

Open Vocational Education Program

**COMPUTER HARDWARE
ASSEMBLY AND MAINTENANCE
(COMPUTING AND PERIPHERALS)**

NSQF Compliant Level 4

PRACTICAL MANUAL



NATIONAL INSTITUTE OF OPEN SCHOOLING

(An Autonomous Institution under MHRD, Govt. of India)

A-24-25, Institutional Area, Sector-62, NOIDA-201309 (U.P.)

Website: www.nios.ac.in, Toll Free No. 18001809393

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Notes

Practical 1

Identify types of computer and find its usage in agricultural, education and weather forecasting areas.

Objective

After completion of this practical you will be able to identify the types of computer and find usage of computer in agriculture, education and weather forecasting areas.

Hardware required

- 1) Desktop computer
- 2) Laptop
- 3) Hand held computer
- 4) Internet connection on your computer/laptop/hand held computer.

Pre-requisite

- 1) Theoretical knowledge of computer and its types.
- 2) Learners should be able to use computer and a surf the internet using a web browser.

Procedure

- 1) Identify Desktop/Laptop/Handheld computer.
- 2) Check power supply in Desktop computer.
- 3) Turn on computer.
- 4) Check internet connection.
- 5) Open web browser (i.e. Internet Explorer, Google chrome).
- 6) Type following website on URL:
 - a) Farmers related query type “www.farmer.gov.in”
 - b) Online education material type “www.mooc.nios.ac.in”
 - c) Weather forecast type www.accuweather.com

Notes

Find the desired information from each of these websites.

- 7) Close the browser.
- 8) Turn off computer.

Precaution:

- 1) You must be sure that UPS is attached with computers.
- 2) You must turn off the computer after activity.

Learner's Observations

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Instructor's signature



Notes

Practical 2

Identify various computer components.

Objectives

After completion of this practical, you will be able to:

- identify various components present inside the computer.
- identify input, output and storage devices.

Pre-requisite

- 1) You must have theoretical knowledge of computer components that is present inside computer case.
- 2) You must have also theoretical knowledge of input, output and storage devices.

Hardware required

- 1) Desktop computer
- 2) Screw driver to open computer CPU case
- 3) Wrist strap (antistatic ground bracelet)
- 4) CD-ROM, Pen drive ,External hard disk
- 5) Scanner, Printer

Procedure/Activity

- 1) Put on wrist strap.
- 2) Remove the power supply from computer.
- 3) Identify computer components/ peripheral devices present outside the CPU case (connecting wires, monitor, keyboard, mouse).
 - (a) Identify Input Devices (Keyboard, Mouse, Scanner).
 - (b) Identify Output Devices (Monitor, Printer).
 - (c) Identify Storage Devices(CD-ROM, Pen drive , External Hard Disk).



Notes

Practical Manual

- 4) Open the CPU case using a screw driver.
- 5) Identify motherboard, SMPS, Hard Disk, RAM, Fan, Sound card, video card , modem and Network card (NIC).
- 6) Identify cables used for connecting various internal components of the computer.
- 7) Close the CPU case.

Precaution

- 1) Before starting this practical wrist strap must be wrapped around your wrist.
- 2) You should not touch motherboard parts.

Learner's Observations

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Instructor's signature



Notes

Practical 3

Identify the various ports present on the CPU.

Objective

After completion of this practical, you will be able to identify various ports and the devices that can be connected to these ports.

Devices Required:

- 1) Desktop computer

Activity/Procedure

- 1) Remove all the peripheral devices from the CPU.
- 2) Identify the various ports present at the back and front of CPU. Also identify the types of ports and the devices that they are used to connect.

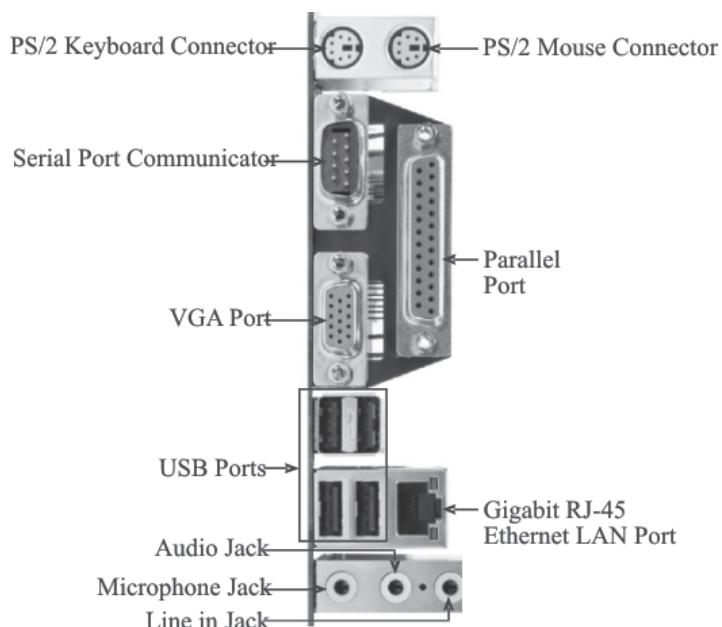


Fig 3.1

- 3) Connect the peripheral devices back through these ports.



