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**PRESIDENCY  
UNIVERSITY  
BENGALURU**

**School of Computer Science and Engineering**

**Mid - Term Examinations - November 2024**

**Semester:** V

**Date:** 07/11/2024

**Course Code:** CSE3125

**Time:** 02.00pm to 03.30pm

**Course Name:** Service Oriented Architecture

**Max Marks:** 50

**Program:** B.Tech

**Weightage:** 25%

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**Instructions:**

*(i) Read all questions carefully and answer accordingly.*

*(ii) Do not write anything on the question paper other than roll number.*

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**Part A**

**Answer ALL the Questions. Each question carries 2marks.**

**5Qx2M=10M**

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|---|---|---------|---|-----|
| 1 | List and explain the features of xml.     | 2 Marks | L | CO1 |
| 2 | Define XSLT.                              | 2 Marks | L | CO1 |
| 3 | Define Architecture.                      | 2 Marks | L | CO2 |
| 4 | Define Application logic.                 | 2 Marks | L | CO2 |
| 5 | Define Distributed Internet Architecture. | 2 Marks | L | CO2 |

**Part B**

**Answer ALL Questions. Each question carries 10 marks.**

**4QX10M=40M**

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|---|---|--------|----|-----|
| 6 | a. Define the following with suitable examples (i) Root element (ii) Attributes | 2Marks | L1 | CO1 |
|   | b. Differentiate XML and HTML   | 3Marks | L2 | CO1 |
|   | c. Develop an XML document with an internal DTD to define a library system.     | 5Marks | L3 | CO1 |

**Or**

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|---|---|--------|----|-----|
| 7 | a. Define Parser. Explain the types of parsers with examples.                     | 2Marks | L1 | CO1 |
|   | b. Compare DOM and SAX.   | 3Marks | L2 | CO1 |
|   | c. Write an XML document using namespaces to manage different product categories. | 5Marks | L3 | CO1 |

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|----------|---|---------------|-----------|------------|
| <b>8</b> | <b>a.</b> Define (i) Xpath (ii)Xquery   | <b>2Marks</b> | <b>L1</b> | <b>C01</b> |
|          | <b>b.</b> Explain the purpose of the XML declaration                              | <b>3Marks</b> | <b>L2</b> | <b>C01</b> |
|          | <b>c.</b> Develop an XML document for handling student grades using external DTD. | <b>5Marks</b> | <b>L3</b> | <b>C01</b> |

**Or**

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|----------|---|---------------|-----------|------------|
| <b>9</b> | <b>a.</b> List the rules for writing XML element.   | <b>2Marks</b> | <b>L1</b> | <b>C01</b> |
|          | <b>b.</b> Describe the importance of XML schemas.   | <b>3Marks</b> | <b>L2</b> | <b>C01</b> |
|          | <b>c.</b> Design an XML document to manage customer orders using XML Schema for validation. | <b>5Marks</b> | <b>L3</b> | <b>C01</b> |

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|-----------|---|---------------|-----------|------------|
| <b>10</b> | <b>a.</b> With diagram define single tier client server architecture          | <b>2Marks</b> | <b>L1</b> | <b>C02</b> |
|           | <b>b.</b> Explain how services are reusable in service-oriented architecture. | <b>3Marks</b> | <b>L2</b> | <b>C02</b> |
|           | <b>c.</b> List and explain the characteristics of contemporary SOA            | <b>5Marks</b> | <b>L3</b> | <b>C02</b> |

**Or**

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|-----------|--|---------------|-----------|------------|
| <b>11</b> | <b>a.</b> List the components of service-oriented architecture.                                      | <b>2Marks</b> | <b>L1</b> | <b>C02</b> |
|           | <b>b.</b> With an example describe how service-oriented architecture provides service composability. | <b>3Marks</b> | <b>L2</b> | <b>C02</b> |
|           | <b>c.</b> Explain how service orientation principle interrelate with each other.                     | <b>5Marks</b> | <b>L3</b> | <b>C02</b> |

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|-----------|---|---------------|-----------|------------|
| <b>12</b> | <b>a.</b> Define stateless service.   | <b>2Marks</b> | <b>L1</b> | <b>C02</b> |
|           | <b>b.</b> Explain how services abstract underlying logic in SOA.  | <b>3Marks</b> | <b>L2</b> | <b>C02</b> |
|           | <b>c.</b> Can the adoption of SOA lead to cost savings for an organization? Produce examples or scenarios to support your answer. | <b>5Marks</b> | <b>L3</b> | <b>C02</b> |

**Or**

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|-----------|---|---------------|-----------|------------|
| <b>13</b> | <b>a.</b> Define Service Activity.  | <b>2Marks</b> | <b>L1</b> | <b>C02</b> |
|           | <b>b.</b> List and explain different types of architecture.                 | <b>3Marks</b> | <b>L2</b> | <b>C02</b> |
|           | <b>c.</b> Differentiate between service orientation and object orientation. | <b>5Marks</b> | <b>L3</b> | <b>C02</b> |