
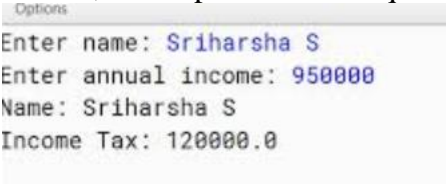


Name:			
Enrolment No:			
<b>UPES</b> <b>End Semester Examination, May 2024</b>			
<b>Course: Service Oriented Architecture and MicroServices</b> <b>Program: B. TECH(CSE+OSOS-H/NH)</b> <b>Course Code: CSEG3032</b>		<b>Semester : 6</b> <b>Time : 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>Instructions:</b> <b>Answer all the questions.</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	List the driving factors for SOA.	4	CO1
Q2	Depict SOA layered architecture.	4	CO1
Q3	Expand the following abbreviations. a)TOGAF b)UDDI c)SOAP d)BPMN	4	CO3
Q4	Differentiate monolithic architecture vs microservices architecture.	4	CO5
Q5	Sketch the microservice architecture with its components.	4	CO5
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q6	Describe the Component-based design with different steps involved.	10	CO1
Q7	Analyze UBER's Microservice Architecture in detail by providing the problem statement and solution applied.	10	CO5
Q8	Considering the below-given operation on calculating the income tax service, develop the SOAP request and response messages. 	10	CO3
Q9	<b>Instruction: Answer 9.a OR 9.b</b> a) Provide the DOM structure of WSDL components and explain them. <p style="text-align: center;"><b>OR</b></p> b) Write the WSDL code for calculator application.	10	CO3

**SECTION-C**  
**(2Qx20M=40 Marks)**

Q10	a) Depict and explain the various stages of SOA lifecycle governance with an example. (10 Marks) b) Identify and explain all the core components of BPMN with suitable examples. (10 Marks)	<b>20</b>	<b>CO2</b>
Q11	<b>Instruction: Answer 11.a&amp;b OR 11.c&amp;d</b> a) Explain the TOGAF framework and its various Domain Architecture of it. (10 Marks) b) Sketch the correlation between the various domains of TOGAF. (10 Marks) <p style="text-align: center;"><b>OR</b></p> c) Discuss the steps to create a RESTFUL microservice using spring boot. (10 Marks) d) Write the code for creating a simple calculator RESTful microservice.(10 Marks)	<b>20</b>	<b>CO4</b>