AMSW13 SERVICE ORIENTED ARCHITECTURE

UNIT-1 INTRODUCTION

1.1 Roots of SOA- Characteristics of SOA

1.2 Comparing SOA to client-server and distributed internet architectures- Anatomy of SOA

1.3 How components in an SOA interrelate -Principles of service orientation.

UNIT-2 WEB SERVICE AND SOA

2.1 Web services- Service descriptions- Messaging with SOAP- Message exchange Patterns- Coordination- Atomic Transactions – Business activities

2.2 Orchestration- Choreography - Service layer abstraction

2.3 Application Service Layer- Business Service Layer- Orchestration Service Layer.

UNIT-3 BUILDING SOA

3.1 Service oriented analysis- Business-centric SOA- Deriving business service modeling

3.2 Service Oriented Design- WSDL basics- SOAP basics- SOA composition guidelines

3.3 Entity-centric business service design- Application service design- Task centric business service design.

UNIT-4 SOA PLATFORMS

4.1 SOA platform basics- SOA support in J2EE- Java API for XML-based web services (JAX-WS) - Java architecture for XML binding (JAXB)

4.2 Java API for XML Registries (JAXR)- Java API for XML based RPC (JAX-RPC)- Web Services Interoperability Technologies (WSIT) - SOA support in .NET

4.3 Common Language Runtime- ASP.NET web forms- ASP.NET web services- Web Services Enhancements (WSE).

UNIT-5 SERVICE ORIENTED DESIGN

5.1 WS-BPEL basics- WS-Coordination overview- WS-Choreography, WS-Policy, WS Security.

References Books:

1. Newcomer, Lomow, "Understanding SOA with Web Services", Pearson Education, 2005
2. Sandeep Chatterjee, James Webber, "Developing Enterprise Web Services, An Architect's Guide", Pearson Education, 2005.