Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 75604

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Nineth 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. What is Software Metric?

2. Which indicators are used in five-point Likert scale to denote the degree of effectiveness?

3. What are direct measures?

4. List the metrics are related to productivity?

5. What is good data?

6. List internal product attributes.

7. Define Usability.

8. What is MTTF?

9. What are the variations suggested by Janes in LOC metric?

10. What are the activities involved in Quality Improvement Program (QIP)?

PART B — (5 × 16 = 80 marks)

11. (a) What are direct and in-direct metrics? Explain with suitable examples.

Or

    (b) Write short notes on Software Maturity Index (SMI) and Software Process Improvement (SPI).   (8 + 8)

12. (a) Explain the methods applied in collecting data, storing and extracting data during software metrics collection.

Or

(b) How will you measure the size of a software product? Discuss the methods used by IT industry to measure software size.

13. (a) What are external product attributes? Explain how they are measured.

Or

(b) How are the internal product metrics collected and how they are measured for real time applications? Explain.

14. (a) List the metrics for software maintenance. Explain them in detail with reference to software quality.

Or

(b) What are software quality metrics? How are they defined and used in software projects?

15. (a) How is Reyleigh model used in quality management during the software development process? Explain briefly.

Or

(b) Write short notes on :

    (i) Problem tracking report model   (8)

    (ii) Software reliability.   (8)

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