

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VI EXAMINATION – WINTER 2025

Subject Code:3161605

Date:02-12-2025

Subject Name:Software Engineering

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. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Define Software. List out Software characteristics.	03
	(b) What is Agility? Enlist any four Agility Principles.	04
	(c) Explain the process model which normally suits for the development of large-scale software system.	07
Q.2	(a) What is a spike solution in XP?	03
	(b) What are the tasks performed in requirement engineering?	04
	(c) What is Risk Management? Explain RMMM plan.	07
	OR	
	(c) Discuss Software Project Management and W5HH Principle in brief.	07
Q.3	(a) Differentiate Procedural Design and Object Oriented Design.	03
	(b) Compare Coupling and Cohesion. Explain different types of Coupling and its effects on software modules.	04
	(c) What is testing? Explain the different levels of testing.	07
	OR	
Q.3	(a) Describe golden rules of User Interface Design.	03
	(b) How are the concepts of coupling and software portability related? Provide examples to support your discussion.	04
	(c) Explain System Testing	07
Q.4	(a) Explain the difference between an <i>error</i> and a <i>defect</i> .	03
	(b) Explain Six Sigma strategy for quality assurance.	04
	(c) Write short notes on Reverse Engineering and Forward Engineering.	07
	OR	
Q.4	(a) Give subtle difference between software reliability and software safety.	03
	(b) Describe about SQA Plan.	04
	(c) Explain SCM process in details.	07
Q.5	(a) Enlist the CASE building blocks.	03
	(b) What is Cyclomatic complexity? Define Steps to find Cyclomatic complexity using flow graph.	04

- (c) Explain 7-C's of DevOps Lifecycle. **07**
- OR**
- Q.5** (a) What is software process improvement? **03**
- (b) List out any eight Test Strategies for WebApps. **04**
- (c) Explain DevOps Principles. **07**
