SEAT No. :

P3706

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

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

Instructions to the candidates:

1)   *Answer three Que. from Section I and three Que. from Section II.*

2)   *Answer 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)   Define the given term/concept and give examples.   **[10]**

     i)   Software architecture

     ii)   Stakeholders in architecture.

   b)   Explain Architecture Business Cycle activities in detail.   **[8]**

OR

Q2) a)   How the collaboration can be used to model the system of components and connectors.   **[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.

Q3) a)   Explain Templates for documenting interfaces.   **[8]**

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

OR

Q4) a)   Write short note on following: **[8]**

     i)   Modifiability Tactics.

     ii)   Security Tactics.

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

Q5) a) Describe Abstract Factory pattern with respect to intent, application and solution. **[8]**

b) With structure explain observer pattern. Give examples of the same. **[8]**

OR

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

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

SECTION - II

Q7) a) Compare Different architecture styles. **[10]**

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

i) Loose coupling.

ii) Addressing quality attributes through multi tire architecture.

OR

Q8) a) Explain three tire architecture with reference with to presentation, business and persistence layers. **[10]**

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

i) Coupling in XML.

ii) Structure of XML.

Q9) a) Compare and contrast EJB 2.0 EJB 3.0. **[8]**

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

i) JSP

ii) JSF

OR

*Q10)*a)   Explain with example and Advantages of   **[8]**

   i)   Web Server

   ii)   Application Server

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

   i)   CGI

   ii)   Application Server

*Q11)*a)   Explain DLL Servers in detail.   **[8]**

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

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

*Q12)*a)   Describe .NET Architecture. What is role of CLR, CLS, CTS and CLI
        in it?   **[8]**

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

   i)   .NET web services

   ii)   Legacy Application

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