

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VI EXAMINATION – WINTER 2025

Subject Code:2160701

Date:02-12-2025

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.
4. Simple and non-programmable scientific calculators are allowed.

- Q.1** (a) Discuss the concept of agility. 03
(b) Explain Software Engineering as a Layered Technology. 04
(c) Explain incremental model for system development. 07
- Q.2** (a) Explain the difference between software and hardware characteristics. 03
(b) Explain Functional Requirement and Non Functional Requirement for College Management System. 04
(c) Explain Scrum agile process model with suitable sketch. 07
- OR**
- (c) Explain project scheduling and tracking. 07
- Q.3** (a) Define the following terms. 03
1) Cohesion 2) Modularity 3) Abstraction
(b) Explain the process of risk identification. 04
(c) Write the SRS for the system that is known to you. 07
- OR**
- Q.3** (a) Compare: Quality Control Vs. Quality Assurance 03
(b) Draw the Use Case Diagram for Library Management System. 04
(c) What is the importance of User Interface? Explain User Interface Design Rules. 07
- Q.4** (a) Define the following terms. 03
1)Software Reliability 2) Software Availability 3) Software Review
(b) Explain different types of coupling. 04
(c) How unit testing strategy works on a software module? What errors are commonly found during unit testing? 07
- OR**
- Q.4** (a) Write the characteristics of a good software design. 03
(b) Explain Regression Testing. 04
(c) Explain the types of software maintenance. 07
- Q.5** (a) Write the various continuous improvement tasks for the product. 03
(b) What are CASE tools? Explain its importance in SE. 04
(c) Explain the SCM process. 07
- OR**
- Q.5** (a) Explain Client Server Software Engineering. 03
(b) Compare: Black box testing and White Box testing. 04
(c) Explain Software Process Improvement with various elements of SPI framework. 07
