



Baluja's Institute of Technology & Management

An ISO 9001:2000 Certified Institute

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Training Details For Computer Hardware & Networking Courses

A+	MCP	MCSE	MCITP	CCNA	CCNP
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Diploma in Computer Hardware & networking	6 Months	Fees- ` 1500/- PM
Advanced Diploma in Computer hardware & Networking	1 Year	Fees- ` 1500/- PM
MCP (70-270 + 70-290)	1 Month	Fees- ` 2000/-
MCSE – 7 papers	2 Months	Fees- ` 10000/-
MCITP	2 Months	Fees- ` 12000/-
CCNA	1 Month	Fees- ` 7500/-
CCNP (Switching + Routing)	2 Months	Fees- ` 15000/-

SPECIAL OFFER
MCSE + CCNA Rs 10000/- (One Time)

DIPLOMA IN HARDWARE & NETWORKING

A+ (HARDWARE) and N+ (NETWORK)

Module 1

Duration: 1.5 Months

1. Introduction to Computer
 - ❖ The Essential parts of any Computer
 - ❖ Point of Failure
 - ❖ Hardware, Software and firmware
 - ❖ Working inside your PC
 - ❖ Hardware Resource
2. Motherboards, Processors and Adapter Card
 - ❖ Motherboards and their components
 - ❖ Process and CPU
 - ❖ Installing Adapter Cards
3. Bios
 - ❖ Understanding Bios, cmos and wave
 - ❖ Configuring the System Bios
 - ❖ Power on Self test and Error Reporting
 - ❖ Bios Update
4. Power Supply
 - ❖ Power Supply
 - ❖ Power Supply Protection Type
 - ❖ UPS
 - ❖ Trouble Shooting Power Problem
5. Ram
 - ❖ Ram Basics
 - ❖ Ram Type
 - ❖ Operational Characteristics
 - ❖ Installing Memory Modules
 - ❖ Trouble Shooting Memory
 - ❖ Preventative Maintenance for Memory
6. I/O and Multimedia Ports and Devices
 - ❖ Understanding I/O Port
 - ❖ Understanding input Devices
 - ❖ Installing Input and Multimedia devices
 - ❖ Firewire port and Cable
 - ❖ Trouble Shooting Input and Multimedia devices
 - ❖ Trouble Shooting I/O Ports
 - ❖ Maintaining Input Devices
7. Video Displays and graphics Cards
 - ❖ Installing Video Card
 - ❖ Display Types
 - ❖ Installing a Monitor
 - ❖ Trouble Shooting Display and Video Card
8. Laptops and Portable Devices
 - ❖ Fundamental feature of Laptop and Portable Devices
 - ❖ Configuring Power Management
 - ❖ Application for Portable and Laptop hardware
 - ❖ Safe Removal of Laptop Diagnostics
9. Printer and Storage Devices
 - ❖ Printing Fundamental
 - ❖ Wifi Printer
 - ❖ Net base Printer
 - ❖ Bar code Machine
 - ❖ Printer and Scanner Control
 - ❖ Print Process
 - ❖ Interface Type
 - ❖ Printer Type and Function Fundamental

- ❖ Laser Printer, Inkjet Printer, JMP Printer and Scanner Working Fundamentals
 - ❖ Floppy Disk Drive
 - ❖ Hard Disk Drive
 - ❖ High Definition
 - ❖ CD and DVD Optical Drive
 - ❖ Removable Storage
 - ❖ Flash memory and Card Reader
 - ❖ USB Flash memory Drive
 - ❖ External Hard Disk
 - ❖ Blue Ray
10. Assembling and De Assembling PC

