

TESDA Computer Systems Servicing NCII with Exam (Fast Track)

COURSE OVERVIEW

Course 1: PC Hardware & Software Troubleshooting & Repair w/ OJT



Course Description:

This Hands-On training teaches you everything you need to know to become an expert Technical Support Staff. It covers Basic to Advanced troubleshooting and servicing strategies. You need no further PC Repair training after completing this course. This course is an unselfish transfer of technology from CNCTC Inc through its experienced IT Trainers at a reasonable price. It is a two course training merge into one training.

This course will help you prepare for TESDA CHS NCII Assessment Exam

COURSE DELIVERY:

Instructor-led, Hands-On training approach.

COURSE PREREQUISITE:

- Familiarity with Windows Operating System
- High Level interest in learning

Course 2: PC NETWORKING AND ADMINISTRATION

Course Description:

This HANDS-ON training gives you the knowledge and skills to design, build, configure and implement a Local Area Network/WAN. The training starts from the ground up, from planning to purchasing to designing and to cabling the network and to configuring the network so that it will be up and running. The training does not stop there because it includes Implementing, Configuring and Administering a Windows 2008 Active Directory Infrastructure It teaches you all you need to know to administer a Windows 2003 Network.

This course will teach you how to setup and install a Cyber Cafe Internet Computer Shop.

This will also help you prepare for TESDA CHS NCII Assessment Exam.

COURSE DELIVERY:

Instructor-led, Hands-On training approach.

COURSE PREREQUISITE:

PC Hardware and Software Troubleshooting and Repair Training

COURSE INCLUSIONS:

- Free Lunch Meal
- Free Flowing Coffee
- Training Materials
- On the Job Training (OJT)
- Assessment Exams
- Certificate of Completion

COURSE OUTLINE**Course 1: PC Hardware & Software Troubleshooting & Repair w/ OJT****MODULE 1 – ADVANCED PC ASSEMBLY, HARDWARE CONFIGURATION & SERVICING****Chapter 1 – Introduction**

- Common PC errors
- Types of Personal computers
- Identifying key parts of a Personal Computer
- Basic Software components
- Overview of PC Operation

Chapter 2 – CPU CASE AND POWER SUPPLY

- Types of PC case
- Functions of a CPU Case
- Front Panel connectors
- Removing CPU Case
- Cleaning the PC case
- PC Cooling System
- PC Cooling system maintenance
- Power Supply, Common Power Supply problems

Chapter 3 – The PROCESSOR

- Types of CPU dual core, core 2 duo, quad core, i3, i5, i7 etc
- CPU socket/slot types
- Comparing different types of CPU (AMD / INTEL)
- How to identify CPUs physically

- Physical installation of CPU
- Installing CPU fan
- CPU Benchmarking
- CPU Overclocking
- Upgrading CPU
- CPU maintenance
- CPU cleaning procedures
- Troubleshooting & testing CPU using processor diagnostic test

Chapter 4 – The MOTHERBOARD

- Types of motherboards
- Motherboard layout, form factors
- Motherboard Identification
- Motherboard components
- ROM BIOS
- Motherboard BUSSES
- Configuring motherboard jumper settings
- Upgrading motherboards
- Signs of trouble with the motherboard
- Common motherboard problems
- Motherboard Maintenance
- Motherboard Cleaning procedures
- Troubleshooting and testing motherboards

Chapter 5 – The MEMORY

- Types of Memory
- Comparing different types of memory
- Memory identification
- Adding and Removing Memory
- Memory upgrading
- Memory Maintenance
- Memory cleaning procedures
- Determine failed memory devices using memory diagnostics test
- Troubleshooting RAM error

Chapter 6 – STORAGE DEVICES

- The HARD DRIVES
- Types of hard drives
- Hard drive manufacturers
- Hard Drive Identification
- Identifying drive capacity

- Hard drive controllers
- SATAIDE/SCSI cables
- Hard drive configuration (Master/Slave layout)
- Hard drive installation
- Upgrading to large Hard-disks
- Optimizing hard disk performance
- Hard drive maintenance
- Hard drives problems troubleshooting and repairing

Chapter 7 – EXPANSION CARDS/PERIPHERAL DEVICES

- Expansion Slots
- Proper insertion of expansion card
- Replacing and removing expansion card
- PCIE / Display /Video or Graphics card
- Graphics adapter installation
- Adding ad Removing video card
- Display card Maintenance
- Display card cleaning
- Symptoms of trouble with display adapter
- Common problems of graphics adapter

