USN | | | | | | | | | | **06IS51**

Fifth Semester B.E. Degree Examination, Dec.2013 / Jan. 2014
Software Engineering

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions, selecting atleast TWO question from each part.*

PART - A

1   a. Explain briefly two fundamental products of software and activities involved in system design. **(10 Marks)**
    b. Discuss briefly logical parts of a legacy system and relationship. **(06 Marks)**
    c. What are emergent system properties? Give examples for each. **(04 Marks)**

2   a. What are four principal dimensions to dependability? **(04 Marks)**
    b. Explain with neat diagram, software system as a mapping of an input to an output set. **(06 Marks)**
    c. With a neat figure, explain activities involved in general model of the design process. **(10 Marks)**

3   a. Briefly explain spiral model of requirements engineering process. What are its goals? **(08 Marks)**
    b. Discuss three view points used in requirement engineering process. **(06 Marks)**
    c. What are the requirements validation techniques? Explain briefly. **(06 Marks)**

4   a. With a block diagram, explain the context model of an ATM system. **(07 Marks)**
    b. Name the five types of project plans. **(05 Marks)**
    c. Explain with a block diagram, different stages involved in risk management process. **(08 Marks)**

PART - B

5   a. What is event driven systems? Explain briefly two models. **(04 Marks)**
    b. With a neat diagram, explain three layers in architectural design in weather station software. **(06 Marks)**
    c. What is static and dynamic model? Explain with neat sketch, sequence model of collection of data from a weather station. **(10 Marks)**

6   a. Discuss the principles of agile methods. **(05 Marks)**
    b. Discuss the major difficulties with iterative development and incremental delivery. **(05 Marks)**
    c. Briefly explain the principles of extreme programming. **(10 Marks)**

7   a. Explain various stages involved in automated static analysis. **(10 Marks)**
    b. Explain briefly tools that might be included in testing workbench. Discuss about software test workbench. **(10 Marks)**

8   a. Explain factors governing staff selection. **(10 Marks)**
    b. Explain briefly the various software estimation techniques. **(10 Marks)**

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