

VALLIAMMAI ENGINEERING COLLEGE
Department of Information Technology
IT2401 Service Oriented Architecture
QUESTION BANK

UNIT-1

PART-A

1. Define SOA? Nov/Dec-2011
2. How do components in an SOA inter-relate? Nov/Dec-2011
3. How does SOA address the issues that arise in a client-server architecture?
4. How is SOA different from distributed internet architecture?
5. Give any 2 differences between service orientation and object orientation.
6. Define application architecture.
7. Define enterprise architecture.
8. List any 4 characteristics of SOAs.
9. Mention the concrete characteristics of SOA.
10. List the components of automation logic.
11. Define service.
12. How components in an SOA inter-relate? Represent it diagrammatically.
13. List any 4 principles of service orientation.
14. What do you mean by loose coupling?
15. What does contemporary SOA represent?
16. Define a process.
17. What do you mean by the term “separation of concerns”?
18. What are the core principles that form the baseline foundation for SOA?
19. What is a service contract?
20. What are the 2 types of autonomy?
21. What is the principle behind service interface –level abstraction?
22. Define application architecture
23. List any 4 characteristics of SOAs
24. What are the conditions under which the web service takes the role of a service provider?
25. What is a service contract?
26. Define the term service composition.
27. How components in an SOA inter-relate? Represent it diagrammatically
28. How does SOA address the issues that arise in client-server architecture?
29. What are the 2 types of autonomy?
30. Mention the concrete characteristics of SOA

PART-B

1. Explain the common Principles of service Orientation in detail. Nov/Dec-2011
2. Compare SOA to Client-server and Distributed Architecture. Nov/Dec-2011
3. For each of the architectural models, explain the following aspects-application logic, application processing, technology, security and administration-Client-server architecture
4. Distributed internet architecture and compare them with SOA.
5. Give a comparative study of service orientation with object orientation.
6. List the characteristics of contemporary SOA.
7. What are the components of SOA? How do they inter-relate?
8. Explain in detail the principles of service orientation.
9. Explain briefly about primitive SOA .
10. Explain in detail the characteristics of SOA
11. Compare and contrast Service Orientation with Object Orientation

12. Explain the Principles of Service Orientation in detail
13. Explain the following
 - I. Common misperceptions about SOA (5)
 - II. Common tangible benefits of SOA (5)
 - III. Common pitfalls of adopting SOA
14. Explain briefly about Client- Server Architecture and
15. Distributed Internet Architecture

UNIT-2

PART-A

1. What are Wrapper Services? Nov/Dec-2011
2. Compare Abstract and Concrete description. Nov/Dec-2011
3. What are the design classifications of web services?
4. What are the conditions under which the web service takes the role of a service provider?
5. Define the term service provider.
6. What are the conditions under which the web service takes the role of a service requestor?
7. Define the term intermediaries.
8. What are types of intermediaries?
9. Define the term service composition.
10. How do you classify services based on service models
11. How are the business services used within SOA?
12. Define service endpoint.
13. What do you mean by a service contract?
14. Mention the SOAP nodes that are available.
15. What are the variations of fire and forget message exchange?
16. What are the services that a coordinator composition consists of?
17. What are the atomic transaction protocols that are available?
18. Why orchestration is called “the heart of SOA”?
19. Distinguish between orchestration and choreography.
20. What are the issues to be addressed by service layer abstraction?
21. What are the business service models that business service layer offers?
22. What is the role of orchestration service layer?
23. List the 4 MEPs in WSDL 1.1
24. Mention the SOAP nodes that are available
25. Define service activity
26. What are the factors related to the complexity of an activity?
27. What do you mean by ACID?
28. What are the three layers of abstraction for SOA?
29. What do you mean by the term hybrid services?