Chapter 8 – PC PORTS

- USB Port
- Symptoms of trouble with USB port
- Repairing common USB errors

Chapter 9 – PC Assembly/Disassembly

- Safety Concerns
- Heat Factors
- Static Electricity
- Electro Static Discharge (ESD)
- Radio Frequency Interference
- AC Power
- Spikes, Brownouts, Blackouts
- UPS
- Common errors occurring after PC Assembly
- Properly assemble a Personal Computer
- Properly disassemble a Personal Computer

Chapter 10 – BIOS/CMOS Management

- BIOS
- Function of a BIOS
- Accessing CMOS Setup
- Navigating and Changing CMOS values
- Upgrading the BIOS
- Troubleshooting system faults using POST
- BIOS and POST codes
- Using POST audio and Video error codes
- Standard IBM POST error codes
- Determining what POST can not test

Chapter 11 – Advance PC HARDWARE Servicing

- PC Troubleshooting strategy
- Designing a troubleshooting methodology
- Establishing where to begin the testing
- Determining common causes of failures
- Finding and isolating the board with the problem

MODULE 2 – ADVANCED PC SOFTWARE CONFIGURATION, TROUBLESHOOTING & DATA RECOVERY

Chapter 1 – Introduction

- Common Windows errors
- Desktop Operating Systems
- Network Operating Systems
- Overview of Windows Operating System
- Windows Boot Process
- Windows configuration files
- Windows core files
- Windows System Directories

Chapter 2 – Windows File Systems

- FAT (File Allocation Table)
- NTFS (New Technology File System)
- Types of File Systems (FAT16, FAT32, VFAT,
- NTFS4, NTFS5 & HPFS)
- File System Care
- Checking the drive for errors
- Supported File Systems of different versions of Microsoft Windows

Chapter 3 – HARD DISK MANAGEMENT & CONFIGURATIONS

- Hard disk configurations
- Hard disk partition
- Preparing a brand new hard drive
- Partitioning a Hard Drive
- Formatting a Hard Drive
- Deleting Hard Disk partitions
- Hard Disk Diagnostic test
- Repairing the Master Boot Record
- Fixing a damaged partition table
- Repairing Hard Disk with Bad Sectors

Chapter 4 – Operating System Installations and upgrades

- Hardware requirements
- Hardware compatibility
- Common errors during installation
- Installing Windows 7
- Installing Windows 8
- Installing Windows 10
- Upgrading your Operating System
- Dual Boot Installation

Chapter 5 – Hardware Device Driver Installation

- What is a Device driver?
- Function of a device driver
- Determining hardware model & manufacturer
- Where to find Hardware drivers
- Searching for drivers in the internet
- Installing device drivers (Video card, LAN card, Modem, printers etc..)
- Post-install operations

Chapter 6 – Software Installation

- Software compatibility
- Hardware requirements
- Dealing with failed installation
- Installation methods (Control Panel, Installer)
- Installing Software (MS-Office, Anti-Virus, Network games programs etc..)
- Software updates and Service packs
- Uninstalling Software

- Dealing with failed uninstallation
- Manual Removal of installed Software

Chapter 7 – Virus Management: Detecting and Removing

- What is a virus?
- Types of virus
- Spyware, Adware, malware viruses
- Preventing Virus infections
- Protecting Key System files
- Checking for Macro viruses missed by anti-virus programs
- Protecting against script based virus.
- Symptoms of an infected computer
- Deciding what anti-virus program to install
- Installing Anti-Virus programs
- Installing Anti-Spyware, Malware and Adware program.
- Diagnosing, Treating and Removing Virus infections

Chapter 8 – DATA RECOVERY Concept

- How disk drives work
- Understanding Tracks, Sectors, Cylinders and Clusters
- Master Boot Record
- Partition table
- Troubleshooting strategy concepts
- Running Scandisk to check for disk errors
- Correcting errors reported by scandisk
- Causes and symptoms of a corrupted FAT
- Repairing lost and cross-linked files
- Surviving Disk Disasters
- Understanding Disk error messages
- Creating emergency rescue disk
- Using Disk repair tools
- Recovering Files and Directories
- Recovering erased Files
- Transferring recovered files to backup disk
- Editing Disk sectors
- Reviving non-bootable disk
- Repairing the Master Boot Record
- Fixing a damaged partition table
- Dealing with accidental Reformatting
- Unformatting a drive
- Removing Disk Fragmentation
- Using Backup utility program

