

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2024

Subject Code:3171610

Date:22-05-2024

Subject Name:Agile Development and UI/UX design

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) Explain, Agile development emphasizes on Individuals and interactions over processes and tools.	03
	(b) How does eXtreme Programming (XP) differ from traditional software development methodologies?	04
	(c) i. How does Agile development emphasize continuous testing throughout the development cycle? ii. Justify, Refactoring helps to improve code quality and maintainability.	07
Q.2	(a) What are the potential problems associated with large, "fat" interfaces that violate ISP (Interface-Segregation Principle)?	03
	(b) List some key benefits of applying the Dependency Inversion Principle in software design.	04
	(c) Define SRP (Single-Responsibility Principle)? Can you give an example of how SRP helps maintain clean and manageable code in an Agile Design context?	07
	OR	
	(c) Explain LSP (Liskov Substitution Principle)? How does LSP ensure code components designed for specific functionalities are truly interchangeable in Agile development?	07
Q.3	(a) Define User Experience?	03
	(b) Explain the difference between UX and UI design.	04
	(c) How can Agile Design principles help reduce coupling between software components and promote loose dependencies?	07
	OR	
Q.3	(a) Abstraction is considered to be a key skill in computer science (CS). How is it important for a UX Designer?	03
	(b) Discuss about Click-through wireframe prototypes with the help of example?	04
	(c) Explain the basic UX design lifecycle process?	07
Q.4	(a) List advantages of Prototyping?	03
	(b) What do "Scope" and "Rigor" refer to in a project context? Briefly explore the factors affecting Rigor in Agile project development.	04

	(c) Explain how the Funnel Model of Agile UX differs from traditional Agile processes. What are its benefits and limitations?	07
	OR	
Q.4	(a) Define wireframes?	03
	(b) Explain User Personas with the help of examples?	04
	(c) Analyze the role of user stories in Agile development. How can user stories effectively bridge the gap between UX requirements and software engineering tasks?	07
Q.5	(a) Define empirical UX evaluation and its significance in the design process.	03
	(b) Describe “T” Prototypes? How are they better than a horizontal prototype?	04
	(c) Analyze the advantages and limitations of different data collection methods used in analytic UX evaluation?	07
	OR	
Q.5	(a) What do you mean by Automatic UX Evaluation?	03
	(b) Explain Rapid Iterative Test and Evaluation (RITE)?	04
	(c) Differentiate between Formal Summative UX Evaluation and Informal Summative UX Evaluation?	07
