

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA INTEGRATED– SEMESTER VII- EXAMINATION –SUMMER-2024**

**Subject Code: 4470631**

**Date: 18/05/2024**

**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.**
- 4. Use of simple calculators and non-programmable scientific calculators are permitted.**

**Q.1 (a) Explain the software testing process. 07**

**(b) What is Testing? explain STLC phase in detail. 07**

**Q.2 (a) Give the difference between Verification and Validation. 07**

**(b) Explain Blackbox testing and its techniques. 07**

**OR**

**(b) Explain Whitebox testing and its techniques. 07**

**Q.3 (a) Explain Object-oriented model in detail. 07**

**(b) Explain Unit testing, Integration Testing and System Testing with example. 07**

**OR**

**Q.3 (a) Differentiate Functional testing and Non-Functional testing 07**

**(b) Explain technique of testing: special tests 07**

1. Security testing

2. Performance testing

3. Installation testing

4. Regression testing

5. Smoke testing

6. Sanity testing

7. Ad hoc testing.

**Q.4 (a) Justify the need for documentation control in an SQA framework. 07**

**(b) Define Test planning? Explain factors of test planning. 07**

**OR**

**Q.4 (a) Explain Waterfall model as per software testing development model. 07**

**(b) List out Test Reports and explain one by one in detail. 07**

**Q.5 (a) What is Metrics? Differentiate Product and Process metric. 07**

**(b) Create any five Test Cases for Online Shopping System. 07**

**OR**

**Q.5 (a) Differentiate between manual and automation testing. When should one use automation testing? 07**

**(b) Explain Roles and Responsibilities in Software Quality profession. 07**

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