Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA INTEGRATED– SEMESTER - VI EXAMINATION –WINTER-2021

Subject Code: 2668602 **Date: 30/11/2021**

Subject Name: Software Testing

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)	1. Define software, software quality and software quality assurance.	**03**
	2. Explain the objectives of software quality assurance activities.	**02**
	3. Explain the relationship between software quality assurance and software Engineering.	**02**
(b)	1. Distinguish between software errors, software faults and software failures.	**03**
	2. Write The corrective and preventive actions process.	**04**
Q.2(a)	Explain the structure (categories and factors) of McCall's classic factor model.	**07**
(b)	Explain SQA Architecture.	**07**
	OR	
(b)	Define Test Metric. What is the difference between Product Metrics and Process Metrics? Discuss various aspects of efficiency in software metrics.	**07**
Q.3(a)	Explain testing during software development life cycle.	**07**
(b)	1. List Contract review objectives.	**03**
	2. Write the Documentation control procedures.	**04**
	OR	
(a)	Explain Managerial SQA components.	**07**
(b)	Explain Elements of a software quality plan.	**07**
Q.4(a)	Explain prototyping model in detail.	**07**
(b)	Specify roles and responsibilities of QA Engineer, Tester, Test-lead/manager and scrum master of software testing department.	**07**
	OR	
(a)	Comparing the SDLC and spiral model.	**07**
(b)	List different Black-Box testing. Write about Equivalence Class Testing with examples.	**07**
Q.5(a)	Explain Software testing strategies.	**07**
(b)	Advantages and disadvantages of automated tests.	**07**
	OR	
(a)	Explain Alpha and beta site testing with advantage and disadvantages.	**07**
(b)	1. Write the difference between procedures and work instructions.	**03**
	2. Explain the main objectives of training and certification.	**04**

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