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10MCA42

Fourth Semester MCA Degree Examination, June/July 2014
Software Engineering

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 a. What are the key challenges faced by software engineering? (04 Marks)
b. What are emergent system properties? Briefly explain. (06 Marks)
c. Explain system engineering process with a neat diagram. (10 Marks)
- 2 a. Describe waterfall model. Discuss its merits and demerits. (10 Marks)
b. What are CASE tools? Classify CASE tools based on the functions. (10 Marks)
- 3 a. What are the different types of software requirement? Explain non-functional requirement, with a neat diagram. (10 Marks)
b. What is the general structure of a requirement document suggested by IEEE? (06 Marks)
c. What do you understand by ethanography? (04 Marks)
- 4 a. What is system model? Explain in detail different behavioural model with examples. (10 Marks)
b. Explain risk management process. (10 Marks)
- 5 a. What are the various architectural design models? Explain any two. (10 Marks)
b. Explain object oriented design process. (10 Marks)
- 6 a. What are agile methods? Discuss the principles of agile methods. (07 Marks)
b. Discuss rapid application development, with a neat diagram. (07 Marks)
c. Write the difference between validation and verification and explain validation is a difficult process. (06 Marks)
- 7 a. What is system testing? Explain briefly integration, release and performance testing. (10 Marks)
b. What are the factors to be considered during the process of staff selection? (10 Marks)
- 8 Write short notes on:
a. COCOMO model.
b. Professional and ethical responsibility of software engineer.
c. Data dictionary.
d. Spiral model of the software process. (20 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.