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## **MSE - 103**

## M.E./M. Tech I Semester

Examination, June 2013

## **Software Engineering**

Time: Three Hours

Maximum Marks: 70

*Note:* Attempt any five questions. All questions carry equal marks.

- 1. a) What is system engineering? Give its hierarchy.
  - Explain how do the use of software engineering principles help to develop software products cost-effectively and timely. Elaborate your answer by using suitable example.
- 2. a) Discuss the various elements of analysis modeling?
  - b) Distinguish between product engineering and requirement engineering.

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3. a) If the prototyping model is being used in the development effort, is it necessary to develop on SRS document? Justify your answer.

- b) What are the different models of a problem that can be constructed using UML? Why is it necessary to construct more than one type of model of a problem?
- 4. a) What do you mean by the terms cohesion and coupling in the context of software design? How are these concepts useful in arriving at a good design of a system?

- b) Discuss the implications of human cognition capabilities on user Interface Design?
- 5. a) What do you understand by component based user interface development? What are the advantages of component based user interface development?
  - b) Do you agree with the following statement: "System testing can be considered a pure black box test"? Justify your answer.
- 6. a) What are the different approaches to integration testing? Which approach is the most suitable for large software systems? Why?
  - b) What is Formal Technical Review (FTR)? Discuss its objectives.

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. a) What is software quality? Discuss various McCall's quality factor.

b) What is the difference between process metrics and product metrics? Give four examples of each.

## 8. Write short notes:

- i) Function Based Metrics
- ii) Interface Design Metrics
- iii) Unit Testing
- iv) Design Evaluation
- v) Behavioral Modeling.

MSE-103 PTO