		OR	
	(b)	Discuss the Contract review, Development and quality plans.	**07**
Q.3	**(a)**	Discuss the differences between the various testing strategies, their advantages and disadvantages.	**07**
	(b)	Explain the implementation of alpha site and beta site test and discuss their advantages and disadvantages.	**07**
		OR	
Q.3	**(a)**	Describe the concept of black box testing and white box testing, and discuss their advantages and disadvantages.	**07**
	(b)	Explain structure of McCall`s classic factor model.	**07**
Q.4	**(a)**	What is software testing? Explain automation testing and List the main type of automated software test and discuss it.	**07**
	(b)	Describe the foundations of high quality maintenance.	**07**
		OR	
Q.4	**(a)**	Explain the contribution of CASE tools to the quality of software maintenance.	**07**
	(b)	Describe the process of defining a new software quality metric.	**07**
Q.5	**(a)**	Describe the various software development models in details.	**07**
	(b)	Explain the difference between procedures and work instructions.	**07**
		OR	
Q.5	**(a)**	Explain Corrective and preventive action process.	**07**
	(b)	Discuss the main objectives of training and certification.	**07**

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