

**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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