

**B.E. 2008 (Computer Engineering)
Software Architecture
(Elective -I) (Semester - I)**

Time: 3 Hours

Max. Marks : 100

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate answer books.
- 2) Answer(Q1 or Q2) and (Q3 or Q4) and (Q5 or Q6) from section I .
- 3) Answer(Q7 or Q8) and (Q9 or Q10) and (Q11 or Q12) from section II .
- 4) Neat diagrams must be drawn wherever necessary.
- 5) Figures to the right side indicate full marks.
- 6) Assume Suitable data if necessary

SECTION I

- Q1) a) What is software Architecture? With diagram explain Architecture Business Cycle. [10]
b) Explain various software architecture Structures. [8]

OR

- Q2) a) "Architectures are influenced by stake holders", Explain in detail [8]
b) How is software architecture different from software design? [5]
c) Explain 4+1 view architecture. [5]
- Q3) a) What is quality attribute scenario? Using diagram list and explain parts of quality attribute scenario. [6]
b) Explain tactics for fault detection. [6]
c) Explain any two quality attributes in brief. [4]

OR

- Q4) a) Explain testability tactics. [8]
b) With scenario explain performance and usability quality attributes [8]
- Q5) a) Define Design pattern. What are the types of design patterns? Explain in brief. [8]
b) Explain Abstract Factory pattern with intent , structure and example. [8]

OR

- Q6) a) What is mediator pattern? Explain using example. [8]
b) Give structure of Façade. Explain with real life example. [8]

SECTION II

- Q7) a) Explain role of middleware in 3-tier architecture. [6]
b) Explain EJB components and interfaces. [6]
c) What is socket ? Enlist and explain different classes used in Java for socket programming. [6]

OR

- Q8) a) Explain in brief various components of J2EE. [8]
b) Write note on application server. [6]
c) Write note on XML. [4]
- Q9) a) Explain various technologies available to develop client side. [8]
b) Explain n-tier web architecture. [8]

OR

- Q10) a) Explain following - [8]
i) XML DOM
ii) ActiveX controls

- Q11) b) Write note on HTML . Differentiate between HTML and DHTML. [8]
a) With neat diagram explain MVC. Also explain how it is supported by Java. [8]
b) What is Service Oriented Architecture. [8]

OR

- Q12) a) Explain servlet life cycle. [8]
b) Write note on following [8]
i) JSF
ii) JSP