

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA– SEMESTER II- EXAMINATION –SUMMER-2024**

**Subject Code: 629406**

**Date: 11/06/2024**

**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) Answer the following question. 07**
1. Define the term Software.
  2. What is Test Case?
  3. Define Glass Box Testing
  4. What is Software Metrics?
  5. Identify two major Risk Items.
  6. What is Software Failure?
  7. What is Automation Testing?
- (b) Explain classification of the causes of software errors. 07**
- Q.2 (a) Write a note on SQA components. 07**
- (b) Write a detail note on difference between software quality assurance vs software quality control. 07**
- OR**
- (b) Explain elements of the development plan & quality plan. 07**
- Q.3 (a) Explain the two contract review stages and identify the difficulties in performing a major contract review. 07**
- (b) Explain structure of McCall`s classic factor model. 07**
- OR**
- Q.3 (a) Write a note on Spiral model in detail. 07**
- (b) Discuss between bottoms-up and top-down testing strategies in details. 07**
- Q.4 (a) Describe the concept of black box testing and white box testing, and discuss their advantages and disadvantages. 07**
- (b) Explain the implementation of alpha site and beta site test along with its advantages and disadvantages. 07**
- OR**
- Q.4 (a) Write a detail note on tasks performed by SQA development & Maintenance unit. 07**
- (b) What is automation testing? List the main type of automated software test and discuss it. 07**
- Q.5 (a) Explain the contribution of CASE tools for the quality of software maintenance. 07**
- (b) Explain the difference between procedure and work instruction 07**
- OR**
- Q.5 (a) Write a note on objectives of training and certification. 07**
- (b) Explain direct and indirect objectives of the review methodologies. 07**

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