Programme: B.Tech. Year: 3th year and 4th Semester: 6th & 8th

**CSE3071 : Active Directory**

Course: Elective Credits: 04 Hours: 40 (with Lab)

**Course Context and Overview (100 words):**

On completion of this course the student should be able to design, install, and administer an enterprise network using Microsoft Windows Active Directory including implementation of Group Policies required to centrally manage users and computers in a large enterprise.

**Prerequisites Courses: Basic knowledge of Networking and Shell programming is preferable.**

**Course outcomes (COs):**

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| **On completion of this course, the students will have the ability to:** |
| CO1: Understand the fundamental concepts of Networking and Operating System. |
| CO2: Understand the basic functionality of AD and issues associated with earlier systems like NT. |
| CO3: Install and use the Active Directory Services. |
| CO4: Create and modify different group polices. |

**Course Topics:**

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| **Topics:** To be covered with the amount of time to be spent on each is presented below: |
| **UNIT - I** |  |
| Introduction to Networking, Protocol layers and service models, Addressing in networks, Sub netting, DNS, Dynamic DNS, Name checking, Security in DNS, Introduction to LDAP, Basics of shell programming | 15 |
| **UNIT - II** | 5 |
| Introduction to Operating system, Understanding Virtual vs. Physical Infrastructure, Configuring Virtual Machine (Hardware and Software), Configuring Virtual Networks and Hyper-V Storage |
| **UNIT - III** | 8 |
| Introduction to Active Directory, The Logical and Physical Structure of Active Directory, Authentication and Authorization Boundaries of Active Directory, Active Directory Searches, Kerberos |
| **UNIT - IV** | 6 |
| Requirements for installing AD DS, Steps for installing AD DS, Steps for uninstalling AD DS, Understanding Active Directory Domain Services Functional Levels, Domain Functional Levels, Forest Functional Levels, Guidelines for raising domain and forest functional levels |
| **UNIT-V** | 6 |
| Managing Groups user and Domain, Active Directory Domains and Trusts, Active Directory Sites and Services, Group Policy Management. Backing Up Active Directory Domain Services, Windows Server Backup Tools, Recovery in Active Directory Domain Services |

**Suggested Reading: Reference Books / Journals:**

1. **http://technet.microsoft.com/en-us/library/dd448614.aspx**

**Evaluation Methods:**

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| Item | Distribution |
| Quizzes and Assignments | 10 |
| Midterm | 20 |
| Final Examination | 40 |
| Lab | 30 |

**Prepared By:**

**Last Update: ­­10/10/2015**