Roll No. | | | | | | | | | | |

B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2014

INFORMATION SCIENCE AND TECHNOLOGY

VI Semester

IT9351 SERVICE ORIENTED ARCHITECTURE

(Regulation 2008)

Time: 3 Hours | Answer ALL Questions | Max. Marks 100

PART-A (10 x 2 = 20 Marks)

1. How SOA provides a variety of new strategic solutions to IT world?
2. Are services loosely coupled or tightly coupled? Justify.
3. What are the advantages of an SOA based on Web services?
4. What are the two approaches for using XML and Web services for integration and interoperability?
5. Brief three tiers that are necessary to support an SOA based multi channel access architecture.
6. What is Orchestration and Choreography in Web serivces?
7. What is Valid and well-formed XML?
8. Mention the needs for JAXB.
9. What are UserNameTokens and BinarySecurityTokens?
10. What are the specifications used for transaction processing?

Part – B (5 x 16 = 80 marks)

11. (i) Discuss the important goal of an SOA to align IT capabilities with business goals. Also explain the key elements of a service-oriented architecture. (16 marks)

12. a) (i) Explain elements and principles of service contract (8 marks)
(ii) Brief all common service level interaction patterns for SOA and Web Services. (8 marks)

(OR)

b) (i) List common business drivers for integration and explain why organizations need to invest in SOA with Web services. (8 marks)
(ii) How the Web services messages are mapped between various application, technologies and software systems and give example for interoperability. (8 marks)

13. a) (i) What are the business benefits and architectural challenges of multi channel access? (6 marks)

(ii) Brief BPM components and explain benefits of BPM, SOA and Web services. (10 marks)

(OR)

b) Explain uses of BPEL by composing bank process, tax process and client process with code snippets. (16 marks)

14. a)

(i) Draw and explain JAX-RPC architecture. (6 marks)

(ii) Write a Java program in JAX-RPC to create a web service application to maintain Information about employees (name, emp id., designation, gross pay, deduction from salary, net pay) and display the information by receiving emp id. of employee. (10 marks)

(OR)

b) (i) Explain JAXM with architecture and give code examples. (8 marks)

(ii) Explain JAXR with architecture and give code examples. (8 marks)

15. a) (i) Describe the various metadata and metadata management technologies. (8 marks)

(ii) How metadata technologies fit together to describe a Web service? (8 marks)

(OR)

b) Describe advanced messaging features for "occasionally connected" computing scenarios.

(i) Reliable messaging. (8 marks)

(ii) Event notification. (8 marks)