

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**MCA - SEMESTER-V • EXAMINATION – WINTER • 2014**

**Subject Code: 2650001**

**Date: 28-11-2014**

**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) Explain software engineering as a layered technology. **07**  
(b) Explain incremental model for system development. Differentiate it with spiral model. **07**
- Q.2** (a) Write a short note in context of agile process: **07**  
1) Extreme programming  
2) Scrum  
(b) Explain feasibility study with the example of School Management System. Draw use case diagram of School Management System. **07**
- OR**
- (b) List five functional requirements of Library Management System. Draw DFD level-0 and DFD Level-1 for Library Management System. **07**
- Q.3** (a) What is software design? Explain various principles and design concepts of software design. **07**  
(b) What is software architecture? Why is software architecture important? Explain the architectural styles and patterns. **07**
- OR**
- Q.3** (a) Define the function independence. Explain different cohesion and coupling types in details. **07**  
(b) What are the various elements of good user interface design? Explain the golden rules for the user interface design. **07**
- Q.4** (a) Define the testing. Explain the testing process in details. **07**  
(b) Explain why top-down testing is not an effective strategy for testing object-oriented systems. **07**
- OR**
- Q.4** (a) What is the distinction between alpha and beta testing? Explain why these forms of testing are particularly valuable. **07**  
(b) Write a short note on control structure testing. **07**
- Q.5** (a) Describe the detail work for the requirements gathering for WebApps. **07**  
(b) Write a short note on content testing for WebApps. **07**
- OR**
- Q.5** (a) What is W5HH principle? Explain in detail. **07**  
(b) Write a short note on WebApp interface design. **07**

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