Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA– SEMESTER II- EXAMINATION –WINTER-2023

Subject Code:629406   **Date: 27/12/2023**
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.
    4. Use of simple calculators and non-programmable scientific calculators are permitted.

Q.1 **(a)** Define the following terms: Software Error, Software Fault & Software Failures. **07**
Q.1 **(b)** Explain in detail tasks performed by SQA development & Maintenance unit. **07**

Q.2 **(a)** Explain Infrastructure components for error prevention and improvement. **07**
Q.2 **(b)** Write a detail note on the objectives of Contract review process. **07**

OR

Q.2 **(b)** Discuss the benefits of preparing Development plans and Quality plans for small projects. **07**

Q.3 **(a)** Explain the Prototyping model in detail. **07**
Q.3 **(b)** Write a detail note on Peer Reviews process. **07**

OR

Q.3 **(a)** Explain the Spiral model in detail. **07**
Q.3 **(b)** Differentiate: Bottom-up V/s. Top-down testing. **07**

Q.4 **(a)** What is alpha site and beta site testing? Discuss their advantages and disadvantages. **07**
Q.4 **(b)** List the infrastructure tools that support maintenance quality assurance. **07**

OR

Q.4 **(a)** List the types of external participants and explain the benefits they provide to the contractor. **07**
Q.4 **(b)** Explain the difference between classic and real CASE tools and provide some examples. **07**

Q.5 **(a)** Explain the objectives of follow-up of trained and certified staff performance and main sources of the follow-up data. **07**
Q.5 **(b)** Explain the objectives of software quality metrics. List the requirements for successful software quality metrics. **07**

OR

Q.5 **(a)** Discuss the issues covered by documentation control procedures. **07**
Q.5 **(b)** Compare the classic software quality costs model with the extended model. **07**

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