Module II Duration: 1 Months
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1. Bootable Disk
2. Booting
3. Partitioning & formatting of HDD
4. Installation
 - 98 / 2000/XP / I / Red hat Linux 11
 - Taskbar
 - Desktop
 - Control Pannel
 - Installation of PnP card
 - Installation of Printers.
5. Drivers
6. Softwares
7. Multimedia Kit (Fonts, ClipArt, Joystick, Printer, Scanner)
8. Modem
 - Modem Installation & Configuration
 - Familiarization with E-Mail
 - Installation of E- mail Software's
 - Internet Browsing
 - Searching & Downloading
9. Web Cam
10. TV-Tuner Card
11. VIRUS
 - Study of Computer Virus
 - Study Of Anti- Virus Program
12. Diagonostic Tools
 - Study of diagonostic of components of computers using AMIDIAG, QAPLUS
 - Study of Norton Disk NDD
13. O/S
 - Basics of Windows vista & 7
 - Working with Vista & 7
 - Meet the Control Panel
 - Customized User Accounts
 - Hard Disk Management
 - Managing Hardware
 - Networking Tasks
 - Wireless Networking
 - Internet Explorer 7 and Windows Mail
 - Backup and System Restore
 - Trouble Shooting of Computer
 - Maintaining and Optimizing your Computer
 - Using Windows Defender
 - Remote Desktop and Remote Assistance
 - Windows Live Messenger and Meeting Space
 - Speech Recognition
 - Administrative Tools

Module III (Basic Electronics) Duration: 1 Months
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1 ANALOG

- Soldering
- How to use Multimeter & trainerkit
- Current & Voltage
- Voltage Rise & Voltage Drop
- Inductor & Capacitor
- Using Oscilloscope
- Semiconductor

Diode characteristics

- Half wave rectifier
- Transistor
- Ohm's Law
- Power
- AC Fundamental
- Transformer
- PN junction Diode
- Power Supply
- Full wave rectifier
- Transistor Amplifier

1. DIGITAL

- Logic families & No. System
- No. System Conversion
- Basic Logic Gates
- NAND, NOR & EX-OR Gates
- Universal Gates
- Binary addition & subtraction
- Half Adder & Subtraction
- Boolean Algebra
- K- Maps

Module IV	MCSE	Duration: 2 Months
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- Installing, Configuring and Administering Microsoft Windows XP Professional (70-270)
- Managing and Maintaining a Microsoft Window Server-2003 Environment (70-290)
- Planning, Implementing and Maintaining a Microsoft Window Server 2003 Active Directory Infrastructure.(70-294)
- Implementing and Managing Microsoft Exchange Server 2003 (70-284)
- Planning and Maintaining a Microsoft Window 2003 Network Infrastructure(70-293)
- Designing Win 2003 Active directory and Network Infrastructure (70-297)
- Implementing and Managing Microsoft Exchange Server 2003 (70-284)

Module V	CCNA	Duration: 1 Month
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- Basics of Networking
- OSI Reference Model
- TCP \ IP Model
- IP Addressing & Subnetting
- Configuration of TCP \ IP Network
- Internal Working of HUB, Bridge, Switch and Routers
- Explain the difference between Broadcast, multicast & unicast
- Detailed study of CISCO Devices
- Cabling of CISCO Devices
- Study of Hardware Architecture of CISCO Routers & Switches
- Detailed Study of Catalyst Switching Concepts
- Types of Switches (Layer2 & Layer3 Switches)
- Difference between Layer2 & Layer3 Switches
- Concept of VLANs
- Implementing VLANs
- Connecting VLANs

- Inter-VLAN routing
- Basic working and commands of Routers

----- BALUJA LABS PROPRIOTARY-----

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- Configuring serial & Ethernet Ports
- Configuring IP Static & Dynamic Routing
- Detailed study of RIP, IGRP, EIGRP & OSPF
- Configuring Dynamic Routing using RIP & IGRP
- WAN protocols Description
- Description of Frame Relay, ISDN
- WAN Protocols Configuration
- ISDN configuration
- Securing the Routed Network through the Standard access lists method

Module VI	LINUX
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- Starting with Linux
- Running Commands from the shell
- Getting into the desktop
- Learning Basic Administration
- Getting on the internet
- Securing Linux
- Installing Linux
- Running Fedora Core and Red Hat Enterprise Linux
- Running Debian

Module VII	NETWORK N+
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- Network Basics
- Network Hardware
- Network Connections
- Network Software
- Data link layer protocols
- Network layer protocols
- Transport layer protocols
- TCP/IP Fundamentals
- TCP/IP Routing
- TCP/IP Applications
- TCP/IP Configuration
- Remote Network Access
- Network Security
- Planning and Installing a Network
- Network Maintenance and Trouble Shooting

