B.E. (Computer Science & Engineering) Seventh Semester (C.B.S.)

Elective - II : Software Architecture

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Notes :   1.   All questions carry marks as indicated.
          2.   Solve Question 1 OR Questions No. 2.
          3.   Solve Question 3 OR Questions No. 4.
          4.   Solve Question 5 OR Questions No. 6.
          5.   Solve Question 7 OR Questions No. 8.
          6.   Solve Question 9 OR Questions No. 10.
          7.   Solve Question 11 OR Questions No. 12.
          8.   Due credit will be given to neatness and adequate dimensions.
          9.   Assume suitable data whenever necessary.
          10. Use of non programmable calculator is permitted.

1. a) Define software process. What are the activities include in software Architecture? Explain   **7**
            in detail.

        b) Write short note on Scalability and interoperability issues.   **3**

        c) Why software architecture is important? Explain.   **3**

OR

2. a) Explain in detail block diagram of software architecture.   **7**

        b) How analysis of software architecture is performed?   **3**

        c) Enlist the different architectural patterns.   **3**

3. a) What are the different quality attributes? Explain each in detail.   **7**

        b) What is the need of quality attributes in software architecture?   **6**

OR

4. a) Explain the process of achieving quality attributes.   **6**

        b) What are the six characteristics of a scenario for quality attribute specification.   **7**

5. Explain Behavioral Design patterns in detail.   **13**

OR

6. a) Write short note on Singleton pattern.   **3**

        b) Explain software Architecture and maintenance management.   **5**

        c) Suggest different principles of design patterns.   **5**

7.	a)	Explain web services architecture & its elements in detail.

7. a) Explain web services architecture & its elements in detail. **7**

   b) What are the basic properties of Architectural styles. **3**

   c) Enlist the benefits of using styles. **4**

OR

8. Write short note on **any two**. **14**

   i) Decentralized Architectures.

   ii) Service – oriented Architecture.

   iii) Conventional Architectural styles.

   iv) Network – based applications architectures.

9. a) Enlist different components of Middleware along with their features. **7**

   b) Write short note on COTS. **3**

   c) What are the different system qualities for Middleware. **4**

OR

10. a) Explain in detail the architecture of Middleware. **7**

   b) Write shorts notes on: **7**
   i) Programming models.
   ii) Economics – Driven Architecture.

11. a) Give overview of Three-tier web architecture. **6**

   b) Explain the need of client – side technology in multi-tier architecture. **7**

OR

12. Write short notes no **any three**. **13**

   i) Common Gateway Interface (CGI)

   ii) Servlet.

   iii) DOM

   iv) Applet

   v) AJAX.

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