

Total No. of Questions : 12]

SEAT No. :

P804

[4659] - 217

[Total No. of Pages : 3

B.E.(IT)

SOFTWARE ARCHITECTURE

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

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer Question 1 or 2, 3 or 4 and 5 or 6 from Section - I and Question 7 or 8, 9 or 10 and 11 or 12 from Section - II.*
- 2) Answers to the two sections should be written in separate answer books.*
- 3) Neat diagrams must be drawn wherever necessary.*
- 4) Figures to the right indicate full marks.*
- 5) Assume suitable data, if necessary.*

SECTION - I

- Q1) a)** Define the given term/concept and give examples. **[6]**
- i) Software architecture
 - ii) Stakeholders in architecture.
- b) Write short note on documenting software architecture. **[4]**
- c) Explain Architectural Business Cycle (ABC) in detail. **[8]**

OR

- Q2) a)** How Architectures are influenced by stakeholders? **[6]**
- b) What do you understand by components and connectors? **[4]**
- c) How the collaboration can be used to model the system of components and connectors. **[8]**
- 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)** What is Availability? Discuss availability tactics for Fault detection. **[8]**
- b) What is Quality Attributes? Explain quality attributes of web application? **[8]**

P.T.O.

- Q5)** a) What are design patterns, why do we need them, give an example design pattern? [8]
- b) Describe Abstract Factory pattern with respect to intent, application and solution. [8]

OR

- Q6)** a) Write a short note on Model View Controller (MVC) and its application? [8]
- b) How observer pattern can be used to design a digital and an analog clock. Explain with the structure and behavior? [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) 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) Compare and contrast EJB 2.0 and EJB 3.0 [8]

OR

Q10)a) Draw a neat J2EE architecture diagram showing different technologies from SUN like (JDBC, JMS) What is the advantage of J2EE architecture? [8]

b) Explain with example and Advantages of [8]

i) Web Server

ii) Application Server

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