PART-B

1. Discuss about three Service layers in detail. Nov/Dec-2011
2. Explain the importance of messaging with SOAP and message exchange patterns in web services.(5+5) Nov/Dec-2011
 - ii) Write a note on Atomic Transactions.(6) Nov/Dec-2011
3. Explain Message Exchange Patterns in detail (16)
4. Explain Messaging with SOAP in detail
5. Explain Service descriptions with WSDL in detail

6. Explain Service Roles and Service Models in detail
7. Explain about Coordination in detail (16)
8. Explain in detail the Atomic Transactions
9. Explain Business Activities in detail
10. Explain Orchestration in detail
 - i. Explain Application Service Layer
 - II. Explain Business Service Layer
 - III. Explain Orchestration Service Layer
11. Explain briefly about Service Oriented Analysis (16)

UNIT-3

PART-A

1. List the Goals of service-oriented analysis. Nov/Dec-2011
2. What is the usage of Envelope element in SOAP message structures? Nov/Dec-2011
3. What are the benefits for incorporating service-orientation into business process level?
4. Define service modeling.
5. What are the objectives of service-oriented analysis?
6. How are the business services derived?
7. What are the types of logic suitable for orchestration layer?
8. What is service modeling?
9. Mention any 2 goals of performing service oriented design.
10. Give the structure of WSDL definition.
11. What is WSDL?
12. Define SOAP.
13. What is the purpose of application-service design?
14. What are the fundamental components of SOA?
15. Give the steps for composing SOA.
16. List any 4 processing demands of a service operation.
17. What are the design concerns for a task-centric business service design?
18. List any 2 goals of performing a service-oriented analysis.
19. Give the structure of SOAP message document.
20. Mention any 4 practical considerations that must be taken into account on deciding what service layer configuration an SOA is to be standardized upon?
21. What is the purpose of entity-centric business service design?
22. Give the structure of SOAP message document
23. What are the 3 types of SOA delivery strategies?
24. Mention the pros and cons of agile strategy
25. Mention any 2 goals of performing service oriented analysis
26. What is meant by Schema element?
27. Which is called as “Heart of SOA”? Why?

PART-B

1. Explain SOA platform and describe the APIs in J2EE which is used to build SOA. Nov/Dec-2011
2. How is service oriented Architecture achieved in .NET platform? Discuss. Nov/Dec-2011
3. Discuss the step by step process of Service modeling in detail.
4. Explain Entity – Centric and Task-Centric business Service design.
5. Explain in detail the steps that comprise a proposed service modeling proc
6. a) What are the benefits for incorporating service-orientation into business

- b) What are the types of derived business services?
7. Write notes on service oriented design process.
8. Give the syntactical implementation of all the elements in WSDL.
9. List out the elements that are present in the structure of a SOAP message document.
10. What are the steps for composing a SOA?
11. Give the step-by-step process for entity-centric business service design.
12. Explain in detail the application service design process.
13. Describe the task-centric business service design process.
14. What are the considerations for positioning core SOA standards?
15. Explain Service Modeling in detail
16. Explain Service Modeling guidelines
17. Explain WSDL Basics
18. Explain the steps in Service Oriented Design

UNIT-4

PART-A

1. What is message processing logic? Nov/Dec-2011
2. What are Dynamic proxy and dynamic invocation interface? Nov/Dec-2011
3. What is JAX-WS?
4. What is JAXB?
5. What are the steps in JAXB?
6. What are the limitations of JAXB?
7. What is JAXR ?
8. What is a registry?
9. What are the parts in JAXR architecture?
10. What does JAX-RPC do ?
11. What are the client invocation methods in JAX-RPC?
12. What is WSIT ?
13. What are the additional features that a WSIT implement to improve security in web services?
14. What are the areas in which interoperability is provided?
15. What do you mean by the term common language runtime?
16. What are the benefits of common language runtime?
17. List the purposes of ASP.NET web forms.
18. What do you mean by WSE?
19. List the components used to build J2EE web applications.
20. What are the advantages with JAX-WS?
21. What does the Java web service developer pack include?
22. What is the difference between RMI and JAX-RPC?
23. What is JAX-WS?
24. What is WSIT?
25. What is a registry?
26. Why is WS-Security needed?
27. What is JAXB?

