

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

MCA - SEMESTER-V • EXAMINATION – SUMMER • 2014

Subject Code: 650001

Date: 23-05-2014

Subject Name: Software Engineering

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 “Software Engineering”. Write a brief note on Prescriptive Process Models. **06**
- (b) Explain the following terms in brief : **04**
- (i) Phases of Extreme Programming (XP) (ii) Scrum
- (c) Distinguish between the following : **04**
- (i) Cohesion and Coupling (ii) Architectural Style and Architectural Pattern
- Q.2** (a) What do you mean by Eliciting Requirements? What is its role in building analysis model? How quality of requirements can be helpful in model building ? **07**
- (b) State and explain the golden rules that form the basis of interface design. **07**

OR

- (b) Write and explain the guiding principles of Validation and Testing. **07**
- Q.3** (a) Discuss Requirements Modeling for WebApps. **07**
- (b) Explain Data abstraction and procedure abstraction. **07**

OR

- Q.3** (a) Discuss Functional independence and Information hiding **07**
- (b) Explain OO Design Concepts with suitable examples. **07**
- Q.4.** (a) Write a short note on Formal Technical Review (FTR). **07**
- (b) Explain Equivalence Partitioning and Boundary Value Analysis of Black-Box Testing. **07**

OR

- Q.4.** (a) Write a brief note on : Architectural Styles. **07**
- (b) Discuss following Principles : **07**
- (i) Open-Closed Principle (OCP) (ii) Common Reuse Principle (CRP)
- Q.5.** (a) Discuss Test Strategies for Conventional Software. **07**
- (b) What is Basis Path Testing? Explain Flow Graph Notation and Independent Program Path. **07**

OR

- Q.5.** (a) Explain Unit Testing, Integration Testing and Validation Testing in an OO Context. **07**
- (b) Discuss Metrics for Requirements Model and Metrics for Design Model. **07**
