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B.Tech. DEGREE END SEMESTER EXAMINATIONS, APR/MAY 2011

BRANCH: IT (FULL-TIME)

VI SEMESTER – REGULATIONS 2008

IT9351 SERVICE ORIENTED ARCHITECTURE

Time: 3 hrs.

Max.Marks:100

Answer All Questions

Part – A (10X2 = 20 Marks)

1. What are services? Write any two example services.
2. What are the business benefits of SOA?
3. Describe the key components of service oriented model.
4. Explain the role of XML in SOA.
5. Justify the need for multi channel access in SOA.
6. What is BPEL? Explain its uses.
7. How does JAX-RPC differ from Java RMI?
8. What is the technology associated with Java-XML marshalling and XML-Java unmarshalling?
9. List any four meta data associated with web services.
10. What is XML signature? Explain its uses.

PART B (5 X 16 = 80 Marks)

11. (i) Consider a .NET based web service which is capable of providing temperature of a given city. Consider a java based web service which is capable of taking the temperature (t) and displaying the status of that city. (If t > 40 then 'hottest'. If t > 25 then 'hotter'. If t > 15 then 'cool'. If t < 15 then 'chill'. Explain clearly the steps involved in creating the services and consuming the services at a time in a single application. (10)
- (ii) Explain the service level interaction patterns. (6)

12.

- (a) (i) Explain the key characteristics of services in SOA. (8)
- (ii) List the different distributed computing paradigms and highlight their features. (8)

(OR)

- (b) (i) Compare Object oriented paradigm with service oriented paradigm. (8)
- (ii) List the web service specifications supported by W3C and highlight their features. (8)

13.

- (a) (i) Consider a University web site which provides required details for both the faculty members and students. Identify the services associated with this system and explain their interactions. (8)

- (ii) Highlight the features of BPEL. (8)

(OR)

- (b) (i) Explain the layered architecture for providing multi-channel access. (8)
- (ii) What are the basic components of BPMS? Explain. (8)

14.

- (a) (i) Highlight the features of JAXP. (8)
- (ii) Explain the structure of WSDL and UDDI. (8)

(OR)

- (b) (i) Compare synchronous and asynchronous web services with an example. (8)
- (ii) Highlight the features of JAXR. (8)

15.

- (a) (i) Compare the security features of a web application with web services. (8)
- (ii) Explain the various XML based security standards. (8)

(OR)

- (b) (i) Compare the properties of traditional and business (web service) transaction model. (8)
- (ii) Highlight the features of WS-security framework. (8)