

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI (OLD) - EXAMINATION – SUMMER 2017

Subject Code: 160701

Date: 10/05/2017

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) Answer the following questions. **07**
(i) What is a Prototype? **(1)**
(ii) Which is the most important phase of SDLC? **(1)**
(iii) Highest level DFD is referred as _____. **(1)**
(iv) The database design activity deals with the design of _____ & _____. **(2)**
(v) CASE tools are used for _____. **(1)**
(vi) What is the goal of the requirements analysis and specifications phase of software development life cycle? **(1)**
(b) Write and explain briefly possible reasons for project failure. **07**
- Q.2** (a) Explain spiral model and describe its advantages over waterfall model. **07**
(b) Describe requirements validation. **07**
- OR**
- (b) Explain requirement engineering process. **07**
- Q.3** (a) Discuss all generic frame work activities of software engineering with respect to any one process model. **07**
(b) Draw E-R diagram for university result system. **07**
- OR**
- Q.3** (a) Explain user interface design concepts with suitable example. **07**
(b) Define module coupling and cohesion. Explain different types of coupling and cohesion. **07**
- Q.4** (a) Explain Software Project Management and W⁵HH Principle. **07**
(b) Explain CASE and building blocks of CASE. **07**
- OR**
- Q.4** (a) What is Software Quality Assurance? Explain various factors that affect Software Quality. **07**
(b) What are the steps in Software Project Planning? What is effort estimation? **07**
- Q.5** (a) What is Cyclomatic Complexity? Define steps to find cyclomatic complexity using flow graph. **07**
(b) What is activity diagram and swim-lane diagram? Draw activity diagram for Billing Counter of a shopping mall. **07**
- OR**
- Q.5** (a) Explain Risk Management, Monitoring and Mitigation. **07**
(b) What is Object Oriented Design of a system? Create a class diagram showing all possible relationships between classes of a system. **07**
