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Question Paper Code : 75596

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

Second Semester

Software Engineering

XSE 121 / 10677SW 203 — SOFTWARE ENGINEERING – I

(Regulation 2003/2010)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Suggest the ways to detect software errors in the early phases of the project when code is not yet available.

2. What are software metrics? What is the role of metrics in process management?

3. How can you specify the maintainability and user friendliness of a software system in quantitative terms?

4. Draw the DFD for the system that pays workers.

5. What are the limitations of the cost estimation models?

6. What are the steps involved in review process and mention the major benefits of reviews?

7. Given a structure with high fan-out, how would you convert it to a structure with low fan-out?

8. List the factors affecting coupling.

9. What is meant by boundary value analysis?

10. What is structured programming and why is it important?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the steps involved in process development model and briefly discuss about waterfall model and spiral model.

Or

(b) Discuss the three major components involved in SCM.

12. (a) Write the SRS for restaurant example and compute the function points.

Or

(b) Discuss the metrics defined for requirements: function points and quality metrics.

13. (a) With an example, discuss the COCOMO model for cost estimation.

Or

(b) Discuss the models used to assess the project duration and staffing.

14. (a) Explain the four major steps involved in Structured Design Methodology.

Or

(b) Describe the metrics applicable to detailed design.

15. (a) Discuss about various metrics focused on the code, a final product.

Or

(b) Discuss the three different approaches in structural testing.

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