- Fixing common disk problems
- Solving ?Invalid drive specification

Chapter 9 – Configuring and Troubleshooting WINDOWS

- General Troubleshooting Methodology
- What to do when Windows failed to start
- Windows Plug n Play Architecture
- Windows boot files
- Windows Start-up process
- Troubleshooting Windows Start-up problems
- Dual booting Windows 7 with Windows 8/10
- Creating a bootable USB installer
- Solving common Windows errors
- Windows 7/10 Administrative Tools
- Computer Management Console (Adding, Editing and deleting partitions)
- System Tools, Services and applications

Chapter 10 – DISK PARTITIONING/CLONING

- Disk Partitioning Concept
- Disk Cloning Concept
- Advantages of Disk Cloning
- Issues to consider before cloning a drive
- Preparing for Disk Cloning
- Disk Cloning Software (XXclone)
- Disk Cloning using HIRENS
- Dealing with accidental or mistakenly cloned drive (Uncloning a drive)
- Common disk cloning errors
- Solving Disk Cloning failures

Chapter 11 – HIRENS UTILITY

- Mini OS (xp / 7 Portable)
- Offline Password Changer)
- Testing tools

Chapter 12 – VIRTUAL MACHINES

- Virtual Machine Concept
- Creating a virtual machine
- Troubleshooting a virtual machine
- Rules and guidelines in creating a virtual machine

Course 2: PC NETWORKING AND ADMINISTRATION

MODULE 1: NETWORK TECHNOLOGY, DESIGN/CABLING & WIRELESS LAN SETUP

Chapter 1: Introduction to Local Area Network

- Defining a Local Area Network
- Application of PC Networking
- Organization-wide computing
- Workgroup computing
- Resource sharing
- Distance Learning
- FTP and Web Access
- Differentiating LAN, MAN and WAN
- Network Standards
- Network Operating Systems (NOS)
- Characteristics of a NOS
- Desktop Operating Systems (Client Operating System)

Chapter 2: Understanding Network components for LAN connectivity

- Client for Microsoft Networks
- Network Adapter
- Network Protocol (TCP/IP)
- File and Printer
- Sharing for Microsoft Networks

Chapter 3: Configuring Network components

- Installing Client for Microsoft Networks
- Installing Network Adapter
- Installing and configuring TCP/IP
- Installing File and Printer Sharing for Microsoft Networks
- Setting Workgroup names and Computer names
- Common errors in building a Network
- Solving Network Connection problems

Chapter 4: TCP/IP & Subnetting

- TCP/IP Overview
- Function of TCP/IP in a Network
- Static and Dynamic IP Addresses
- Class A, B, C and D

- Differentiating IP address classes
- Network ID's and Hosts
- Choosing Private IP addresses
- Assigning IP addresses
- IP Subnetting
- Subnetting Class A, B & C address
- Defining Subnet Masks
- Troubleshooting TCP/IP
- Using Network utilities (ping, tracert, ipconfig, arp, nbtstat etc..)

Chapter 5: INTERNET CONNECTION SHARING

- Overview of the Internet
- Internet Service Providers (ISP)
- Requirements for Internet connection (Modem, Tel. Line, ISP account)
- Broadband Internet connection (Cable/DSL)
- Cable and DSL internet connection setup
- Common errors in connecting to the Internet
- Solving common internet connection failures
- Sharing Internet Connection using a ROUTER
- Configuring a DSL Router
- Managing IP address of DSL Router
- Configuring the embedded DHCP server in the Router
- Managing advanced features of the Router
- Sharing Internet Connection using Wingate software
- Testing for internet connection of the network
- Common Internet sharing problems
- Solving Internet connection errors

Chapter 6: NETWORK DESIGN AND CABLING

- LAN Standards
- Multi-LAN Networks and configuration
- Backbone Designs
- High-Speed LAN
- Defining LAN requirements
- Determining user needs
- Network Hardware
- Network Topology (Star, Bus, Ring and Tree)
- Cabling the Network
- Testing the Cable
- Testing the Network

- Post Installation operations

Chapter 7: WIRELESS LAN SETUP AND CONFIGURATION

- Configuring Wireless Controller
- Configuring and Connecting to Wireless Network
- Common Wireless network errors

