G 3536

M.C.A. DEGREE EXAMINATION, MAY/JUNE 2007.

Third Semester

MC 1703 — SOFTWARE ENGINEERING

(Regulation 2005)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the main criterion for deciding whether or not to use the waterfall model in software development project?

2. Give the model of extreme programming process.

3. State the reason why software requirements elicitation is difficult.

4. How does state diagram represent the behavior of a computer based system?

5. Differentiate dynamic model and functional models.

6. What is control coupling?

7. What is alpha test and beta test?

8. State the problem that are encountered when top-down integration is chosen.

9. What is base line?

10. What is version control?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Describe the spiral model of software development. (10)

(ii) State the advantages and disadvantages of the evolutionary model of software development. (6)

Or

(b) Discuss the following agile process models

(i) Adaptive software development and its life cycle (6)

(ii) Dynamic systems development (5)

(iii) Serum. (5)

12. (a) Describe the seven distinct functions of requirements engineering task. (16)

Or

(b) Explain the different models used for analysis. Explain the sub model with an example. (16)

13. (a) Discuss the various steps involved in transform mapping and transaction mapping. (16)

Or

(b) Explain the various design principles that enable an interface (i) to reduce the users memory load (ii) make the interface consistent. (16)

14. (a) Discuss the various tests to be conducted for system testing. (16)

Or

(b) Describe how unit testing and integration testing is conducted for object oriented software. (16)

15. (a) Write short notes on :

(i) cost impact of software defect (4)

(ii) defect amplification and removal (4)

(iii) software reliability (4)

(iv) change control. (4)

Or

(b) Write short notes on :

(i) software configuration management (6)

(ii) software quality assurance (5)

(iii) quality standards. (5)
