USN ☐☐☐☐☐☐☐☐☐☐ 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 with an example. **(05 Marks)**

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