Notes

Learner's Observations

Instructor's signature



Notes

Practical 4

Dismantle a Desktop computer.

Objective

After completion of this practical you will be able to dis-assemble the desktop computer and identify the various components of the computer.

Pre-requisite:

- 1) You must have theoretical knowledge of Desktop computer.
- 2) You should be able to identify computers components.

Hardware required

- 1) Desktop Computer
- 2) Screw driver
- 3) Wrist strap

Activity/Procedure

- 1) Put on the wrist strap.
2. This section explains a step-wise procedure of how to dismantle a desktop computer.

Step 1: Unplug the following

- USB
- Power cables
- Keyboard
- Mouse
- Network cable
- Monitor
- Printer
- Any other connected device

**Notes****Step 2: Cooling fans**

Remove the case fan first and then the processor fan. (The Cabinet has two fans Fan1 for processor & Fan 2 for Case.)

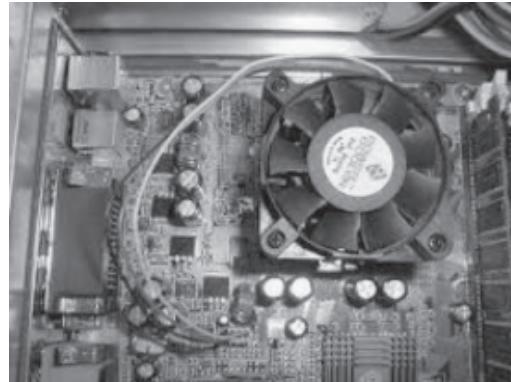


Fig. 4.1 Cooling fans

Step 3: Power supply

System supplies the power to the slots like portable drive, internal drive and CD/DVD drive[s]. Now, you remove the power supply from these slots.

Step 4: Processor

To remove the processor, open the clip and the flap (recall how did you install the processor) and carefully pull the processor out of its slot in the motherboard.

Step 5: Optical Drive

Unscrew the optical drive and pull it out from the front side of the cabinet.

Step 6: Hard disk drive (HDD)

Disconnect the hard disk drive from the motherboard by pulling out the SATA / ID cable from the HDD. Unscrew the drive and remove it from the cabinet.

Step 7: Random Access Memory (RAM)

To remove the RAM chip, push down the tabs which are holding the chip in memory slots. If this process is done successfully, the chip will automatically come out from the memory slot.

Step 8: Motherboard

Before removing the motherboard, make sure that all the power cables have been detached from it and no external device is connected to it. Then you can unscrew the motherboard and carefully remove it from the cabinet.



Notes

Precaution

- 1) Strap should not be loosely wrapped around your wrist.
- 2) You should not touch motherboard parts.

Learner's Observations

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Instructor's signature



Notes

Practical 5

Assembling Desktop Computer.

Objective

After completion of this practical you will be able to

- Assemble the desktop computer.

Pre-requisite

- 1) You must have theoretical knowledge of Desktop computer.
- 2) You should be able to identify computers components.

Hardware required

- 1) Dismantled Desktop Computer
- 2) Screw driver
- 3) Wrist strap

Activity/Procedure

- 1) Put on the wrist strap.

Step 1: Open the Case

To open the computer-system case, first remove the screws on the side panel. Then slide the side panel carefully to remove it.

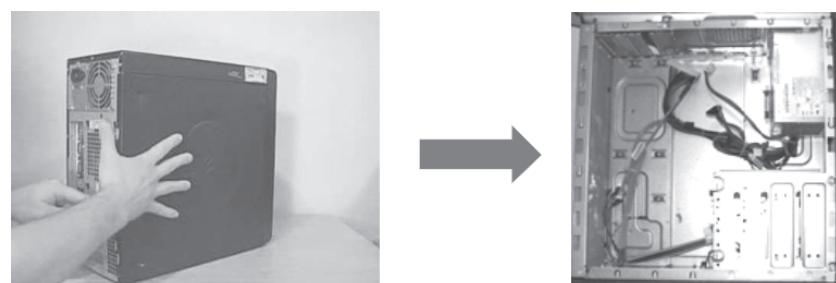


Fig. 5.1 Open the case

Warning: Open the case carefully, it might have sharp edges.

