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10MCA42

Fourth Semester MCA Degree Examination, Dec. 2016/Jan. 2017
Software Engineering

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

- 1
 - a. Define the term software. Specify and explain the attributes of good software. (06 Marks)
 - b. List the fundamental activities, which are common to all software process. (04 Marks)
 - c. With a block diagram, explain the incremental development process. (10 Marks)

- 2
 - a. What is system procurement? Explain the system procurement process. (06 Marks)
 - b. Write a short note on system decommissioning. (04 Marks)
 - c. Explain rational unified process (RUP) in detail. (10 Marks)

- 3
 - a. What do you mean by requirement engineering process? Explain the phases in the requirement engineering process. (06 Marks)
 - b. List the types of non-functional requirements. Explain briefly. (06 Marks)
 - c. What is the general structure of a requirements document suggested by IEEE? (05 Marks)
 - d. What do you understand by ethnography? (03 Marks)

- 4
 - a. Describe the process of risk management in software project management with a neat diagram. (10 Marks)
 - b. What is state machine model? Explain with example. (06 Marks)
 - c. Write short notes on milestones and deliverables. (04 Marks)

- 5
 - a. Explain repository model. Discuss the advantages and disadvantages of a shared repository. (10 Marks)
 - b. List the stages of object – oriented design. Explain any three of these. (10 Marks)

- 6
 - a. What are agile methods? Discuss the principles of agile methods. (07 Marks)
 - b. What are the practices followed in extreme programming. (07 Marks)
 - c. Explain the activities in the re-engineering process with a neat diagram. (06 Marks)

- 7
 - a. Describe the characteristics of clean room software development. (08 Marks)
 - b. Explain the various stages involved in automated static analysis. (08 Marks)
 - c. What is the difference between white box and block box testing? (04 Marks)

- 8
 - a. Write short notes on :
 - i) COCOMO model (10 Marks)
 - ii) CMM model. (10 Marks)
 - b. List and explain the factors that influence group working. (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.