

Total No. of Questions :8]

[Total No. of Printed Pages :2

[2]

Roll No

MSE - 103
M.E./M.Tech., I Semester
Examination, June 2016
Software Engineering

Time : Three Hours

Maximum Marks : 70

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

1. a) Explain the difference between quality and reliability in the light of following situation : 7
 - i) Program is correct but it is not reliable.
 - ii) Program is correct but does not exhibit good quality.
- b) What is software engineering process? Discuss some of the key process attributes. 7
2. a) What do you mean by the terms cohesion and coupling in context of software design? How are these concepts useful in arriving at a good design of a system? 7
- b) What are equivalent classes and boundary value test cases? Explain. 7
3. a) What are the testing principles the software engineer must apply while performing the software testing? 7
- b) Discuss the objectives of software design. How do we transform an informal design to a detailed design? 7

4. a) Explain in brief framework for technical software metrics. 7
- b) What is Software Requirements Specification (SRS)? List out the advantages of SRS standards. Why is SRS known as the black box specification of a system. 7
5. a) Explain Use Case Modeling and also describe the limitation of Use Case Modeling. 7
- b) What are the elements of analysis modeling? Explain each of them in brief and compare functional and behavioral models. 7
6. a) Explain in brief the utility of Data Dictionary and class diagram. 7
- b) Explain the prototyping approaches in software process. 7
7. a) Give a brief note on : 7
 - i) Metrics for Testing and Maintenance
 - ii) Metrics for the analysis model
- b) Explain in brief McCall's Quality Factors. 7
8. Write short notes on the following (Any four) : 14
 - a) Bang Metric
 - b) Basic Path Testing
 - c) Component Level Design
 - d) Data Modeling
 - e) Hierarchy of System Engineering
