

## Basic Course Modules (Mandatory)-260 hours

### 1. Network Basics & Network Administration

- Fundamentals of networking
- OSI Model & IP addressing concepts
- Subnetting concepts & calculations
- IOS fundamentals
- Introduction to protocols & switches
- Routers & LAN concepts
- Frequently used network commands
- Basics of SMMP
- Introduction to Nat & WAN technologies
- Firewall & Proxy servers basics

### 2. Windows Basics & Windows Server Administration

- Fundamentals of hardware
- Introduction to operating systems & Windows
- Windows server versions & Editions
- Booting concepts & sequence
- Overview of system management & File Systems
- Overview of various installation methods
- Disk, User & Group Management
- Installation and configuration of DNS, DHCP
- System management Tools
- Software installation and management
- Installation & Configuration of active Directory
- Installation & configuration of IIS
- Overview of Distributed file system (DFS) & Disaster recovery
- Troubleshooting techniques

### 3. Unix Basics

- Introduction & History of unix
- Overview & different run level
- Different types of shells

- Fundamental of working on unix systems
- Introduction to filesystems
- Working with files and directories
- File permissions & directories
- Working with VI editor
- Shell basics & its variables
- Using pipes & filters
- Process control and management
- Customizing user environment & unix utilities

### 4. Shell Programming

### 5. Unix system administration

- Introduction to unix system administration
- Overview of booting process & its sequence
- Significance of kernel & System management tools
- System startup & shutdown
- Installation & configuration of I/O devices
- System storage overview
- Managing file repair
- Configuration of secondary memory (Swap/Paging)
- User administration, backup & restore
- Software installation & maintenance
- Performance monitoring & Network file system
- Troubleshooting techniques

### 6. PERL Programming

### 7. Soft Skills - Business Communication

### 8. ITIL Concepts

### 9. Storage Basics & Storage Administration

- Introduction to storage hardware
- Introduction to storage area networks (SAN)
- Concepts of direct access storage (DAS)
- Concepts of network access storage (NAS)
- Concepts of storage area network (SAN)
- Introduction to storage protocols
- Overview & differences among ATA, SATA, SCSI & iscsi
- Overview & different levels of RAID
- Introduction & significance of host bus adapter (HBA)
- Overview of fiber channel (FC) concepts
- FC topologies, FC classes, addressing & services
- Overview of zoning, its types & configuration
- Overview & differences of unipath and multi-path communication
- Overview of in-bound & out-bound communication
- Understanding of LUN & LUN masking
- Concepts of volume group, RAID group & global space
- Overview of various backup methodologies
- Troubleshooting techniques

## Advanced Course Modules (Any ONE) - 100 hours

### Advanced Diploma in AIX & TSM Administration

AIX System administration modules  
 Introduction to Tivoli storage manager (TSM) & its features  
 Overview of TSM architecture, components & interfaces  
 Installation & configuration of TSM server & clients  
 Managing the database & recovery log  
 Installation & configuration of tape library  
 Concepts of storage pools & its types library  
 Concepts of reclamation & collocation  
 Concepts of policy management  
 Concepts of scheduling & different modes  
 Introduction to different backup methodologies  
 Overview & configuration of disaster recovery manager (DRM)  
 Overview & configuration of Tivoli data protection (TDP)  
 Troubleshooting techniques

### Advanced Diploma in Solaris & Veritas

#### NetBackup Administration

Solaris administration modules  
 NetBackup essentials  
 Installing netbackup  
 Configuring devices, storage units, media & policies  
 Netbackup essentials  
 Performing manual backups, restores  
 Media management  
 Performing catalog backups and restores  
 Using netbackup & restore  
 Performance tuning netbackup  
 Troubleshooting techniques

### Advanced Diploma in IBM & EMC Clarion Storage Administration

Introduction to IBM disk storage  
 DS8000 hardware architecture overview & its features  
 System storage logical partitioning  
 Layers of disk virtualization  
 Benefits of disk virtualization & load balancing  
 Host attaching and multipath management  
 Overview of DS-Hardware management console  
 Capacity & license planning  
 Performance monitoring & tuning  
 Flashcopy & DR copy services overview  
 Maintenance and upgrade planning  
 Management of DS8000 using DSCLI, DSGUI, TPC & SSPC  
 Security features of DS8000  
 Hardware overview & software overview  
 Initializing a CX series array  
 Array configuration  
 Storage object configuration & access logix  
 Connecting a windows host  
 EMC powerpath  
 Meta LUNs and LUN migration  
 Solaris integration & event monitor  
 Navishpere Analyzer  
 Troubleshooting techniques

### Advanced Diploma in Windows Cluster & Citrix Admin

Introduction to clusters  
 Preparing to install a failover cluster  
 Overview of failover cluster storage requirements  
 Configuring cluster resources and server roles  
 Maintaining Microsoft failover clusters

Introduction to citrix  
 Accessing the citrix farm  
 Installation & configuration of citrix metaframe  
 Client file security  
 Using thick client  
 Working with licensed applications  
 Working with files in citrix  
 Printer configuration in citrix  
 Troubleshooting techniques

### Advanced Diploma in VmWare Vsphere Administration

Introduction to virtualization  
 Vmware products & Vsphere components  
 Vsphere (ESX4.0) server & client installation  
 Adding hosts to the vcenter server & creating virtual machines  
 Creating templates  
 Cloning the virtual machines  
 Vmware HA & DRS  
 Vnetworking, Vstorage & Vmotion technology  
 Vmware consolidated backup  
 Troubleshooting techniques