PART-B

1. Explain JAX-WS technology for building web services and client that communicates using XML. Nov/Dec-2011
2. Explain in detail JAX-RPC programming model. Nov/Dec-2011
3. Describe the function of JAXR in Web service architectural model, the two business registry functionality supported by JAXR, and the function of the objects and how they map to the UDDI data structures.

4. Describe WSIT, the features of each WSIT technology and the standards that WSIT Implements for each technology and how it works.
5. Describe the functions and capabilities of JAXB.
6. How do you build a web form using ASP.NET ?
7. Give the architecture of Web Service Enhancements (WSE) and summarize its major features.
8. Explain briefly SOA support in .NET
9. Write notes on JAX-RPC handlers
10. Give the architecture of Web Service Enhancements (WSE) and summarize its major features
11. Briefly explain SOA platform. How does it support in J2EE
12. Explain briefly about Service agents processing incoming and outgoing SOAP
13. message headers.
14. Discuss about Contemporary SOA support
15. Discuss about J2EE handlers as service agents.
16. Discuss about typical J2EE service provider.
17. Discuss about typical J2EE service requester.
18. Explain briefly about Creating a Simple Web Service and Client with JAX-WS.
19. Explain briefly about JAXB Architecture..
20. Explain briefly about JAXR Architecture.
21. Explain briefly about WSIT.
22. Discuss about .NET handlers as service agents.
23. Discuss about typical .NET service provider.
24. Discuss about typical .NET service requester
25. Explain briefly about CLR.
26. Explain briefly about ASP.NET web services.
27. Explain briefly about Web Services Enhancement.

UNIT-5

PART-A

1. How are the switch.case. and otherwise elements used in WS-BPEL? Nov/Dec-2011
2. What are Policy element and common policy assertions? Nov/Dec-2011
3. What are the elements in WS-BPEL?
4. List the set of basic tasks for creating web service composition.
5. List the set of structured tasks for web service composition.
6. What is a container?
7. What is the fundamental idea behind WS-Coordination?
8. What are the types of WS-Coordination?
9. What is WS-Choreography?
10. What is JAX-RPC? Give two benefits.
11. What are ACID transactions?
12. Define WS-policy.
13. How are switch, case and otherwise elements used in WS-BPEL?
14. Define the Reply activity.
15. List out the stages to develop applications in WS-BPEL
16. Service Orchestration
17. Define the Reply activity.
18. Define WS-Coordination framework
19. List the stages of WS-Coordination
20. List the types of Choreography.
21. Define Abstract Choreography.
22. Define Portable Choreography.
23. Define Concrete Choreography.

24. Define WS-Policy
25. Define Composable Architecture
26. Define Compact Policy Expression
27. Define Policy Expression
28. Define Policy Expression
29. List the Security Threads
30. List the Web Services Security Requirements
31. Define Secure Messaging

PART-B

1. Describe Root element and Series of Common child element of WS-BPEL process definition.
Nov/Dec- 2011
2. Discuss WS- Security language in detail. Nov/Dec-2011
3. Explain WS-BPEL functions.
4. Give the overview of WS-Coordination
5. Describe about the Web Services Enhancements (WSE).
6. Write detailed notes on Common Language Runtime.
7. Write down the syntax of the following with example
 The *process* element
 The *partnerLinks* and *partnerLink*
 The *variable*
 getVariableProperty and *getVariableData*
 sequence and *invoke*
8. Explain the WS- Security language basics
9. Explain briefly about WS-BPEL.
10. Explain briefly about WS-Coordination.
11. Explain briefly about WS- Choreography Model Description
12. Explain briefly about WS- Policy
13. Explain briefly about WS- Security

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