

SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES
(AUTONOMOUS)
Murukambattu, Chittoor

MCA DEPARTMENT



QUESTION BANK

For

24MCA214B-Service Oriented Architecture– 2025

Academic Year 2025-2026

Prepared by

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UNIT I – Introduction to SOA		
Fundamentals of SOA-Evolution of SOA: A SOA Timeline-Continuing Evolution of SOA. Service Oriented Business & Government-SOA Architecture Concepts-Service Governance, Processes, Guidelines, Principles, Method & Tools-Key Service Characteristics-Technical & Business Benefits of SOA		
PART -A		
Q. No.	Questions	Blooms Taxonomy Level
1	Define SOA?	R
2	List out the Standardized Communication Protocols?	R
3	What are the fundamentals in SOA?	U
4	Difference b/w Service oriented Business and Service oriented Government?	AN
5	Define Service Governance?	R
6	What are the methods or techniques used in SOA?	A
7	List out the Tools used in SOA?	R
8	What are the Principles followed by SOA?	U
9	What are the Benefits of SOA?	E
10	Define Processes in SOA with Example?	C
11	Explain the components in SOA briefly?	U
PART –B		
1	Explain about SOA with example? What are the Standardized Communication Protocols used in SOA?	U,R
2	In what ways has the concept of SOA transformed throughout its history?	AN
3	Explain about the Fundamentals of SOA?	U
4	Differentiate b/w the Service oriented Business & Service oriented Government?	AN
5	How does the government plan to continue leveraging SOA for future technological advancements?	E
6	Explain about the SOA Architecture Concepts & Define its Characteristics?	U
7	What is the role and significance of Service Governance in SOA?	E
8	What is the role of Processes in SOA?	U
9.	What are the key Guidelines & Principles that govern the design and implementation of services in SOA?	A
10.	What are the some common methods and tools used in SOA?	R
11.	What are the Technical Benefits of SOA? Explain with Examples?	E

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12.	What are the Components of SOA? OR Describe the Functional & Quality of Service Aspects briefly in SOA?	U,A
UNIT II – SOA & Web Services		
The Web Service Platform-Service Contract-Service Level Data Model-Service discovery-Service Level Integration Process-Atomic & Composite Service-A Retrospective on SOA		
PART -A		
1	What is web service platform?	U
2	List out any 5 key components of a web services?	R
3	What is service contract?	U
4	What is the use of service level data model?	A
5	How Service Discovery works?	U
6	Define Service Level Integration Process?	U
7	Differentiate b/w Atomic & Composite Service?	AN
8	Illustrate the Retrospective on SOA?	E
PART –B		
1	What are the some popular web service platforms, and what are their key features?	R
2	What are the key components of a web service platform in SOA?	R
3	How does the choice of a web service platform impact the development and deployment of services in SOA?	R
4	What is a service contract in the context of SOA, and why is it important?	U
5	How does a service contract define the interaction between service providers and consumers?	A
6	What is a service level data model, and how does it contribute to service design in SOA?	U
7	Why is service discovery important in a Service-Oriented Architecture?	U
8	What are the some methods or technologies used for service discovery in SOA?	R
9	What does the service level integration process involve in SOA?	U
10	What is the difference between an atomic service and a composite service in SOA?	AN
11	What are the some advantages and disadvantages of using SOA in modern software development?	E

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UNIT-III SOA & WEB SERVICE FOR INTEGRATION, SOA & MULTI CHANNEL ACCESS		
SOA & Web Service for Integration : Overview of Integration-Integration & Interoperability using XML & Web Service-Two approaches for using XML & Web Services for integration & Interoperability-Appling SOA & Web Services for Integration-Enterprise Service Bus Pattern. SOA & Multi Channel Access: Business Benefits-SOA for Multi Channel access-Presentation TierChannel Access Tier-Communication Infrastructure-Business Service access Tier-Business Service Tier.		
PART -A		
1.	What is Enterprise Integration S/W?	U
2.	List out the key features of EIS?	R
3.	Provide any two common business drivers for integration ?	R
4.	What are the common technical challenges faced during integration?	AN
5.	Define SOAP and WSDL?	R
6.	Namely provide the 2 approaches to define the web service?	R
7.	Illustrate the Multiple web services Technolgies diagram?	C
8.	Differentiate b/w WSI & SOI?	AN
9.	What is ESB?	U
10.	Describe the key elements of ESB?	U
11.	Define Multi channel access?	U
12.	What is channel Access tier?	U
13.	List out the Layers in Multi Channel Access?	R
14.	Define the role of Business Services tier?	U
15.	Define the role of Client/Presentation tier?	U
16.	What is the use of communication infrastructure?	A
PART-B		
1.	What is the significance of Service-Oriented Architecture (SOA) in the context of integration and interoperability?	U
2.	Can you explain the role of XML in the context of web services for integration? How does it contribute to interoperability?	U
3.	Compare and contrast the two approaches for using XML and Web Services in integration. What are the advantages and disadvantages of each approach?	AN
4.	How can SOA and Web Services be applied effectively for integration? Provide examples of scenarios where these technologies are beneficial.	A
5.	Explain the concept of the Enterprise Service Bus (ESB) pattern in the context of integration. How does it facilitate communication between different services?	U
6.	How and why web services will change integration? Or Explain about the common business drivers & technical factors that makes the integration such a hard problem in 1 st place?	E AN
7.	Explain about the types of integration performed at different layers of technology stack?	AN
8.	Explain about the SOAP, WSDL technologies with example?	U
9.	Differentiate b/w the WSI and SOI ?	AN
10.	What are the business benefits of employing Service-Oriented Architecture (SOA) for multi-channel access?	E

