

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2021

Subject Code:2160701**Date:03/08/2021****Subject Name:Software Engineering****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.

- Q.1** (a) Draw The SaaS Architecture. **03**
 (b) Explain SEI-Capability Maturity Model. **04**
 (c) Explain the process model which is used in situations where the user requirements are not well understood. **07**
- Q.2** (a) Describe coding standards. **03**
 (b) Briefly Explain: Requirement Elicitation. **04**
 (c) Define module coupling and cohesion. Explain its different types. **07**
- OR**
- (c) Explain design rule of user interface (UI) with example. **07**
- Q.3** (a) Explain RMMM plan. **03**
 (b) Explain Software Engineering as a Layered Technology. **04**
 (c) What is Cyclomatic Complexity? Define steps to find cyclomatic complexity using flow graph. **07**
- OR**
- Q.3** (a) Explain WBS in detail. **03**
 (b) Discuss a software process framework. **04**
 (c) Explain Black box testing and White box testing. Discuss all the testing strategies that are available. **07**
- Q.4** (a) Explain Reliability Metrics of Software Products. **03**
 (b) Consider a project to develop a text editor. Major modules of project are: 1.Menu Panel (size 6KB) 2. Text editing window (size 4 KB) 3. Short cut keys handler (size 2 KB). Use COCOMO to determine the overall cost of the project and duration of development. **04**
 (c) Write short note on: Reverse Engineering and Re-engineering. **07**
- OR**
- Q.4** (a) What is ISO 9000 Certification? How to get it? **03**
 (b) Explain function point analysis method. Compute the function points for the following data set: Inputs =8, Outputs= 12, Inquiries = 4, Logical files = 41, Interfaces =1 and $\sum F_i = 41$. **04**
 (c) Explain version control and change control. **07**
- Q.5** (a) Draw the extreme programming process. **03**
 (b) Draw the Data Flow Diagram with different levels for withdraw and deposit of money in a bank. **04**
 (c) Draw integrated CASE Environment and What are the benefits of CASE? **07**

OR

- Q.5**
- (a) Draw the Scrum Process flow. **03**
 - (b) Prepare an E-R diagram for a simple Library Management System. **04**
 - (c) Explain Software Process Improvement. Explain various elements of SPI framework and maturity model. **07**
