Seventh Semester B.E. Degree Examination, December 2012
Software Architecture

Time: 3 hrs.   Max. Marks:100

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

PART - A

1   a. Explain in detail the building of Architecture Business cycle by identifying the factors of influence. **(10 Marks)**
    b. Briefly explain, what does software architecture constitute. **(05 Marks)**
    c. Describe the Architectural structure of a system. **(05 Marks)**

2   a. Enlist the different Architectural styles and discuss in brief Event – based, Implicit Invocation. **(06 Marks)**
    b. Explain the software paradigm for process control. **(04 Marks)**
    c. State the problem of KWIC. Propose Abstract Data types and Implicit Invocation styles to implement solutions for the same. **(10 Marks)**

3   a. Explain quality attribute scenarios. **(06 Marks)**
    b. Distinguish between availability and modifiability scenarios. **(04 Marks)**
    c. Explain the following with respect to tactics :
       i) Fault prevention   ii) Defer binding time   iii) Resource arbitration
       iv) Internal monitoring   v) Run time tactics. **(10 Marks)**

4   a. Explain layers architectures pattern, with sketches and CRC cards. **(06 Marks)**
    b. List the components of a pipe and filter architecture pattern and depicit the dynamics behavoiur of it. **(08 Marks)**
    c. Explain the forces that influence solution to problem based on black board pattern. **(06 Marks)**

PART - B

5   a. Describe the structure of Broker architectural pattern with their respective CRC cards. **(08 Marks)**
    b. Explain the dynamic behaviour of MVC pattern, with sketches. **(08 Marks)**
    c. List the benefits of PVC pattern. **(04 Marks)**

6   a. Enumerate the implementation of a Micro Kernel pattern. **(10 Marks)**
    b. Explain the reflection architectural pattern and its known uses. **(10 Marks)**

7   a. Enlist the benefits of whole – part pattern. **(04 Marks)**
    b. Discuss the structure, dynamics and implementation of Master – Slave pattern. **(10 Marks)**
    c. List the known uses and liabilities of proxy pattern. **(06 Marks)**

8   a. Explain ADD and its steps. **(07 Marks)**
    b. What are views? How they serve the architecture, with examples. **(06 Marks)**
    c. List the steps in documenting a view for architecture. **(07 Marks)**

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