Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI (NEW) EXAMINATION – SUMMER 2022

Subject Code:3161605   **Date:01/06/2022**

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)	What is meant by Software and Software Engineering?	03
	(b)	Discuss merits and demerits of Waterfall model.	04
	(c)	What is the importance of Process Model in development of Software System? Discuss Spiral Model in detail.	07
Q.2	(a)	Define agile process .Give any two agile principles.	03
	(b)	Describe FOUR Ps for Project Management.	04
	(c)	Explain Scrum with its advantages and disadvantages.	07
		OR	
	(c)	Explain Extreme Programming (XP) in detail.	07
Q.3	(a)	What are the characteristics of good SRS document?	03
	(b)	How the activity diagrams are useful in eliciting the requirements of software system?	04
	(c)	Compute function point value for a project with the following domain characteristics: No. of I/P = 30, No. of O/P = 62 , No. of user Inquiries = 24 No. of files = 8 , No. of external interfaces = 2 . Assume that all the complexity adjustment values are average.	07
		OR	
Q.3	(a)	Discuss the use of Data dictionaries in analysis modelling.	03
	(b)	What are the tasks performed in requirement engineering?	04
	(c)	Discuss about COCOMO model for software estimation.	07
Q.4	(a)	Describe golden rules of User Interface Design.	03
	(b)	What is the importance of software design? List out various design principles of good software design.	04
	(c)	What is testing? Explain the different levels of testing.	07
		OR	
Q.4	(a)	What is DevOps?	03
	(b)	What is architectural design? Enlist different style and patterns of architecture.	04
	(c)	Discuss the concepts of Cohesion and Coupling in detail.	07
Q.5	(a)	Explain Formal Technical Review.	03
	(b)	Compare white box and black box testing.	04
	(c)	Discuss five-level of SEI-CMM	07
		OR	
Q.5	(a)	What is software quality?	03
	(b)	What is software maintenance? Describe different types of maintenance.	04
	(c)	Briefly explain software configuration management	07

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