

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA-SEMESTER – V EXAMINATION WINTER 2015

Subject Code: 650001

Date: 01/12/2015

Subject Name: Software Engineering (SE)

Time: 10:30 am – 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 do you mean by Evolutionary Process Models? Compare the Spiral Model of Software Development with Prototyping Model. **07**
- (b) What is Extreme Programming (XP)? Explain the Extreme Programming process in detail. **07**
- Q.2** (a) Differentiate between Control Specification (CSPEC) and Process Specification (PSPEC). Explain the Interaction model for WebApps. **07**
- (b) What is Navigation Modeling? Also explain the Content Model for WebApps. **07**
- OR
- (b) Explain Data-centered and Call-return architectural style in detail with appropriate diagrams. **07**
- Q.3** (a) Discuss Open Closed Principle & Liskov Substitution Principle of class based component-level design? **07**
- (b) Explain the concept of Aesthetic design and Navigation Design for WebApp design in detail. **07**
- OR
- Q.3** (a) Discuss the advantages of using Pattern-Based Software design. How Architectural patterns are different from Component level design patterns. **07**
- (b) What do you understand by WebApp Interface Design? Also discuss the principles & guidelines for Interface design. **07**
- Q.4** (a) What is Integration Testing? Describe in detail top-down and bottom-up Integration Testing. **07**
- (b) What is the objective of Security Testing and how it is different from Performance Testing? **07**
- OR
- Q.4** (a) What is an Architectural design? Also explain its Archetypes in detail. **07**
- (b) What is Black-Box Testing? List out various testing techniques applied in Black-Box testing. Explain any one in detail **07**
- Q.5** (a) Explain COCOMO II model with suitable example. **07**
- (b) Explain Function-Based Metrics for the requirement modeling in brief. **07**

OR

- Q.5 (a)** Explain Object Oriented Design Metrics for the design modeling in brief. **07**
- (b)** Write short note on : a) Verification and Validation **04**
b) White-Box Testing **03**
