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

D 4121

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2008.

Fourth Semester

Information Technology

CS 1353 — SOFTWARE ENGINEERING

(Regulation 2004)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the various elements that a computer based system makes use of?

2. What are the various activities in WIN WIN Spiral model?

3. Define Cardinality and Modality?

4. Why requirements elicitation Process is difficult?

5. What are the strength and weakness for transform mapping?

6. Differentiate between periodic and aperiodic stimuli.

7. What is meant by Smoke testing?

8. Distinguish between software fault and software failure.

9. What are the types of software maintenance?

10. Enumerate the advantages of CASE tool?

PART B — (5 × 16 = 80 marks)

11. (a) (i) How do you differentiate software engineering from system engineering? (6)

(ii) Explain the system engineering hierarchy. What are the restraining factors to construct a system model? (10)

Or

(b) Compare Water fall and spiral models of software development. Give the advantages and disadvantages of each. (6 + 6 + 4)

12. (a) What is prototyping technique? How prototype models are prepared for a software process? Discuss. (4 + 12)

Or

(b) (i) What is the need for Feasibility study? What is the outcome of feasibility Study? (4 + 4)

(ii) What is data dictionary? And Explain data modeling. (2 + 6)

13. (a) What are the different architectural styles for software design and explain each design in detail. (4 + 12)

Or

(b) What is software configuration management? Explain software configuration management. Discuss. (4 + 12)

14. (a) (i) What is Unit testing ? Why is it so important? Explain the unit test considerations and test procedures. (2 +2 +4 + 4)

(ii) Mention the categories of debugging approaches. (4)

Or

(b) (i) What do you mean by Cyclomatic complexity? Explain Cyclomatic complexity computation procedure with two examples. (2 + 5 + 5)

(ii) What is verification and validation? (4)

15. (a) (i) Explain Delphi cost estimation technique. (6)

(ii) Discuss in detail about software evolution. (10)

Or

(b) (i) What are the different activities in project planning? Explain. (12)

(ii) What is Error tracking? Discuss. (4)

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