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13MCA33

**Third Semester MCA Degree Examination, Dec.2015/Jan.2016**  
**Software Engineering**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions.**

- 1 a. Why software engineering is important? State any two reasons. Brief the essential attributes of a good software. (05 Marks)  
b. Brief about the general issues that affect different types of softwares. (05 Marks)  
c. Describe software engineering code of ethics and professional practices as defined by IEEE/ACM. (10 Marks)
- 2 a. Discuss the principles of agile methods. (05 Marks)  
b. In brief explain the extreme programming release cycle. (05 Marks)  
c. With neat diagram, explain different types of non – functional requirements. (10 Marks)
- 3 a. Why requirement validation process is required? Explain different types of checks that should be carried out in this cycle of requirement validation. (07 Marks)  
b. Mention the various difficulties that a software engineer faces during eliciting and understanding requirements. (05 Marks)  
c. Explain in detail the structural models of software system. (08 Marks)
- 4 a. Explain reuse oriented software engineering. (05 Marks)  
b. Describe in detail the software process activities. (15 Marks)
- 5 a. Briefly explain component and connect view. Discuss on client – server system architecture with respect to C and C. (10 Marks)  
b. Write a short note on project schedule and staffing. (05 Marks)  
c. Explain the concept of risk assessment and mention the techniques for managing them. (05 Marks)
- 6 a. Describe the elements of a component model with a neat diagram. (10 Marks)  
b. What are CBSE processes? Explain basic process of CBSE model. (10 Marks)
- 7 a. Explain some important design issues that need to be considered in distributed system engineering. (10 Marks)  
b. Explain master – slave architecture for distributed systems with a suitable example. (10 Marks)
- 8 a. Describe in detail the process of testing. (10 Marks)  
b. Mention the differences between white-box testing and black-box testing. (05 Marks)  
c. Explain state based testing.

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.