

Total No. of Questions : 12]

SEAT No. :

P852

[Total No. of Pages : 2

[4458] - 804

B.E. (Information Technology) (Semester - II)

SOFTWARE ARCHITECTURE

(2008 Course) (Elective - III (b))

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) *Answer three questions from Section - I and 3 questions 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) What is software architecture? Explain with example. How do the architectures affect the nature of the organization? [10]
b) Explain Architecture Business Cycle activities in detail. [8]

OR

- Q2)** a) Why Software architecture is important? Explain architecture pattern references, models and reference architectures. [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 and illustrate the following concepts (in context of quality attributes) with example: [8]
i) Measuring and specifying performance for a web site.
ii) Usability aspects observed by you in a typical MS WINDOWS desktop software. (Hint : MS WORD/IE7)
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) Give scenario for performance and usability quality attribute. [8]

P.T.O.

- Q5)** a) What is design pattern? Explain design pattern template in detail. [8]
 b) With structure explain observer pattern. Give examples of the same. [8]
- OR
- Q6)** a) What can a Mediator pattern do for us, Illustrate with an example. [8]
 b) Explain when proxy pattern can be used? With example explain types of proxy. [8]

SECTION - II

- Q7)** a) Compare Different architecture styles. [10]
 b) Write short note on following: [8]
 i) Coupling in XML.
 ii) Structure of XML.

OR

- Q8)** a) Explain three tire architecture with reference with to presentation, business and persistence layers. [10]
 b) Explain concept of: [8]
 i) Loose coupling.
 ii) Addressing quality attributes through multi tire architecture.

- Q9)** a) Explain EJB Architecture in detail. Describe entity, Session and Message beans in detail. [8]
 b) Write short note on following: [8]
 i) JSP.
 ii) JSF.

OR

- Q10)** a) Explain Application server in detail with example. [8]
 b) Explain with example: [8]
 i) CGI.
 ii) Application Server.

- Q11)** a) Explain DLL Servers in detail. [8]
 b) Write short note on following: [8]
 i) Components and Interfaces.
 ii) DLL.

OR

- 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 assemblies.
 ii) .NET remoting.

