Reg. No. :

Question Paper Code : 11174

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2014.

Eighth Semester

Computer Science and Engineering

080230063 — SOFTWARE QUALITY MANAGEMENT

(Regulation 2008)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   Define: Software quality.

2.   Define: Six sigma.

3.   What are the steps implied by statistical quality assurance?

4.   Give the difference between review and audits.

5.   What is meant by CASE tools? Give one example.

6.   What is meant by reliability engineering?

7.   List out various elements of Quality Management system.

8.   What are the advantages of Rayleigh model framework?

9.   What are the management responsibilities regarding ISO 9001 requirements?

10. What are the benefits that an international standard such as ISO and six sigma will provide to industry?

PART B — (5 × 16 = 80 marks)

11. (a)   Explain the Gilb's approach in measuring quality. Compare Gilb's approach with McCall and Boehm.   (16)

Or

     (b)   How are software metrics useful in measuring and managing software Quality Attributes? Explain briefly.   (16)

12. (a) Describe the Software Quality Assurance (SQA) plan for the generic software maintenance process.

Or

(b) Explain how software quality assurance is ensured for a software product.

13. (a) Explain the importance of Reliability Growth models for Quality assessment.

Or

(b) Discuss Ishikawa's seven basic tools of quality in detail. Give one example for Ishikawa's diagram.

14. (a) Explain the terms : Functionality and Portability. (8 + 8)

Or

(b) How will you measure customer satisfaction analysis in a software project? Give examples. (16)

15. (a) How will you use Capability Maturity Model (CMM) in software projects? Explain. (16)

Or

(b) How will you improve the efficiency of a software product using software quality models? Explain. (16)

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