

**Note: Objective part is compulsory. Attempt any four questions from subjective part.**

**Objective Part    (Compulsory)**

**Q.1:** write short answers of the following in 2-3 lines each on your answer sheet. (2\*16)

- i. Write the types of J2EE clients?
- ii. Write down benefits of J2EE platform.
- iii. Why we say that Mobility is a challenge for developing Enterprise Systems?
- iv. Why it is appropriate to store State in Session Beans instead of HttpSession, Explain it with diagram?
- v. What kind of Business Logic is required for Entity Bean?
- vi. Create diagram of 3-Tier architecture, explain it briefly?
- vii. Differentiate between web-tier and presentation tier.
- viii. What is the role of middleware in 3-Tier architecture and which tier is used as middleware?
- ix. Give a comparison between CGI and Servlets.
- x. What is Xpath document?
- xi. Give the names of XML web services?
- xii. Enlist the controls of Server Validation?
- xiii. How browser clients connect to a J2EE Application over a web?
- xiv. What kind of HTTP request does the `<a href = "url">test</a>` generates?
- xv. Where we can specify configuration at development time?
- xvi. Why J2EE is more popular among application server and EIS vendors?

**Subjective Part    (12\*4)**

**Q. 2:** Write on the J2EE platform Benefits.

- Scalability to meet demand variations.
- Flexible security model.

**Q. 3:** Explain J2EE Architecture Approaches.

**Q. 4:** Write on design issues and guidelines for Java Clients?

**Q. 5:** Explain the types of Enterprise JavaBeans Tier Transactions.

**Q. 6:** What are Entity Beans? What are guidelines for using Entity Beans?

**Q. 7:** Describe in detail web-tier MVC view design.