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Question Paper Code : 91777

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2019

Seventh/Eighth Semester

Computer Science and Engineering

IT 6801 – SERVICE ORIENTED ARCHITECTURE

(Common to : Information Technology)

(Regulations – 2013)

(Also Common to : PTTT 6801 – Service Oriented Architecture for B.E.

(Part-Time) – Seventh Semester – Computer Science and Engineering)

(Regulations – 2014)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. "XML Namespaces provide a method to avoid element name conflicts."
Elucidate.
2. What is an XML schema ?
3. Present an outline of SAX.
4. Outline how to transform XML documents to other types of document ?
5. What are loosely coupled systems in SOA ?
6. Outline the steps in creating XML databases with an example.
7. What is orchestration ?
8. Present an outline of WSDL.
9. What is service composition ?
10. Specify the need of WS-Coordination in WS-I.



PART – B

(5×13=65 Marks)

11. a) What is a well-formed XML document? Create an XML document which contains student register number, name, date of birth, gender and programme admitted. Also define DTD and XSD for the created XML document. (13)
- (OR)
- b) i) Elaborate how namespaces and DTDs relate to one another with an example. (6)
- ii) Elaborate how do schemas refer to other schemas with an example. (7)
12. a) Elaborate the document object model with an example. (13)
- (OR)
- b) Explain the XML parsing using DOM parser with a suitable illustration. (13)
13. a) i) The Web Services architecture is based upon the interactions between three roles. Outline the roles and operations involved in the interactions. (7)
- ii) Outline the benefits of SOA and highlight how SOA differs from client/server and distributed architecture. (6)
- (OR)
- b) What is service orientation? Elaborate the principles of service orientation. (13)
14. a) Outline how SOAP enables client applications to easily connect to remote services and invoke remote methods with an example. (13)
- (OR)
- b) What is UDDI? Elaborate the UDDI architecture. (13)
15. a) What is BPEL? Outline the building blocks of BPEL with an example. (13)
- (OR)
- b) Present an elaborate note on WS Security. (13)

PART – C

(1×15=15 Marks)

16. a) Create an XML schema for a "Library management system". State the functional requirements you are considering. (15)
- (OR)
- b) Outline the steps in building a SOA based application using J2EE. (15)