

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER- V EXAMINATION – SUMMER 2026

Subject Code:3150711

Date:25-05-2026

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 following	03
1. Software & Software Engineering	
2. Framework activity	
3. Umbrella activity	
(b) List and explain myths that prevails in the context of software development.	04
(c) Explain “Iterative” software process model with its merits and demerits.	07
Q.2 (a) Explain “Layered Technology” for the Software Engineering.	03
(b) List out the typical activities carried out by software project manager.	04
(c) Explain following in brief.	07
1. Project Size Estimation	
2. Project Scheduling	
OR	
(c) Define agile software development methodology. Explain SCRUM process model.	07
Q.3 (a) What is SRS in the context of Software Engineering? List characteristics of good SRS document.	03
(b) Explain agile software development model “Extreme Programming” in brief.	04
(c) Explain how cost estimation is done through Function Point metric?	07
OR	
Q.3 (a) What is “Software Risk” in the domain of Software Engineering. Explain types of it in brief.	03
(b) Explain “Object Oriented Design” concept in brief.	04
(c) How intermediate and complete COCOMO Model can achieve better estimation over basic COCOMO model?	07
Q.4 (a) What do you mean by Software Testing? Explain Alpha vs Beta Testing.	03
(b) Compare “White Box” and “Black Box” software testing approach.	04
(c) Define following in brief.	07
1. Software Reliability	
2. Software Quality Assurance	
3. Software Configuration Management	
OR	
Q.4 (a) Write short note on Six Sigma Standard.	03

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| | (b) | What is Formal Technical Review? Enlist objectives of it. | 04 |
| | (c) | What is Coupling? What is Cohesion? Explain different types of Cohesion and Coupling with suitable example. | 07 |
| Q.5 | (a) | List key points that you will keep in mind while designing User Interface for the Software. | 03 |
| | (b) | What is DevOps? Explain advantage of DevOps methodology. | 04 |
| | (c) | Explain 7C's of DevOps lifecycle. | 07 |
| | | OR | |
| Q.5 | (a) | Explain following with suitable example - Fault, Failure and Error. | 03 |
| | (b) | List out software quality standards. Explain any one in brief. | 04 |
| | (c) | Explain following concepts in brief: | 07 |
| | | 1. Re-Engineering | |
| | | 2. Reverse Engineering | |