MCSE

Module I

Installing, Configuring and Administering Microsoft Windows XP Professional (70-270)

- Installing and upgrading to Windows XP Professional
- Implementing and Conducting Administration of Resources
- Monitoring and Optimizing System Performance in Windows XP
- Configuring and Troubleshooting the Windows XP Environment
- Implementing, Managing and Troubleshooting Security

Managing and Maintaining a Microsoft Windows Server-2003 Environment (70-290)

- Managing and Maintaining Physical and logical Disk
- Managing Users Computers and Groups
- Managing and Maintaining Access to Resources
- Managing and Maintaining a Server Environment
- Managing and Implementing Disaster Recovery

Module II

Implementing, Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure.(70-291)

- Implementing, Managing and Maintaining IP address (DHCP)
- Implementing, Managing and Maintaining Name Resolution (DNS Service)
- Implementing, Managing and Maintaining Network Security
- Implementing, Managing and Maintaining Routing and Remote Access
- Maintaining a Network Infrastructure.

Module IV

Planning, Implementing and maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure. (70-294)

Planning and Implementing an Active directory Infrastructure

- Creating Forest Root Domain, Child Domain. Installing Active Directory.
- Creating Sites, Bridgehead Servers
- Planning OU structure
- Managing Trust Relationship, Scheme modifications UPN suffix
- Configuring Replication of ADS, Restore Operations, Operation Master Roles
- Planning and Implementing Users, Computers and Groups.
- Planning and Implementing Group Policy

Module V

Planning and Maintaining a Microsoft Windows 2003 Network Infrastructure (70-293)

- Planning and Implementing Server Roles and Server Security Roles : , Domain Controllers, Web Servers, Database Servers, Mail Servers
- Planning, Implementing and Maintaining a Network Infrastructure
- Planning, Implementing and maintaining Routing and Remote Access
- Planning Implementing and Maintaining Server Availability
 - ◆ Identify system bottlenecks Memory, Processor,
 - ◆ Disk and Network related
 - ◆ Recover from cluster node failure.
- Creating the Conceptual Design by gathering and analyzing Business and Technical Requirements.
- Creating the logical design for an Active directory Infrastructure
- Creating the logical design for a Network Services Infrastructure.
- Creating the physical design for an Active directory and network Infrastructure
- Creating the physical design for an Active directory and network Infrastructure

Module VI

Designing Win 2003 Active directory and Network Infrastructure (70-297)

- Creating the Conceptual Design by gathering and analysing Business and Technical Requirements.
- Creating the logical design for an Active directory Infrastructure
- Creating the logical design for a Network Services Infrastructure.

Module VII

Implementing and Managing Microsoft Exchange Server 2003 (70-284)

- Installing, Configuring and Troubleshooting Exchange Server 2003
- Managing, Monitoring and Troubleshooting Exchange Server Computers.
- Managing, Monitoring and Troubleshooting the Exchange Organization.
- Managing Security in the Exchange Environment
- Managing and Monitoring Technologies that Support Exchange Server

MCSE 2008 / MCITP

MCSE 2008 - WINDOWS SERVER 2008

- What's New in Windows Server R2
- Installation and Configuration: Adding R2 to your World
- Hyper-V: Scaling and Migrating Virtual Machines
- Remote Desktop Services and VDI: Centralizing Desktop Application Management
- Active Directory: Improving and Automating Identity and Access
- The File Services Role
- IIS 7.5 : Improving the Web Application Platform
- Direct Access and Network Policy Server
- Other Features and Enhancements

70-640: SERVER 2008 ACTIVE DIRECTORY CONFIGURATION

- Lab 1 : Exploring the windows Server 2008 Interface
- Lab 2 : Installing Active Director Domain Services Working with Active Directory Sites
- Lab 3 : Global Catalog and Flexible Single Master Operations (FSMO) Roles
- Lab 4 : Creating and Managing Users and Groups
- Lab 5 : Employing Security Concepts
- Lab 6 : Exploring Group Policy Administration
- Lab 7 : Managing Users and Computes with Group Policy
- Lab 8 : Software Distribution
- Lab 9 : Controlling Group Policy
- Lab 10: Disaster Recovery and Maintenance
- Lab 11: Configuring Name Resolution and Additional Services
- Lab 12:Configuring Active Directory Certificate Services

