

Enrolment No. /Seat No.: \_\_\_\_\_

# GUJARAT TECHNOLOGICAL UNIVERSITY

MCA – SEMESTER V- EXAMINATION –SUMMER-2025

**Subject Code: 4659303**

**Date: 03/06/2025**

**Subject Name: Software Engineering**

**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)** What is Software Engineering? Justify that Software engineering is a layered technology. **07**

**(b)** Explain waterfall process model advantages and disadvantages. **07**

**Q.2 (a)** Explain the rules for agile process model **07**

**(b)** Explain Various requirement engineering tasks. **07**

**OR**

**(b)** Draw the Use Case diagram for Hospital Management System. **07**

**Q.3 (a)** Explain “Three Golden Rules” for user interface design. **07**

**(b)** List Architectural designs and explain its types in details. **07**

**OR**

**Q.3 (a)** List and explain different DFD symbols with appropriate example. **07**

**(b)** Discuss following design issues. **07**

1. Inconsistent Design.

2. Error handling.

**Q.4 (a)** Write the difference between Blackbox Testing & Whitebox Testing. **07**

**(b)** Explain “Strategic Approach” in Software Testing. **07**

**OR**

**Q.4 (a)** Explain Agile Framework: SCRUM with suitable diagram. **07**

**(b)** Prepare Agile document for online ticket booking system. **07**

**Q.5 (a)** Draw Sequence diagram for Tour Management System. **07**

**(b)** Explain Class diagram with example in UML. **07**

**OR**

**Q.5 (a)** Draw State diagram for Library management System. **07**

**(b)** Explain all the symbols used in Use case diagram with example. **07**

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