

Total No. of Questions : 12]

SEAT No. :

P2022

[Total No. of Pages : 3

[5254]-194

B.E. (Information Technology)

SOFTWARE ARCHITECTURE

(2008 Pattern) (Elective - III) (Semester - II)

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 **[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)** Write short note on following: **[8]**
- i) Modifiability Tactics
 - ii) Security Tactics
- b)** What is Quality Attributes? Explain quality attributes of web application? **[8]**

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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) 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) With structure explain Singleton pattern. Give examples of the same [8]
b) Write a short note on Model View Controller (MVC) and its application? [8]

SECTION - II

- Q7)** a) Explain three-tier architecture with reference to presentation, business and persistence layers. [10]
b) Explain the concept of [8]
i) Loose Coupling.
ii) Addressing Quality attributes through multi tier architecture.

OR

- Q8)** a) Compare different architecture styles [10]
b) Write short note on [8]
i) Coupling in XML.
ii) Structure of XML

- 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

OR

- 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

OR

- Q12)**Short Notes on [16]
i) .NET web services
ii) .NET Remoting
iii) .NET assemblies
iv) Legacy Application

