[4959]-194

B.E. (Information Technology)
b: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)   Define the given term/concept and give examples.   **[9]**

   i)   Software architecture

   ii) Stakeholders in architecture

   b)   Explain in details ramifications of influences on an Architecture.   **[9]**

OR

Q2) a)   What are the points which makes Good Architectures?   **[9]**

   b)   How the collaboration can be used to model the system of components and connectors.   **[9]**

Q3) a)   Explain and illustrate the following concepts (in context of quality attributes) with example:

   i)   Quality Attribute Scenarios

   ii) Availability Scenarios   **[8]**

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

OR

P.T.O.

Q4) a) What is Quality Attributes? Explain quality attributes of web application?

   [8]

   b) Give scenario for Security and Testability quality attribute.   **[8]**

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

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

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

Q6) a) Write a short note on Model View Controller (MVC) and its application?

   [8]

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

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SECTION - II

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Q7) a) Compare Different architecture styles.   **[9]**

   b) Write short note on following: **[9]**

   i) Coupling in XML.

   ii) Loose coupling.

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

Q8) a) Explain three tire architecture with reference to different layers.   **[9]**

   b) Explain concept of: **[9]**

   i) Structure of XML

   ii) Addressing quality attributes through multi tire architecture.

Q9) a) What do you understand by the three types of EJB beans, Explain with Examples **[8]**

      i)   Entity Beans

      ii)   Message Beans

      iii) Session Bean

      iv) Use of EJB in three-tier architecture.

  b) Draw a neat J2EE architecture diagram showing different technologies from SUN like (JDBC, JMS) What is the advantage of J2EE architecture? **[8]**

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

Q10) a) Explain Web Server in detail with example. **[8]**

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

Q11) a) Describe .NET Architecture. What is role of CLR, CLS, CTS and CLI in it? **[8]**

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

      i)   Components and Interfaces.

      ii)   .Net Remoting

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

Q12) a) What kind of responsibilities does a web client have? How can one make web client more dynamic. **[8]**

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

      i)   NET web services

      ii)   Legacy Application

<p align="center">✗   ✗   ✗</p>