CHAPTER 8: CyberCafePro MANAGEMENT FOR INTERNET COMPUTER SHOP

- CyberCafePro Download
- Main Server Setup and Installation
- Client Server Installation to all computers
- Settings and configurations

Chapter 9: DIAGNOSING and TROUBLESHOOTING COMMON NETWORK ERRORS

- No Network Access
- Local Network can not Connect to the internet
- Unable to Connect to Printer Shares
- Inaccessible Local Files
- IP Conflicts
- Slow Internet or Network Speed
- Slow Application Response
- Intermittent loss of network connection
- NO Internet connection
- Single Workstation Unable to Connect to network

MODULE 2 – WINDOWS 2008 SERVER ADMINISTRATION – Active Directory Infrastructure

CHAPTER 1: Configuring Domain Name System (DNS) for Active Directory

Configure zones

- Dynamic DNS (DDNS), Non-dynamic DNS (NDDNS) and Secure Dynamic DNS (SDDNS);
- Primary, Secondary, Active Directory Integrated, Stub;
- forward lookup and reverse lookup zones

Configure DNS server settings

- Forwarding;
- root hints;
- configure zone delegation;
- disable recursion;

- server scavenging

Configure zone transfers and replication

- Configure replication scope (forestDNSzone; domainDNSzone);
- incremental zone transfers
- secure zone transfers

CHAPTER 2: Configuring the Active Directory infrastructure

Configure a forest or a domain

- Remove a domain;
- perform an unattended installation;
- Active Directory Migration Tool (ADMT);
- change forest and domain functional levels;
- interoperability with previous versions of Active Directory;

Configure trusts

- Forest trust;
- selective authentication vs. forest-wide authentication;
- transitive trust; external trust; shortcut trust;

Configure sites

- Create Active Directory subnets;
- configure sites infrastructure

Configure Active Directory replication

- DFSR;
- one-way replication;
- Bridgehead server;
- replication scheduling;

Configure operations masters

- Seize and transfer;
- backup operations master;
- operations master placement;
- Schema Master;

CHAPTER 3: Configuring Active Directory roles and services

Configure Active Directory Lightweight Directory Service (AD LDS)

- Migration to AD LDS;
- configure data within AD LDS;
- configure an authentication server;
- Server Core installation

Configure the read-only domain controller (RODC)

- Replication;
- Administrator role separation;
- read-only DNS;
- credential caching;
- password replication;
- read-only SYSVOL;
- staged install

CHAPTER 4: Creating and maintaining Active Directory objects

Automate creation of Active Directory accounts

- create computer, user and group accounts (scripts, import, migration);
- offline domain join

Maintain Active Directory accounts

- Manage computer accounts;
- configure group membership;
- account resets;
- local vs. domain;
- Protected Admin;
- disabling accounts vs. deleting accounts;
- creating organizational units (OUs);
- delegation of control;
- protecting AD objects from deletion;

Create and apply Group Policy objects (GPOs)

- setting up Group Policies for Domain/OU
- Enforce, OU hierarchy, block inheritance and enabling user objects;
- group policy processing priority;
- group policy filtering;

Configure GPO templates

- User rights;
- ADMX Central Store;
- administrative templates;
- security templates;
- restricted groups;
- security options;

Deploy and manage software by using GPOs

- Publishing to users;
- assigning software to users;

Configure account policies

- Domain password policy;
- account lockout policy;
- fine-grain password policies

Configure audit policy by using GPOs

- audit account logon events;
- audit policy change;
- audit access privilege use;
- audit object access;

CHAPTER 5: Maintaining the Active Directory environment**Configure backup and recovery**

- Using Windows Server Backup;
- back up files and system state data to media;
- backup and restore by using removable media;
- perform an authoritative or non-authoritative restore;
- Directory Services Recovery Mode (DSRM);
- backup and restore GPOs;
- configure AD recycle bin

Perform offline maintenance

- Offline defragmentation and compaction;

Monitor Active Directory

- Event viewer subscriptions;
- data collector sets;
- real-time monitoring;
- analyzing logs;

COUSE FEE and SCHEDULES

COURSE FEE: : PHP 15,500 | USD298

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COURSE SCHEDULES:

Mon to Fri – 9-5pm

Sat – 9-3pm

Sun – 9-3pm