Seventh Semester B.E. Degree Examination, Dec.09/Jan.10

Software Architecture

Time: 3 hrs.

Max. Marks:100

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

PART – A

1　a. What is a architecture business cycle? (07 Marks)
　　b. Why is software architecture important? (03 Marks)
　　c. List all the common software architecture structures. Explain the component connector structure. (10 Marks)

2　a. Explain the architecture styles based on :
　　　　i)　Data abstraction and object-oriented organization
　　　　ii)　Event-based, implicit invocation (10 Marks)
　　b. What are the basic requirements for mobile robot architecture? (04 Marks)
　　c. Explain the control loop solution for a mobile robot. (06 Marks)

3　a. What is availability? Explain the general scenario for availability. (10 Marks)
　　b. Classify security tactics. What are the different tactics for resisting attacks? (10 Marks)

4　a. With neat diagrams, depict the dynamic behaviour of pipes and filters pattern. (10 Marks)
　　b. What are the benefits of a layered pattern? (04 Marks)
　　c. Give the structure of blackboard with CRC cards. (06 Marks)

PART – B

5　a. Explain the variants of broker architecture. (10 Marks)
　　b. Depict the dynamic behavior of MVC; with any one scenario. (05 Marks)
　　c. Give the CRC cards for top level, intermediate level and bottom level PAC agents. (05 Marks)

6　a. Explain the benefits and liabilities of microkernel pattern. (10 Marks)
　　b. Enumerate the implementation steps of reflection pattern. (10 Marks)

7　a. Give the structure of whole port design pattern with CRC. (05 Marks)
　　b. What are the application areas of master slave pattern? (10 Marks)
　　c. What are the variants of proxy pattern? (05 Marks)

8　a. What are the three steps for choosing views for a project? (06 Marks)
　　b. Write a note on view catalog. (04 Marks)
　　c. What are the options for representing connectors and systems in UML? (10 Marks)

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