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11.	Illustrate the components of SOA for multichannel access with neat diagram?	C
UNIT-IV SOA & Business Process Management, Metadata Management		
SOA & Business Process Management: Basic BPM Concept-Example Business ProcessCombining BPM, SOA & Web Services-Orchestration & Choreography Specification. Metadata Management: Approach to Metadata Management-Metadata Specification-Policy-WS Metadata Exchange		
PART-A		
1.	Define BPM?	R
2.	Illustrate the diagram of basic components of a BPMS?	C
3.	What is the use of Business process layer?	U
4.	Differentiate b/w Orchestration and Choreography?	AN
5.	What is WS-BPEL ?	U
6.	What are the basic tasks for creating WS compositions?	R
7.	Define Metadata with example?	U
8.	What is the use of Naming Conventions?	A
9.	Define Metadata Specifications?	U
10.	What is WS-Addressing?	U
11.	What is WS-Metadata Exchange & how its works?	U
12.	Define WSPL?	R
PART-B		
1.	Define Business Process Management (BPM) and its role in enhancing organizational efficiency.	U
2.	Explain about the basic components of BPMS?	U
3.	Provide an example of a business process and describe how BPM can be applied to streamline and optimize it.	A
4.	Explain how the integration of BPM, SOA, and Web Services can lead to more effective and flexible business solutions.	E
5.	Differentiate between orchestration and choreography in the context of business processes.	AN
6.	Describe the key components of a successful approach to metadata management.	U
7.	Define metadata specification and provide examples of metadata elements commonly used in an IT environment.	R
8.	Explain the role of policies in metadata management and their impact on Web Services.	E
9.	Explain about the WSPL with neat diagram.	C
10.	How does metadata exchange contribute to the seamless integration of services in a distributed environment?	U
11.	Identify and discuss common challenges organizations face in implementing effective metadata management.	AN

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UNIT- V Advanced Messaging & Transaction Processing

Advanced Messaging: Reliable Messaging-Notification. Transaction Processing: Transaction Paradigm-Impact of Web Service for Transaction Protocol & coordination-Transaction Specification

PART-A

1.	Define Reliable Messaging?	R
2.	What are the features of reliable messaging?	R
3.	Name the Technologies or standards provided by reliable messaging?	R
4.	What are the benefits of reliable messaging?	U
5.	Define Notification?	R
6.	What is transaction processing?	U
7.	Define classic two phase commit protocol?	U
8.	Define Transaction Specification?	R
9.	Define Coordination?	R
10.	Illustrate the diagram of Basic coordinator architecture?	C

PART-B

1.	What is reliable messaging in the context of advanced messaging systems?	U
2.	Provide examples of scenarios where reliable messaging are crucial.	A
3.	Can you explain the importance of reliable messaging in real-time communication applications?	E
4.	Explain the usage patterns for Web Service Reliable Messaging in briefly?	U
5.	What are the benefits of reliable messaging?	U
6.	How do notification systems enhance the user experience in messaging applications?	E
7.	Provide examples of scenarios where notifications are crucial.	A
8.	What is transaction processing, and why is it essential in the context of database management?	U
9.	Explain about the impact of web services on transactions?	E
10.	How do web services contribute to transaction protocol and coordination in distributed systems?	AN
11.	What is transaction specification, and why is it crucial in the design of transactional systems?	U
12.	What are the several specifications that has been proposed for transaction processing with web services?	R

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