**Notes****Step 2: Prepare the case for Assembly**

Before assembly, two things have to be performed:

- Remove any kind of packaging materials that could possibly have been delivered inside the case.
- Remove the cover on the suitable drive bay in the front of panel to mount our DVD drive.

Step 3: Ground Yourself

Fig. 5.2 Protecting hardware from static charge

Place the ground level strap on your wrist and attach the other end to the computer system case.

Caution:

If you don't wear ground level strap, static electrical energy could damage computer system parts.

Step 4: HDD Installation

Fig. 5.3 HDD installation

Put the HDD in one of the suitable case / slot/ bay (refer Fig. 5.3) available and tighten the screws.



Notes

Step 5: Optical Drive Installation



Fig. 5.4 Optical drive installation

Place the optical disk drive in the suitable bay (refer Fig. 5.4) and tighten the screw.

Step 6: Central Processing Unit (CPU) Installation

There is a clip on one side of the processor socket on the motherboard. Open that clip and the corresponding flap.

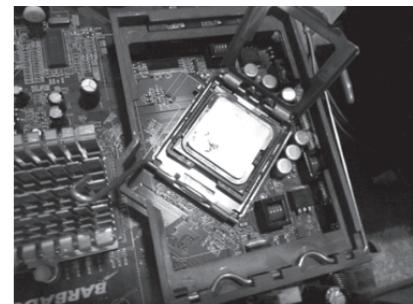
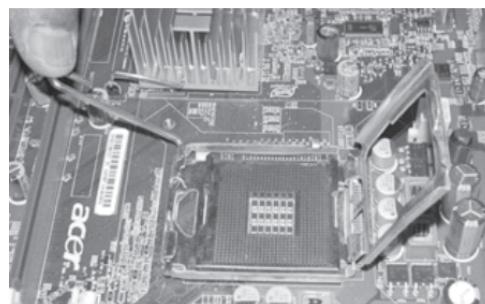
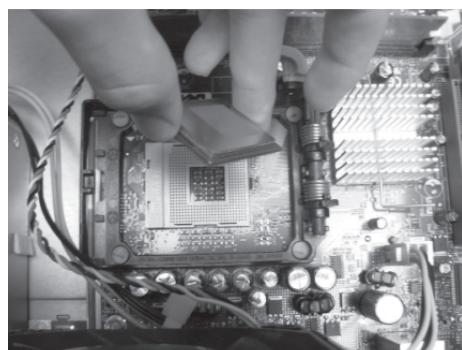
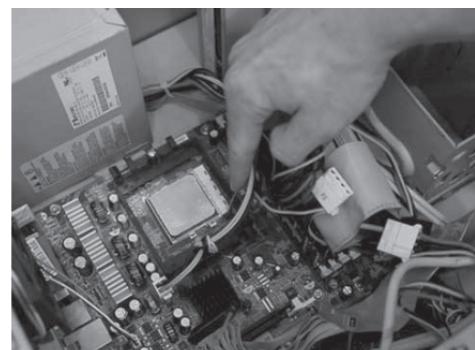


Fig. 5.5 Processor installation on motherboard

Mount the processor on the processor socket as shown below. By observation you will find some cut on one side of the processor socket and a corresponding cut on the processor. Processor can be mounted on the matching sides only. Mount the processor and push a little.



(a)



(b)

Fig. 5.6 (a-b) Placing the processor



After placing it correctly, push the clip down (as shown in figure 5.6 (b) so that the processor gets placed properly.

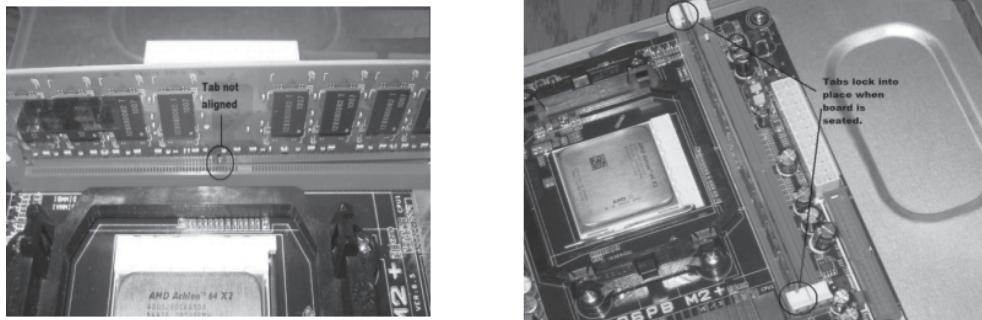
Notes**Step 7: RAM Installation**

Fig. 5.7 RAM installation

Put RAM sticks in the memory slots on the mother board. Before this you may have to open the side locks of the memory slots if they are not already open. One stick can be placed in one memory slot. Here you will find corresponding cuts on the memory stick and the memory slot so that memory sticks can be inserted only in the correct manner. Then close the side locks.

