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**B.TECH.**  
**(SEM VII) THEORY EXAMINATION 2022-23**  
**SERVICE ORIENTED ARCHITECTURE**

Time: 3 Hours

Total Marks: 100

**Note:** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A****1. Attempt all questions in brief.****2 x 10 = 20**

- (a) What is Micro service Architecture?
- (b) Define Contemporary SOA.
- (c) What is SOA reference Architecture?
- (d) What is SOAD?
- (e) Define the Orchestration in web services.
- (f) Write the strategic architecture governance.
- (g) What is the principle of service orientation?
- (h) List the goals of service-oriented analysis.
- (i) What are the types of derived business services and benefits?
- (j) Describe the technology for Big Data.

**SECTION B****2. Attempt any three of the following:****10x3 = 30**

- (a) Describe service layer Abstraction in SOA.
- (b) Compare between :SOA and Client server architecture and Distributed Internet Architecture
- (c) Write a short note on:
  - (i) Orchestration in web services
  - (ii) Security specification used in SOA
- (d) Explain the SOA reference architecture.
- (e) Explain the design of Business process services.

**SECTION C****3. Attempt any one part of the following:****10x1 = 10**

- (a) What are SOAP and WSDL? Explain its importance in web service communication.
- (b) What is SOA Governance? Explain its challenges faced while using SOA Governance.

**4. Attempt any one part of the following:****10x1 = 10**

- (a) Explain different component of SOA and their functionalities.
- (b) Explain different messaging pattern used in SOA with relation of SOAP.

**5. Attempt any one part of the following:****10x1 = 10**

- (a) What are the features of contemporary SOA? Also state common pitfall of SOA.
- (b) Explain different messaging patterns used in SOA with relation of SOAP.

**6. Attempt any one part of the following:****10x1 = 10**

- (a) Explain service activity structure in web service.
- (b) Describe task centric business service design with example.

**7. Attempt any one part of the following:****10x1 = 10**

- (a) How native web service support for service orientation principles?
- (b) Explain metadata. Write its importance in WSDL.