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| 13CS41E2 | - | SERVICE ORIENTED ARCHITECTURE |

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| Hours / Week | : | 4 |  | Sessional Marks | : | 40 |
| Credits | : | 4 |  | End Examination Marks | : | 60 |

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| **UNIT - I** |
| **Software Architecture**: Types of IT Architecture , SOA – Evolution – Key components , perspective of SOA, Enterprise-wide SOA – Architecture, Enterprise Applications, Solution Architecture for enterprise application ,Software platforms for enterprise Applications , Patterns for SOA , SOA programming models. |
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| **UNIT – II** |
| **Service-oriented Analysis and Design**: Design of Activity, Data, Client and business process services Technologies of SOA ,SOAP ,WSDL ,JAX ,WS ,XML, WS for .NET, Service integration with ESB, Scenario , Business case for SOA , stakeholder objectives, benefits of SPA ,Cost Savings . |
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| **UNIT – III** |
| **SOA implementation and Governance**: Strategy, SOA development, SOA governance, trends in SOA, event-driven architecture, software as service, SOA technologies, proof-of-concept, process orchestration, SOA best practices. |
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| **UNIT – IV** |
| **Meta data management**: XML security, XML signature, XML Encryption, SAML, XACML, XKMS, WS-Security and Security in web service framework, advanced messaging. |
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| **UNIT – V** |
| **Transaction processing**: Paradigm, protocols and coordination, transaction specifications, SOA in mobile. |
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| TEXT BOOKS |
| 1. Understanding SOA with Web Services by Eric Newcomer, Greg Lomow, Pearson Education.
2. Web Services Security by Mark O’ Neill, et al., Tata McGraw-Hill Edition, 2003.
3. Service –Oriented Architecture for Enterprise Applications by Shankar Kambhampaly, Wiley
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