Step 8: CPU Fan Installation and Motherboard Installation

Place the fan with heat sink just above the processor and tighten the screws. Ensure that it is placed correctly; otherwise the processor may get damaged.

Now you can place the motherboard in the cabinet and tighten the screws.

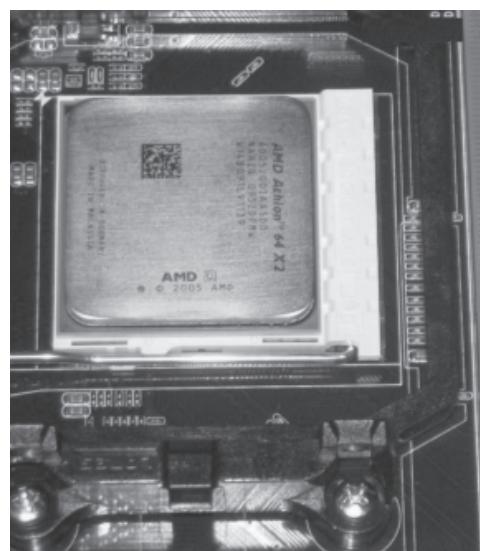


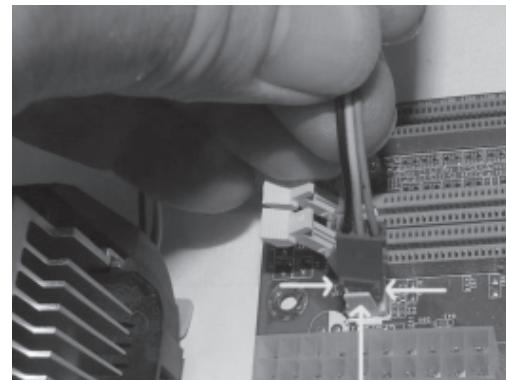
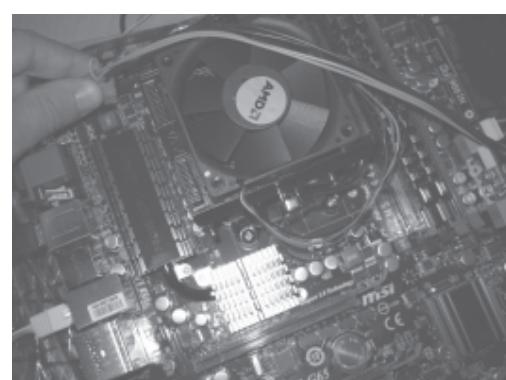
Fig. 5.8 CPU fan installation



Notes

Step 9: Case Fan Installation:**Fig. 5.9** Case fan installation

It is very simple to do. Just put it after all the components have been placed but before connecting cables and tight the screws.

Step 10: Install Power supply**Fig. 5.10** Install power supply**Step 11: Connect the cables****Fig. 5.11** Connect cables



If all the components are set to their place, then connect the power cables and data cables suitably. The details of cables may vary from motherboard to motherboard. Therefore, you have to refer to the documentation (which you must have received with the motherboard) to find the correct connections.

Now your hardware is assembled. You should once again ensure that all the screws are tightly fixed and cables are properly connected. Now connect the keyboard, mouse and monitor to your computer case and connect one end of the power cord to the computer and other end of cord with s pin plug to the power supply socket.

Similarly give power supply to the monitor. After that switch on the computer and use the bootable CD / DVD or pendrive to install the operating system and configure your computer for use.

Precaution

- 1) Wrist strap should not be loosely wrapped around your wrist.
- 2) You should not touch motherboard parts.

Learner's Observations

Instructor's signature



Notes

Practical 6

Installation of Windows 7 Operating system.

Objective

After completion of this practical you will be able to install Windows 7 operating system on your computer.

Pre-requisite

- 1) You must have knowledge of operating system and its use.

Hardware/Software required

- 1) Desktop computer
- 2) Windows 7 bootable Disk

Procedure

1) Windows 7 installation

To start the installation of WINDOWS 7 on any supported PC, you must start with the modifying your BIOS settings to make your PC boot from a CD/DVD or USB drive before it boots from the primary hard disk.

