Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–VI(OLD) – EXAMINATION – SUMMER 2019

Subject Code:160701   **Date:27/05/2019**
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.**

Q.1	**(a)**	What is software prototyping? Explain its significance in software engineering with example.	**07**
	(b)	Explain the difference between DFD and ER diagram with symbols and example.	**07**
Q.2	**(a)**	Draw the Data Flow Diagram with different levels for withdraw and deposit of money in a bank.	**07**
	(b)	Explain the significance of User Interface (UI) in a system. Also explain the design model for UI.	**07**
		OR	
	(b)	What is Cyclomatic Complexity? Explain with example how to find cyclomatic complexity using flow graph.	**07**
Q.3	**(a)**	Explain the role of data dictionary in analysis and design.	**07**
	(b)	Explain white box and black box testing. Discuss all the testing strategies that are available.	**07**
		OR	
Q.3	**(a)**	Write and explain possible reasons for project failure.	**07**
	(b)	Explain five levels of SEI-CMM.	**07**
Q.4	**(a)**	How unit testing strategy works on a software module? What errors are commonly found during unit testing?	**07**
	(b)	Explain requirement engineering process.	**07**
		OR	
Q.4	**(a)**	Define module coupling and cohesion. Explain different types of coupling and cohesion.	**07**
	(b)	Define FOUR Ps for project management and explain them in detail.	**07**
Q.5	**(a)**	Write a short note on Reverse Engineering.	**07**
	(b)	Explain Risk Management, Monitoring and Mitigation.	**07**
		OR	
Q.5	**(a)**	Explain with example how the overall cost of the project and duration of development can be decided using COCOMO.	**07**
	(b)	Define Software Quality Assurance (SQA) and explain SQA activities.	**07**

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