Reg. No. : | | | | | | | | | | |

Question Paper Code : Z 9385

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2009.

Ninth Semester

Software Engineering

XSE 591 — SOFTWARE METRICS

(Regulation 2003)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the scope of software metrics.

2. What are the benchmark values for software metrics for validation?

3. How do you characterize a software based on metrics?

4. Is there any software metric for data collection?

5. What is LOC? State the problems in its consideration.

6. What are the qualities of software measurement?

7. State the process qualities for software.

8. How do you assess the metric for software maintenance?

9. How cost and metric are related for software?

10. What are software defects? How are they classified?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss the quantifiable actions during the cause of software life cycle. Explain the metrics and their correlation in reality.

Or

(b) Explain software measurement techniques and how measurements are validated.

12. (a) Describe few empirical investigation techniques for data collection and how they are analyzed.

Or

(b) Explain any three statistical methods for data analysis and how they are compared?

13. (a) Describe all the internal product attributes of software and explain how they are measured. Comment on their values.

Or

(b) Discuss on software reviews and inspection schemes. How do they contribute on external product attributes? Explain their measures.

14. (a) Explain few software quality metrics. How product qualities and process qualities are related in terms of metrics? Justify.

Or

(b) Discuss the case study metrics program used in Motorola and IBM. Illustrate.

15. (a) Explain the contents of PTR. Discuss Rayleigh method for management metrics.

Or

(b) Write short notes on :

(i) Defect classification (8)

(ii) Model evaluation. (8)

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