1. Insert a genuine Windows 7 CD in your DVD-ROM drive. Now Windows 7 installation screen appears as shown in Fig. 6.1.

The Microsoft windows installation window appears



Fig. 6.1 Starting Windows



Notes

2. On Windows 7 installation page can choose your desired language (shown in Fig. 6.2).



Fig. 6.2 Enter your language and other preferences

3. Now select **Install now** as shown in Fig. 6.3.

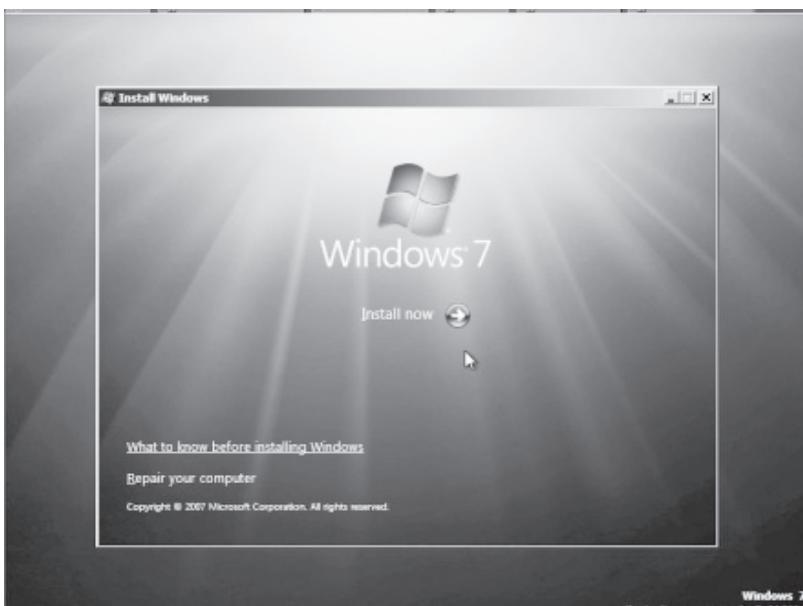


Fig. 6.3 Install Windows 7

Notes

4. Accept the terms and conditions (read instructions before accepting).

