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Question Paper Code : 81346

M.E. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Elective

Computer Science and Engineering

CS 9262/CS 962 — SOFTWARE QUALITY ASSURANCE

(Regulation 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the objectives of Software Quality Assurance?
2. What is Quality Planning?
3. What should be the Qualities of Assessment Team Members?
4. What is regression testing? Why is it necessary to do regression testing?
5. What is the difference between black box testing and white box testing?
6. What are the Components of Test Plan?
7. List the requirements for successful Software Quality Metrics?
8. What is the need for Software Configuration Management?
9. What are the benefits of SQA Standards?
10. What are the problems in the application of cost of Software Quality metrics?

PART B — (5 × 16 = 80 marks)

11. (a) Explain:
 - (i) SQA Defect Removal Policies. (8)
 - (ii) Reviews. (8)

Or

- (b) Explain different SQA Plans and how they are implemented. (16)

12. (a) What is Test Adequacy? How is it measured? Also, explain how to do test enhancement using measurements of test adequacy. (16)

Or

- (b) Describe Finite State Models in detail. (16)

13. (a) Explain how White box testing differs from Black box testing. (16)

Or

- (b) Discuss Test Plan in detail. (16)

14. (a) Explain how to implement Software Quality Metrics (SQM) and the limitations of SQM. (16)

Or

- (b) Discuss in detail the hierarchical models of Boehm and McCall. Also, explain the significance of these models in software development process. (16)

15. (a) Explain the requirements needed by ISO 9000-3 quality system standard for a software organization. (16)

Or

- (b) Illustrate the various levels of Capability Maturity Model and Key Process Areas (KPA) with neat diagram. (16)