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10MCA42

Fourth Semester MCA Degree Examination, June 2012
Software Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. What is software? Discuss the attributes of a good software. (05 Marks)
b. What are emergent system properties? Give examples. (05 Marks)
c. Explain systems engineering process with a neat diagram. (10 Marks)
- 2 a. What are critical systems? Explain briefly the different types of it. (05 Marks)
b. What is safety? Suggest appropriate measures for improving safety of a system. (05 Marks)
c. Explain waterfall model with its merits and demerits. (10 Marks)
- 3 a. What are CASE tools? Classify CASE tools based on the functions. (05 Marks)
b. Explain system procurement process with the help of block diagram. (05 Marks)
c. Explain rational unified process in detail. (10 Marks)
- 4 a. Distinguish between functional and non-functional requirements with examples. (05 Marks)
b. What is the general structure of a requirements document suggested by IEEE? (05 Marks)
c. Explain requirements elicitation and analysis. What are the problems involved in it? (10 Marks)
- 5 a. Explain the practice followed in extreme programming. (05 Marks)
b. Write a short note on ethnography. (05 Marks)
c. Explain object-oriented design process in detail. (10 Marks)
- 6 a. What is state machine model? Explain with example. (05 Marks)
b. Derive factors that influence staff selection. (05 Marks)
c. Explain spiral model with a neat diagram. What are the merits of spiral model? (10 Marks)
- 7 a. With a neat diagram, explain rapid applications development environment. (05 Marks)
b. Write a note on system re-engineering. (05 Marks)
c. What is system model? Explain in detail behavioral models, with examples. (10 Marks)
- 8 a. What is system testing? Explain briefly integration, release and performance testing. (10 Marks)
b. Explain risk management process with a neat diagram. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.