06CS/IS72

Seventh Semester B.E. Degree Examination, June/July 2011
Software Architecture

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions, selecting atleast TWO questions from Part – A and Part - B.*

PART - A

1   a. With the help of a neat block diagram of ABC (Architecture Business Cycle), explain in detail the different activities which are involved in creating a software architecture.
(10 Marks)

b. Enumerate and explain in detail the different groups software architecture structures are categorized into, with the help of appropriate pictorial descriptions. **(10 Marks)**

2   a. Discuss the importance and advantages of the following architectural styles with reference to an appropriate application area. **(08 Marks)**

b. List out the design considerations for mobile robotics case study. With the help of the design considerations, evaluate the pros and cons of the layered architecture and implicit invocation architecture for mobile robots. **(12 Marks)**

3   a. With the help of appropriate diagrams, explain the availability scenario and testability scenario in detail. **(12 Marks)**

b. Briefly discuss the various types of dependencies that one module can have on another which forms the basis for prevention of ripple effect. **(08 Marks)**

4   a. Discuss the 3 – part schema which underlies the layers Architectural patterns, with reference to networking protocols. **(14 Marks)**

b. Briefly explain the benefits offered by the pipes and filters pattern. **(06 Marks)**

PART - B

5   a. Give detailed explanation on the different steps involved in the implementation of the broken pattern. **(15 Marks)**

b. Propose the description of a scenario that depicts the dynamic behavoiur of MVC in detail. Support the description with appropriate pictorial representation. **(05 Marks)**

6   a. Discuss on the benefits and liabilities offered by Microkernel pattern. **(10 Marks)**

b. Give detailed explanation on the different known applications offered by the reflection pattern. **(10 Marks)**

7   a. Enumerate with explanation the different steps, which constitute the implementation of the whole part structure for a CAD system for 2D modeling. **(14 Marks)**

b. Briefly comment on the different steps carried out to realize the implementation of the proxy pattern. **(06 Marks)**

8   a. Briefly explain the different steps performed while designing an architecture using the ADD method. **(10 Marks)**

b. Write short notes on : i) Forming team structures   ii) Documenting across views
iii) Documenting interfaces. **(10 Marks)**

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