

**R09**

**Code No: C5807**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD  
M.TECH I - SEMESTER EXAMINATIONS, APRIL/MAY-2012  
SOFTWARE ARCHITECTURE AND DESIGN PATTERNS  
(COMPUTER SCIENCE AND ENGINEERING)**

**Time: 3hours**

**Max. Marks: 60**

**Answer any five questions  
All questions carry equal marks**

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- 1.a) How does the nature of your organization affect the architectures that it develops? How do the architectures affect the nature of the organization?
- b) Software architecture is often compared to building architecture. What are the strong points of this comparison? What is the correspondence in buildings to software architecture structures and views to patterns? What are the weaknesses of the comparison? When does it break down?
2. Define software architecture. How this definition supports our acid test of an architecture? Does it abstract information away from the system and yet provide enough information to be a basis for analysis, decision making, and risk reduction?
3. What are the different phases of ATAM? Give their characteristics.
4. Suppose a company builds two similar systems using a large set of common assets, including an architecture. Clearly these two systems form a product line. If they shared only an architecture but no elements, would they still be a product line. Suppose they shared only a single element. Suppose that all they shared was the same operating system and programming language runtime libraries. Suppose that the shared asset was the team of developers. Would they be a product line then?
5. Explain the implementation of the Factory method and adapter pattern.
6. Give Quality Attribute Scenarios of software architecture.
7. Describe in detail about template method in class behavioral.
8. Explain case study in interoperability on World Wide Web.

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