

MSE - 103
M.E./I VI.Tech I Semester
Examination, December 2014
Software Engineering
Time : Three Hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks. Assume data/value if required.

1. a) Who should be involved in a requirements review? Draw a process model showing how such a review might be organized. 7
b) Under what circumstances would you recommend that prototyping should be used as a means of validating system requirements? 7
2. a) List out major strengths of UML can you also list some of its limitations? 7
b) How are procedural modelling, data modelling and object-oriented modelling different from each other? 7
3. a) Explain why maximizing cohesion and minimizing coupling leads to more maintainable systems. What other attributes of a design might influence system maintainability? 7
b) Explain Why it may be necessary to design the system architecture before the specification are written. 7
4. a) What are the guidelines which should be followed when using colour in a user interface? Suggest how colour might be used to improve the interface of an application system which you use? 7
b) What are the characteristics of a good design? Explain each. 7
5. a) What is the difference between validation and verification of software? Explain how their failure can be avoided? 7
b) Explain the terms 'correctness' robustness and reliability of the software how are they different from each other. 7
6. a) Explain why interface testing is necessary given that individual units have been extensively validated through unit testing and program inspections. 7
b) Explain about formal Technical Review 7
7. a) What are common quality metrics for software? 7
b) Discuss about Mc Call's quality factors. 7
8. Write short note on 14
 - i) Bang metric
 - ii) Orthogonal Array Testing
 - iii) Transaction Mapping
 - iv) UML