

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**