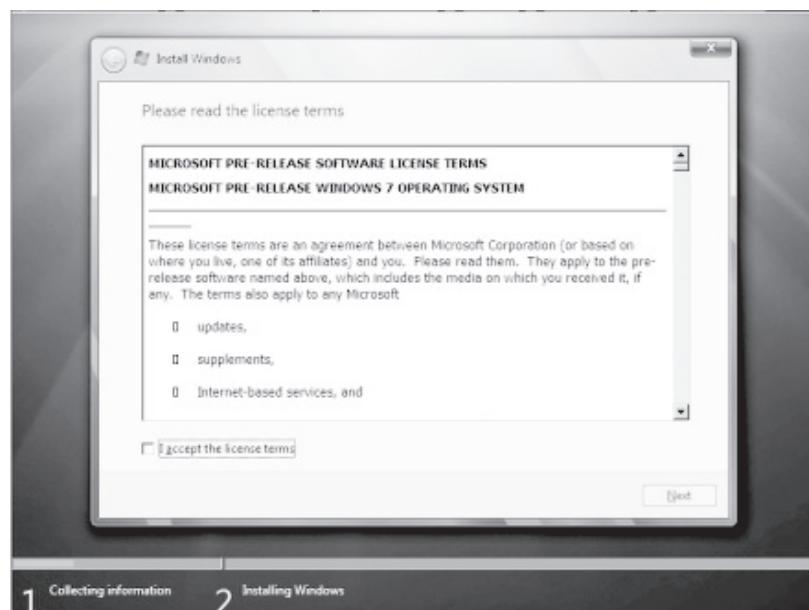


Fig. 6.4 Accept License terms

5. Then the option for upgrading or reinstallation of the windows appears (shown in Fig. 6.5).

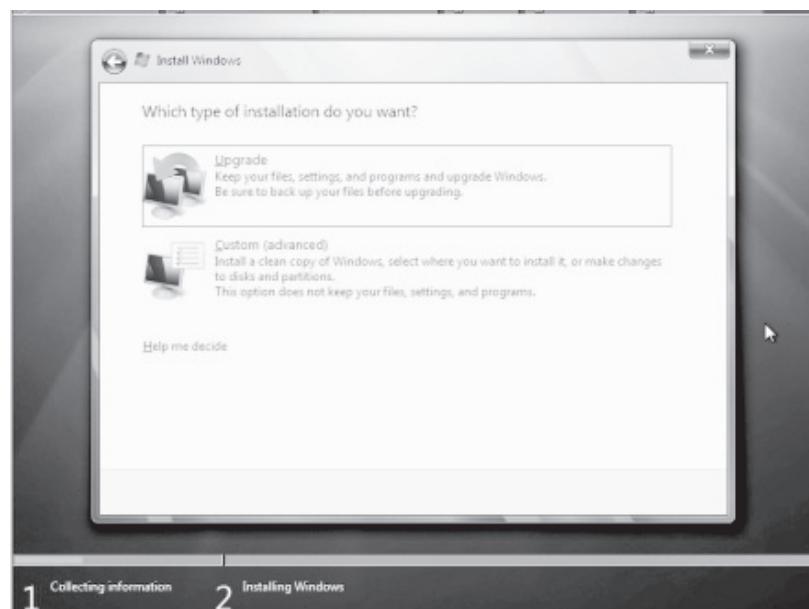


Fig. 6.5 Choose type of Installation



6. If you are upgrading, then the compatibility report is checked and displayed as shown in Fig. 6.6.

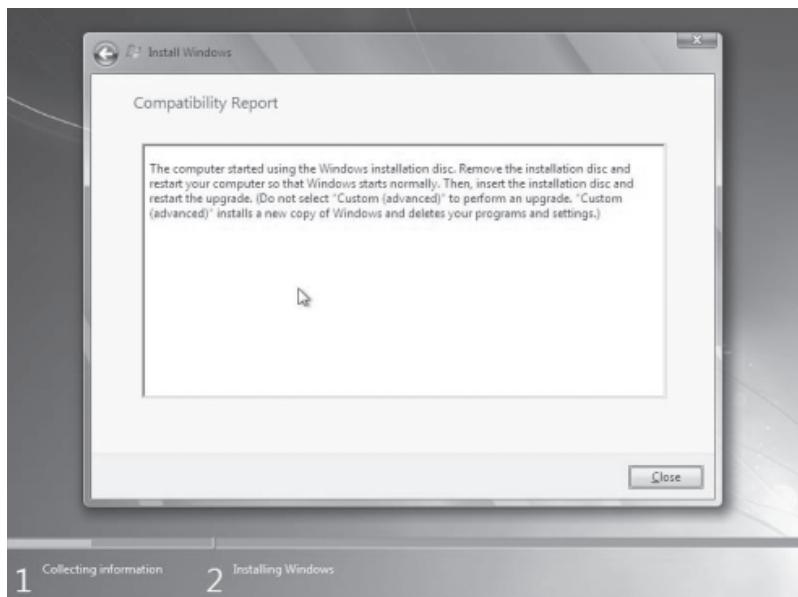


Fig. 6.6 Compatibility Report

7. Choose the drive in which Windows has to be installed and drive partition can be selected from advanced options (shown in Fig. 6.7).

