

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2023****Subject Code:3150711****Date:07-12-2023****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.

		<b>MARKS</b>
<b>Q.1</b>	(a) Define terms: Software Engineering, Process and Product.	<b>03</b>
	(b) Explain Software Engineering: A Layered Technology.	<b>04</b>
	(c) Explain one of the evolutionary software process model with its pros and cons.	<b>07</b>
<b>Q.2</b>	(a) Which are the key assumptions that characterized any agile software process?	<b>03</b>
	(b) Explain the merits and demerits of SCRUM.	<b>04</b>
	(c) List and Explain various Software Development Myths and its reality.	<b>07</b>
<b>OR</b>		
	(c) List the various steps incorporated within the component-based development model	<b>07</b>
<b>Q.3</b>	(a) Develop a complete use case for “Making a withdrawal at an ATM”.	<b>03</b>
	(b) List and Explain different categories of Software Risks.	<b>04</b>
	(c) Explain the four Ps of software project management.	<b>07</b>
<b>OR</b>		
<b>Q.3</b>	(a) What is Quality function deployment (QFD)?	<b>03</b>
	(b) Describe the difference between process and project metrics in your own words.	<b>04</b>
	(c) Explain The W5HH Principle.	<b>07</b>
<b>Q.4</b>	(a) Explain the difference between an error and a defect.	<b>03</b>
	(b) Differentiate Verification and Validation.	<b>04</b>
	(c) Draw and explain the diagram of Translating the Requirements Model into the Design Model.	<b>07</b>
<b>OR</b>		
<b>Q.4</b>	(a) How Cyclomatic Complexity is useful in White Box testing.	<b>03</b>
	(b) List all of the review guidelines and brief which do you think is most important and why?	<b>04</b>
	(c) What is Software Architecture and why it is important?	<b>07</b>
<b>Q.5</b>	(a) What is DevOps? Provide Importance and Benefits for the same.	<b>03</b>
	(b) What is Smoke Testing? Explain activities it encompasses.	<b>04</b>
	(c) Explain a Software Reengineering Process Model using the diagram.	<b>07</b>
<b>OR</b>		
<b>Q.5</b>	(a) List 7 C’s of DevOps Lifecycle for Business Agility.	<b>03</b>
	(b) What should be testing approaches for Mobile Applications?	<b>04</b>
	(c) List and Explain SQA Tasks.	<b>07</b>

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