

**R13**

Code No: 118FD

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year II Semester Examinations, April - 2018****WEB SERVICES****(Computer Science and Engineering)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART - A****(25 Marks)**

- 1.a) Discuss the various building blocks of web services architecture. [2]
- b) Explain the web services operational model. [3]
- c) What is the importance of Faultcode element in SOAP fault? [2]
- d) Define deserialization. [3]
- e) Discuss the limitations of WSDL. [2]
- f) What are the various functionalities provided by WSDL tools? [3]
- g) Explain SOA in brief. [2]
- h) Differentiate between public and private UDDI registries. [3]
- i) What are digital signatures? [2]
- j) Define non-repudiation and integrity. [3]

**PART - B****(50 Marks)**

2. Briefly explain the following:
  - a) Simple Object Access Protocol.
  - b) Web Service Description Language
  - c) Universal Description, Discovery and Integration. [10]
3. Explain the role of J2EE and XML in distributed computing. [10]
4. Explain how SOAP encoding is done for the following with examples:
  - a) Structure types
  - b) Multiple references in Arrays
  - c) Enumeration. [10]
5. Explain how SOAP web services are developed using java with an example. [10]
6. Explain how SOAP binding is done in WSDL with an example. [10]
7. Briefly explain the various structural elements of a WSDL document with an example. [10]

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- 8.a) Discuss the various UDDI specifications.  
b) Explain the various UDDI data structures. [5+5]

OR

9. Explain the following functions in Publishing API:  
a) save\_xx  
b) delete\_xx [5+5]

- 10.a) Explain how is interoperability achieved in web services.  
b) Explain the steps involved in creating a java client for a web service. [5+5]

OR

11. Write short notes on:  
a) Symmetric ciphers.  
b) Asymmetric ciphers.  
c) Digital certificates.  
d) XML encryption. [10]

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