UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, April/May 2018

Course Code: CSIB312

Course: Service Oriented Architecture

Program: B.Tech. OSS/CCVT Semester: VI
Time: 03 hrs. Max. Marks: 100

Instructions: All questions are compulsory and make the necessary diagrams.

SECTION A S. No. Marks Q 1 Describe the basic SOA architecture with labelled diagram. Q 2 Define the needs and benefits of Business Integration process. 4 Q 3 Describe SOA lifecycle and its stages. 4 Q 4 Define the various SOA principles 4 Provide some features and benefits of SOA. Q 5 **SECTION B** Q 6 Illustrate the role of Interface based design in SOA. 10 Q 7 What is the difference between services oriented and component based design? 10 Q 8 Elaborate SOA governance framework and define various key factors of SOA 10 Governance policies. Q 9 Discuss SOA RA architecture with diagrams. 10 SECTION C Q 10 Define Business process execution language (BPEL) and its all core with details and diagrams. OR 20 Define Business process management architecture and BPM Lifecycle with diagrams. Q 11 Describe all the WSDL components with an example of WSDL document and 20 describe the UDDI elements and UDDI architecture in detail.

Name:	UPES
Enrolment No:	OPE3

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SECTION A

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S. No. Marks Q 1 What is a Service Oriented Architecture? Q 2 Which are the challenges involved in implementing SOA? 4 Q 3 Define SOA layered architecture in detail. 4 Q4 How can you achieve loose coupling in a SOA? 4 Describe the business centric entry points into SOA. Q 5 4 **SECTION B** Illustrate the approach of Service Oriented design and its key objectives. Q 6 10 Q 7 Elaborate the publishing and consumption process of a service with diagram. 10 Q8 Define the approach for implementing SOA governance in detail. 10 Q 9 Describe the components and benefits of SOA Governance. 10 **SECTION-C** Q 10 Define Business process management notations (BPMN) with associated examples and diagrams. 20 OR Define Business process management architecture and discuss the relationship between BPM and SOA with diagram. Define the Web Service and its architecture. Describe Web Service standards that are Q 11

commonly used. Implement a weather web service in any platform using the concept

of web services.

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