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13MCA33

Third Semester MCA Degree Examination, Jun/July 2016
Software Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

1. a. Differentiate a software and software engineering. Explain the essential attributes of a good software. (06 Marks)
b. Bring out the significance of being ethical and moral responsibility of respected software professional. (04 Marks)
c. Describe the salient features of Boehm's spiral model of the software development process with an illustrative diagram. List its merits and de-merits. (10 Marks)
2. a. Explain the phases of RUP with a neat diagram. (06 Marks)
b. Differentiate between waterfall and incremental development process. (10 Marks)
c. Discuss any four (4) different types of software application. (04 Marks)
3. a. Explain the various activities in requirement engineering process. (10 Marks)
b. What is meant by pair programming? Mention the advantages of pair programming. (05 Marks)
c. With help of a neat diagram, discuss the various phases involved in scrum process. (05 Marks)
4. a. What is use case diagram? Explain the importance of use case modeling. (10 Marks)
b. Discuss the view patient information use case sequence diagram illustrating basic of notations used. (10 Marks)
5. a. Discuss the importance of Behavioral model. (05 Marks)
b. Discuss the importance of the role of a software architecture. (05 Marks)
c. Briefly explain different architecture styles for C and C view. (10 Marks)
6. a. What is quality plan? With a neat diagram illustrate the defect injection and removal cycle. (05 Marks)
b. Briefly discuss the two commonly used approaches in effort estimation. (05 Marks)
c. Briefly explain the steps involved in the risk management process, with a neat diagram. (10 Marks)
7. a. Define Error, Fault and Failure with an example each. (04 Marks)
b. Discuss the four stages of software testing with a neat diagram. (06 Marks)
c. Write in detail any two black box testing techniques with example. (10 Marks)
8. Write short notes on :
a. The fundamental activities in software engineering.
b. Ethnography
c. Extreme programming
d. Life Cycle of a defect (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.