

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VII EXAMINATION – WINTER 2025

Subject Code:3171610

Date:20-11-2025

Subject Name:Agile Development and UI/UX design

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) What are the main practices of Agile development?	03
	(b) Discuss the key components of Extreme Programming (XP).	04
	(c) What is Agile Alliance? Explain each of the manifesto statements with suitable examples.	07
Q.2	(a) How does Agile testing differ from traditional testing approaches?	03
	(b) Explain the Agile lifecycle process and its impact on UX design.	04
	(c) Explain SRP: Single-responsibility Principle with suitable example.	07
	OR	
	(c) Compare and contrast the Liskov Substitution Principle (LSP) and the Dependency-Inversion Principle (DIP) in Agile design.	07
Q.3	(a) Your team is working on a sprint and a new feature request comes in that wasn't planned. How should your team handle the new feature request within the current sprint?	03
	(b) Discuss the factors that influence Rigor in project development.	04
	(c) Describe the structure and purpose of the Agile Funnel model.	07
	OR	
Q.3	(a) What is the difference between "coupling" and "cohesion" in software design?	03
	(b) Differentiate between extreme programming and scrum.	04
	(c) Explain Agile Testing methods.	07
Q.4	(a) Explain the Open-Closed Principle (OCP) in Agile Design	03
	(b) Describe the concept of the Interface Segregation Principle (ISP) in Agile Design.	04
	(c) Discuss the following concepts with respect to Generative design: (i) ideation (ii) critiquing	07
	OR	
Q.4	(a) Define physical mockup. How does it help in design?	03
	(b) Explain Empirical UX evaluation methods in brief.	04
	(c) Explain Why a UX Design team should have people with diverse skill and backgrounds. Briefly discuss a real-world example where such a team can have a positive impact on the design of a product.	07

- Q.5** (a) Define acceptance testing. **03**
(b) Explain Prototype candidate design. **04**
(c) Differentiate between Bottom-up versus Top-down Design. **07**
- OR**
- Q.5** (a) Write a short on crucial Agile Matrices. **03**
(b) How do Agile UX and Agile Software Engineering work together? **04**
(c) Explain how data collection methods are used in UX evaluation to improve user experience in Agile projects. **07**
