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10IS51

Fifth Semester B.E. Degree Examination, Dec.2016/Jan.2017
Software Engineering

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. Explain the term software engineering and system engineering; mention the important attributes of good software products. (06 Marks)
b. What is a software process model? Explain the types of software process models. (06 Marks)
c. What are legacy systems? Explain the components of legacy system with neat diagram. (08 Marks)
- 2 a. What are critical systems? Explain the different types of critical systems. (06 Marks)
b. With block diagram, explain water fall process model. Mention the advantages and disadvantages of waterfall model. (08 Marks)
c. Explain the requirement engineering process with diagram. (06 Marks)
- 3 a. Mention the differences between functional and non-functional requirements. Give example for each. (06 Marks)
b. Explain the structure of the requirements documents. (08 Marks)
c. Explain the following: i) Ethnography ii) Scenarios. (06 Marks)
- 4 a. Explain different types of system models. (06 Marks)
b. Differentiate between milestones and deliverables. (02 Marks)
c. List the activities of risk management with diagram. (04 Marks)
d. What are project management activities? Explain. (08 Marks)

PART – B

- 5 a. With an example describe the repository model and give its advantages and disadvantages. (08 Marks)
b. Draw and explain state diagram for a typical weather station. (08 Marks)
c. Define control styles. (04 Marks)
- 6 a. Explain the principle of agile methods. (06 Marks)
b. What is prototype? Explain the process prototype development with diagram. Mention the advantages of using prototype. (08 Marks)
c. With a neat diagram describe the system evolution process. (06 Marks)
- 7 a. Explain the following : i) Unit testing ii) Integration testing (06 Marks)
b. Explain clean Room software development. (08 Marks)
c. List classes of interface errors. (06 Marks)
- 8 Write short notes on the following :
a. IEEE/ACM code of Ethics
b. The client server model
c. Lehman's laws
d. Software cost estimation techniques. (20 Marks)

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