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:

0.5

(a)

- 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 07 example. (b) Explain the difference between DFD and ER diagram with symbols and 07 example. **Q.2** Draw the Data Flow Diagram with different levels for withdraw and deposit of 07 money in a bank. **(b)** Explain the significance of User Interface (UI) in a system. Also explain the design 07 model for UI. OR What is Cyclomatic Complexity? Explain with example how to find cyclomatic **07 (b)** complexity using flow graph. Explain the role of data dictionary in analysis and design. 0.3 07 (a) Explain white box and black box testing. Discuss all the testing strategies that 07 are available. Write and explain possible reasons for project failure. **07** 0.3 (a) Explain five levels of SEI-CMM. 07 **(b)** How unit testing strategy works on a software module? What errors are commonly **07 Q.4** (a) found during unit testing? Explain requirement engineering process. **(b) 07** Define module coupling and cohesion. Explain different types of coupling and 07 0.4 (a) cohesion. Define FOUR Ps for project management and explain them in detail. **07 (b) Q.5** (a) Write a short note on Reverse Engineering. 07 Explain Risk Management, Monitoring and Mitigation. 07 **(b)**

Define Software Quality Assurance (SQA) and explain SQA activities.

development can be decided using COCOMO.

Explain with example how the overall cost of the project and duration of

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