[5154]-204

B.E. (Information Technology)
SOFTWARE ARCHITECTURE
(2008 Pattern) (Semester - II) (Elective - III)

Time : 3 Hours]   *[Max. Marks :100*

Instructions to the candidates:

1) *Answer three Que. from Section I and three Que. from Section II.*
2) *Answers to the two sections should be written in separate answer books.*
3) *Figures to the right indicate full marks.*
4) *Make suitable assumptions wherever relevant and appropriate.*

SECTION-I

Q1) a)   Explain in details Software Structures.   **[10]**

b)   Explain with suitable example: **[8]**

     i)   Architecture is high - level design.

     ii)   Architecture is the overall structure of the system.

     iii)   Behavior of each software element is part of the architecture.

     iv)   Architecture has component & connectors.

OR

Q2) a)   Explain Architecture Business Cycle activites in detail.   **[10]**

b)   How Architectures are influences by stakeholders?   **[8]**

Q3) a)   Write short note on follwoing: **[8]**

     i)   Modifiability Tactics   ii)   Security Tactics

b)   What is Quality Attributes? Explain quality attributes of web application?**[8]**

OR

Q4) a) Following concern in context of modifiability: "when is a change made and who makes it". **[8]**

b) What is Availability? Discuss availability tactics for Fault detection. **[8]**

Q5) a) What can a Facade pattern do for us, Illustrate with an example. **[8]**

b) Write a short note on model View Controller (MVC) and its application? **[8]**

<div align="center">OR</div>

Q6) a) How observer pattern can be used to design a digital and an analog clock. Explain with the structure and behavior? **[8]**

b) What are design patterns, why do we need them, give an example design pattern? **[8]**

<div align="center">

SECTION-II

</div>

Q7) a) Explain three -tier architecture with reference to presentation, business and persistence layers. **[10]**

b) Write short note on following: **[8]**

    i) Coupling in XML.

    ii) Loose coupling.

<div align="center">OR</div>

Q8) a) Compare Different architecture styles. **[10]**

b) Explain concept of: **[8]**

    i) Structure of XML

    ii) Addressing quality attributes through multi tire architecture.

Q9) a) Write short note on following: **[8]**

    i) JSP   ii) JSF

    b) Explain with example and advantages of **[8]**

        i) Web Server

        ii) Application Server.

<p align="center">OR</p>

Q10) a) Compare and contrast EJB 2.0 and EJB 3.0 **[8]**

    b) Explain with example: **[8]**

        i) Entity Beans

        ii) Session Beans

Q11) a) What kind of responsibilities does a web client have? How can one make web client more dynamic. **[8]**

    b) Write Short note on **[8]**

        i) Components and Interfaces

        ii) Dynamic Link Library

<p align="center">OR</p>

Q12) a) Explain DLL Servers in detail **[8]**

    b) Write short note on following: **[8]**

        i) NET web services

        ii) Legacy Application

<p align="center">ॐॐॐॐ</p>