

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI EXAMINATION – SUMMER 2025****Subject Code: 3161605****Date: 20-05-2025****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. Simple and non-programmable scientific calculators are allowed.

		Marks
Q.1	(a) Identify the definite stages through which a software product undergoes during its lifetime.	03
	(b) Discuss merits and demerits of spiral model.	04
	(c) Explain prototype model in detail.	07
Q.2	(a) What is Agility?	03
	(b) Discuss the differences among Reactive and Proactive Risks.	04
	(c) Explain Extreme Programming (XP) in detail.	07
	OR	
	(c) Explain Adaptive software development(ASD) detail.	07
Q.3	(a) What is requirement engineering? Why requirements must be stable and correct?	03
	(b) Briefly Explain: Requirement Elicitation.	04
	(c) Compute the function points for the following data set: Inputs = 8, Outputs = 12, Inquiries = 4, Logical files = 41, Interfaces = 1 and $\sum F_i = 41$. Assume that all the complexity adjustment values are average.	07
	OR	
Q.3	(a) Define Process, Product and Project Metrics.	03
	(b) What is Risk Management? Explain RMMM plan	04
	(c) Describe difference between Risk components and Risk drivers.	07
Q.4	(a) Compare Coupling and Cohesion.	03
	(b) Draw the Use case diagram for the Online shopping website.	04
	(c) Explain coding standard in detail.	07
	OR	
Q.4	(a) List the characteristics of a good quality SRS.	03
	(b) Draw Activity diagram for Billing Counter of a Shopping Mall.	04
	(c) Explain Web design Pyramid.	07
Q.5	(a) Explain the importance of Software Quality Assurance.	03
	(b) Explain Black Box Testing.	04
	(c) Explain DevOps Lifecycle in detail.	07
	OR	
Q.5	(a) What is Cyclomatic Complexity?	03
	(b) Explain Reverse Engineering.	04
	(c) Explain Formal Technical Reviews.	07
