

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 51157

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 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. Compare the features of Bohem and McCall's Quality models.
3. Write the Quality tasks and define them.
4. Write the steps in SQA plan.
5. Write the basic quality tools for software development and their special features.
6. Define the cumulative distribution function and probability density function used in Rayleigh's model.
7. How do you broadly classify the software reliability growth models? For each class list the models used.
8. Write the types of regression analysis and their application in data analysis.
9. List the ISO 9000 series of Quality management standards and their special features.
10. Write the five levels in the CMM model and their objectives for process improvement.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the international standard for Software Product Quality. (8)
(ii) Write notes on the metrics for software quality. (8)

Or

- (b) Explain in detail about any one of the approaches to assess software product quality.

12. (a) Explain the implementation of SQA in an organization.

Or

- (b) (i) Write notes on software documentation for quality assurance. (8)
(ii) Discuss about the SQA team and their responsibilities. (8)

13. (a) Explain about the Ishikawa's seven basic tools for quality control.

Or

- (b) Explain how Rayleigh's model is used to model software reliability for the entire development process.

14. (a) In detail explain about the reliability growth models for quality management.

Or

- (b) With appropriate illustration explain how to perform customer satisfaction surveys.

15. (a) Explain the alternative maturity models for process improvement.

Or

- (b) Explain the process of applying ISO 9000 for software development.