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Roll No

MSE - 202

M.E./M.Tech., II Semester

Examination, June 2014

Software Quality Assurance

Time: Three Hours

Maximum Marks: 70

Note: Total number of questions Eight. Attempt any five quetions (including all parts). Assume missing data, if any, suitably.

- a) What are the different specific problems associated with different aspects of defects in QA activities.
 - b) What are the overall responsibilities of the top managements for software quality?
- a) Write about the general principles of Capability Maturity Model (CMM).
 - Explain about the various techniques for defect prevention in quality assurance beyond testing.
- a) What is a test metric? List the various test metrics associated with software testing. Explain any two.
 - b) What is meant by Empirical Estimation Techniques? Write down the major differences between expert judgment technique and delphi cost estimation technique.
- 4. a) Differentiate between a software measure, software metric and software measurement with the help of examples?

b) Define the Lines of Code and Function Point metric to measure the size of the software product? State their advantages and disadvantages?

- 5. a) From a Testing perspective, what are the MAIN purposes of Configuration Management?
 - b) Explain the following test: (i) Installation testing
 (ii) Usability testing (iii) Performance testing.
- 6. a) What is the purpose of using structural testing techniques? What are the various types of structural testing techniques? Explain any three techniques in detail.
 - b) Explain the following: (i) Test planning and preparation
 (ii) Hierarchical web testing.
- a) Define verification and validation. Explain two techniques of system checking and analysis.
 - b) Which of the following defines the expected results of a test? Test case specification or test design specification. Explain your answer in detail.
- 8. a) What is a CASE tool, CASE workbench, CASE environment and CASE support?
 - Explain tree based reliability model for reliability analysis with is pros and cons.
