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Question Paper Code : 33294

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Eighth Semester

Computer Science and Engineering

CS 1020/CS 1024/070230088 — SOFTWARE QUALITY MANAGEMENT

(Common to B.E. (Part - Time) Seventh Semester, Regulation 2005)

(Regulation 2004/2007)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Software Quality.
2. How will you measure the software reliability?
3. Define cost of quality.
4. What is the need for software quality assurance plan?
5. Write the formula to compute defect removal efficiency.
6. Mention the criteria for evaluating the reliability model.
7. State the importance of PTR model.
8. Mention the activities of quality improvement program.
9. Write down the advantages of quality standards.
10. List the features of ISO 9000 series.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the Garvin's view of quality. (8)
(ii) Discuss the Gilb's approach for quality. (8)

Or

- (b) (i) Explain the hierarchical model of Boehm. (8)
(ii) List the McCalls quality metrics and explain them. (8)

12. (a) (i) Discuss the significance of SQA documentation. (8)
(ii) How will you form teams to maintain quality in software development and products? (8)

Or

- (b) (i) List the techniques to be followed in reviews and explain them. (8)
(ii) What are quality audits? Explain it. (8)
13. (a) Write about the basic tools for quality control suggested by Ishikawa. (16)

Or

- (b) Explain briefly about the dynamic software reliability models. (16)
14. (a) What are the important components of Quality management system? Discuss how are reliability growth models useful for quality management system. (16)

Or

- (b) What are the module design metrics used in practice? Discuss the significance of these metrics. (16)
15. (a) Write a note on CMMI developed by software engineering institute. (16)

Or

- (b) Narrate a suitable situation for the application of six sigma concepts and ISO 9000 series. (16)