B 2282

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Fifth Semester

Information Technology

IF 355 — SOFTWARE QUALITY MANAGEMENT

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the different views of 'Quality'.

2. Draw the cost graph associated with software quality in various phases of software development.

3. Write the criteria for a good metric.

4. How will you measure usability?

5. Give the quality model of Deming.

6. How TQM is useful in achieving quality software?

7. Write the purpose of standards.

8. Define (a) Process (b) Product.

9. List the advantages of integrating quality metrics in software development process.

10. Is it possible to impose quality metrics in small organizations? Justify.

11. (a) Explain the hierarchical models of Bohem and McCall.

Or

(b) List the various quality attributes and explain the ways of measuring them.

12. (a) (i) Explain the Gilb approach in Quality Management. (8)

(ii) Explain Information Engineering Methodology. (8)

Or

(b) Discuss in detail the following:

(i) CASE tools (10)

(ii) Quality Standards (6)

13. (a) (i) What are the elements of Quality Management System (QMS)? Explain them in detail. (10)

(ii) Compare the Garvin's views of quality against Keizen's views. (6)

Or

(b) (i) What is time management? Is time management an easy task? With relevant examples discuss the various techniques for time management. (12)

(ii) What is a defect? How is it measured? Discuss. (4)

14. (a) Explain the stages in ISO 9001 process. Who will be the auditors, why an organization needs it and how to get the certification?

Or

(b) Explain the levels of CMM and if an organization wants to be CMM certified, what are the procedures it should follow?

15. (a)

(b

15. (a) Explain the following:

   (i) In-Process Quality Metrics (8)

   (ii) S/W Maintenance Metrics. (8)

Or

   (b) List the metrics associated with the different phases of SDLC. Explain each of them.

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