Reg. No. :

Question Paper Code : 31175

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2013.

Eighth Semester

Computer Science and Engineering

080230063 — SOFTWARE QUALITY MANAGEMENT

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — $(10 \times 2 = 20 \text{ marks})$

1. What are the metrics considered for software quality?

2. Draw the GE model for software quality.

3. What are the criteria's defined by McCall for quality?

4. What are the measures used to satisfy customers?

5. Define Zero defects. How is it achieved?

6. What are the tools for measuring quality of software?

7. What is Six Sigma?

8. Write any four Crosby's steps for quality improvement.

9. What are the components of ISO defined QMS?

10. How does Kaizen improve the quality of the system?

PART B — $(5 \times 16 = 80 \text{ marks})$

11. (a) Discuss the work of Gilb in measuring the quality of a software product.

Or

(b) Explain the hierarchical models of Boehm and McCall and discuss the interrelation of quality criteria.

12.

(a)

Explain Ishikawa's seven basic tools for quality control.

Or

- (b) Discuss the need for documentation, reviews and audits.
- (a) Describe the detailed mechanics of defect injection and removal at each steps of software development process.

Or

- (b) Discuss about CASE tools and their types. Explain the various software engineering contribution methods and tools to quality.
- 14. (a) Explain the role of Rayleigh model framework in software quality management.

Or

- (b) Explain the principal aspects suggested to QMS for software development.
- 15. (a) Mention the purpose of standards and explain ISO9000 series for generic quality management standard.

Or

(b) What is the role of CMM? Discuss in detail about individual levels of CMM.