70-642: SERVER 2008 NETWORK INFRASTRUCTURE CONFIGURATION

- Lab 1 : Introducing Windows Server 2008 Networking
- Lab 2 :Installing Microsoft Windows Server 2008
- Lab 3 :Configuring and Managing the DHCP Server Role
- Lab 4 :Configuring and Managing the DNS Server Role
- Lab 5 :Configuring Routing and Remote Access (RRAS)
- Lab 6 :Configuring File Services
- Lab 7 :Configuring Print Services
- Lab 8 :Maintaining and Updating Windows Server 2008
- Lab 9 :Securing Data Transmission and Authentication
- Lab10:Configuring Network Health
- Lab11:Maintaining Windows Server 2008 File Services

70-643 : SERVER 2008 APPLICATION INFRASTRUCTURE CONFIGURATION

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| Lab 1 : Preparing and Application Server | Lab 2 : Deploying File Server |
| Lab 3 : Using the File Services Role | Lab 4 : Using the Print Services Role |
| Lab 5 : Deploying a Web Server | Lab 6 : Configuring IIS 7 |
| Lab 7 : Deploying an FTP Server | Lab 8 : Deploying a Termination Server |
| Lab 9 : Using RemoteApp | Lab 10: Using Termination Services WebAccess |
| Lab 11: Using Network Application Services | Lab 12: Clustering Servers |

70-646 : SERVER 2008 ADMINISTRATOR

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| Lab 1 : Deploying Windows Server 2008 | Lab 2 : Deploying Infrastructure Services |
| Lab 3 : Deploying Active directory | Lab 4 : Deploying Applications |
| Lab 5 : Using file and Print Services | Lab 6 : Working with Disks |
| Lab 7 : Using High Availability Features | Lab 8 : Securing a Server |
| Lab 9 : Securing Infrastructure Services | Lab 10 : Managing Servers |
| Lab 11 : Monitoring Services | Lab 12 : Backing Up |

70-236: EXCHANGE SERVER 2007

- Lab 1 : Understanding DNS Resolution, SMTP and Exchange Server 2007
- Lab 2 : Working with Active Directory
- Lab 3 : Deploying Exchange Server 2007 SPI
- Lab 4: Configuring Exchange Server 2007
- Lab 5 : Configuring Recipient Objects
- Lab 6: Configuring Address Lists, Policies and Bulk Management
- Lab 7 : Configuring Public Folders
- Lab 8: Configuring Protocols and Transport Rules
- Lab 9: Configuring Security
- Lab 10: Backing up, Restoring and Repairing Exchange
- Lab 11 : Monitoring Exchange
- Lab 12 : Configuring Mobile Access and Unified Messaging
- Lab 13 : Configuring High Availability

CCNA

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- Description of Frame Relay, ISDN
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- ISDN configuration
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CCNP

Module I

Exam :(640-801) BSCI(Routing- Building Scalable Cisco Internet works)

- Scaling Large Internetwork
- Ip addressing
- Understanding VLSM, CIDR
- IPv6 interoperation with EIGRP
- Configuring and Verifying Integrated IS-IS
- Functions and operation of OSPF in multi-areas
- Configuring stub, totally stub, NSSA
- Verifying and troubleshooting OSPF
- Route Redistribution
- BGP advanced Features
- Implementing Multicast forwarding (PIM-SM, DM)
- IGMP

MODULE II

Exam: (642-812) BCMSN (Building Cisco Multilayer Switched Networks)

- The Campus networks (BCMSN)
- Switching Technologies
- Implementing VLAN and Trunks
- Implementing trunks with ISL and 802.1Q
- Explain the function and operation of STP and RSTP
- Implementing PVRST and MST
- Inter - VLAN Routing
- Multilayer switching
- Implementing Gateway reducing with HSRP, VRRP, and GLBP