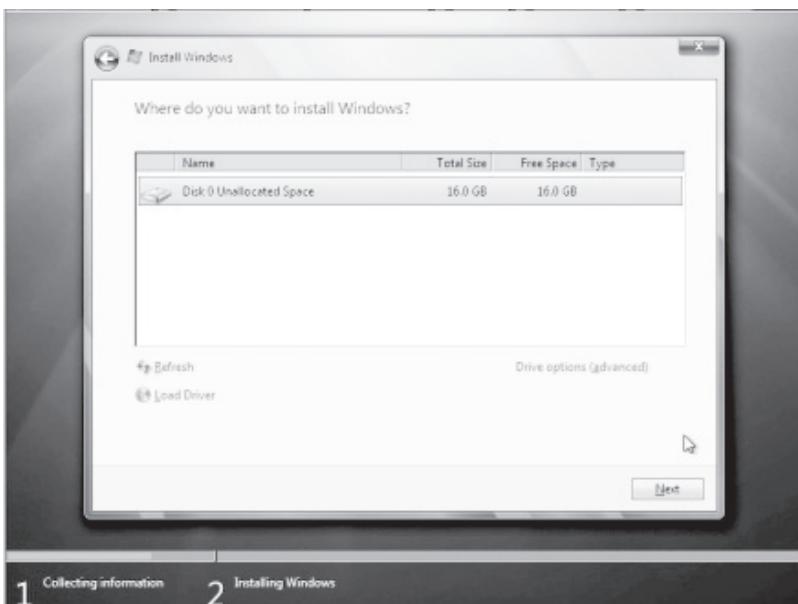


Fig. 6.7 Choose the drive

Notes

8. Windows 7 installation starts.

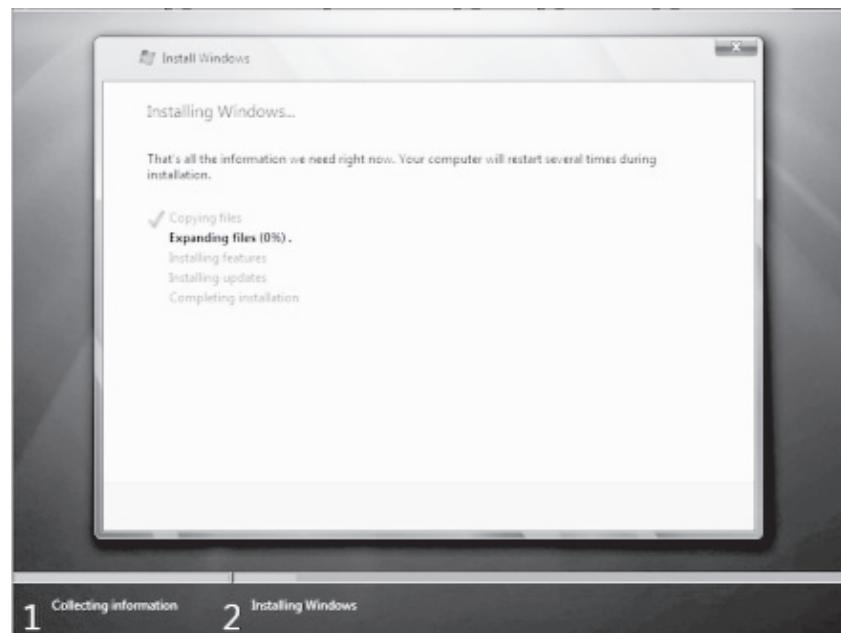


Fig. 6.8 Installing Windows

9. Now System reboots.



Fig. 6.9 System reboots

10. Then the system registry settings are updated as shown in Fig. 6.10.

Notes



Fig. 6.10 Setup is updating

11. The boot process continues and the system will start its services as shown in Fig. 6.11.

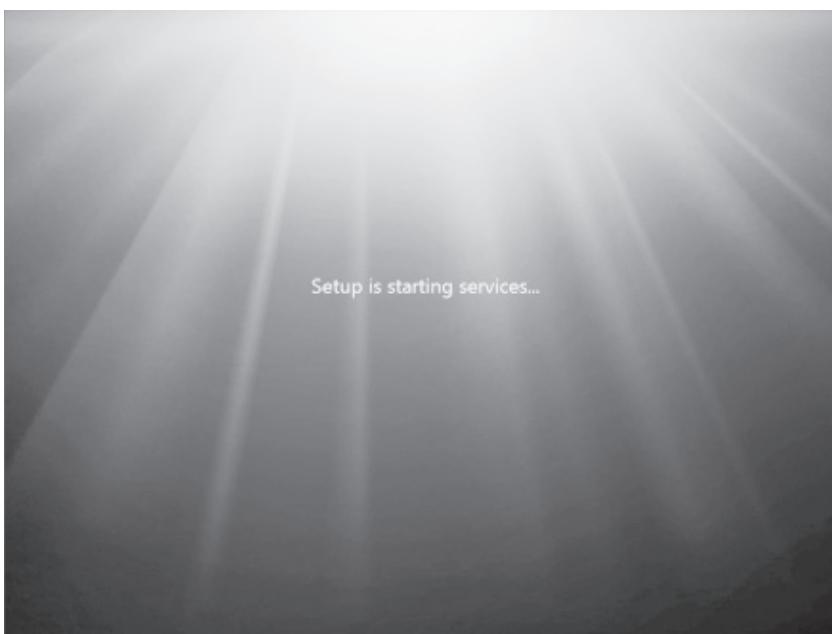


Fig. 6.11 Setup is starting services

Notes

12. Then you are redirected to the boot page and video performance is checked by the boot process (as shown in Fig. 6.12).

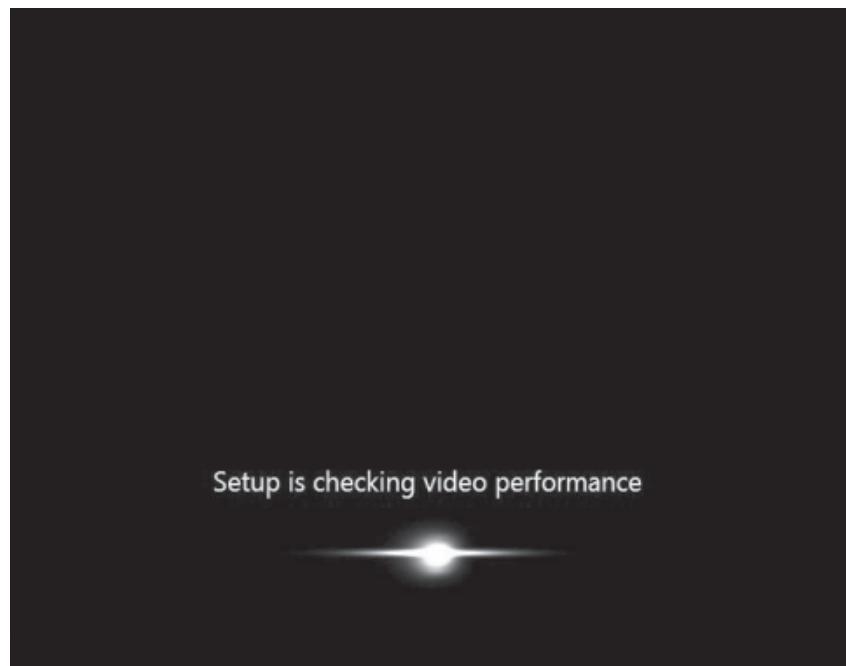


Fig. 6.12 Setup is checking video performance

13. Enter username and computer name in the screen (refer Fig. 6.13) that appears.

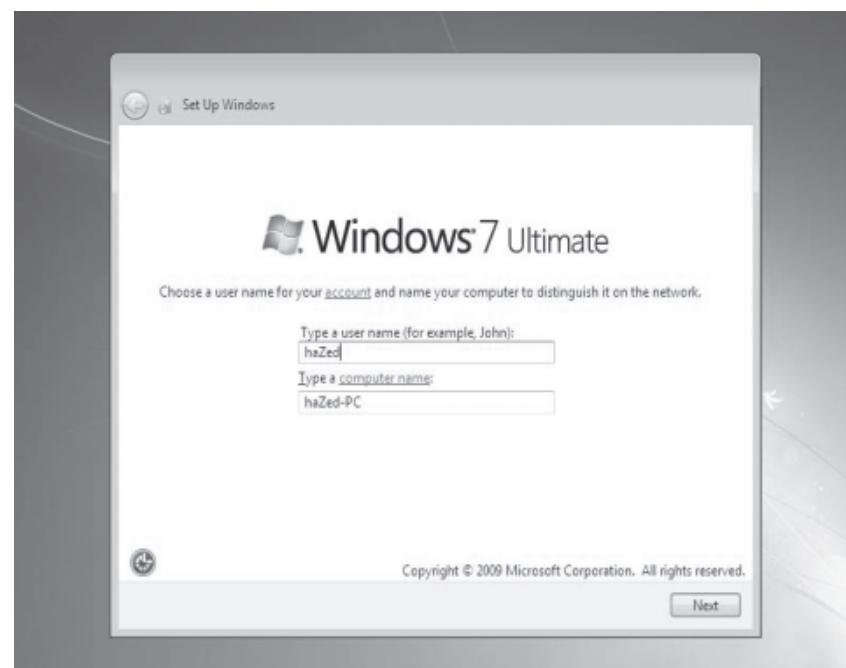


Fig. 6.13 Enter username and Computer name

**Notes**

14. Enter your password (shown in Fig. 6.14).

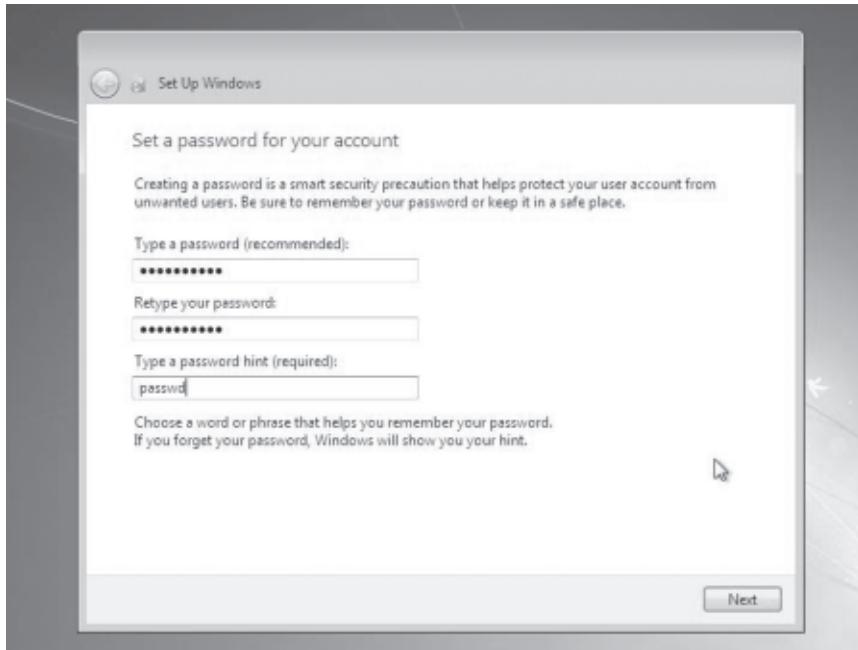


Fig. 6.14 Set a password for your account

15. The screen appears showing that Enter the product key and Click Next (as shown in Fig. 6.15).

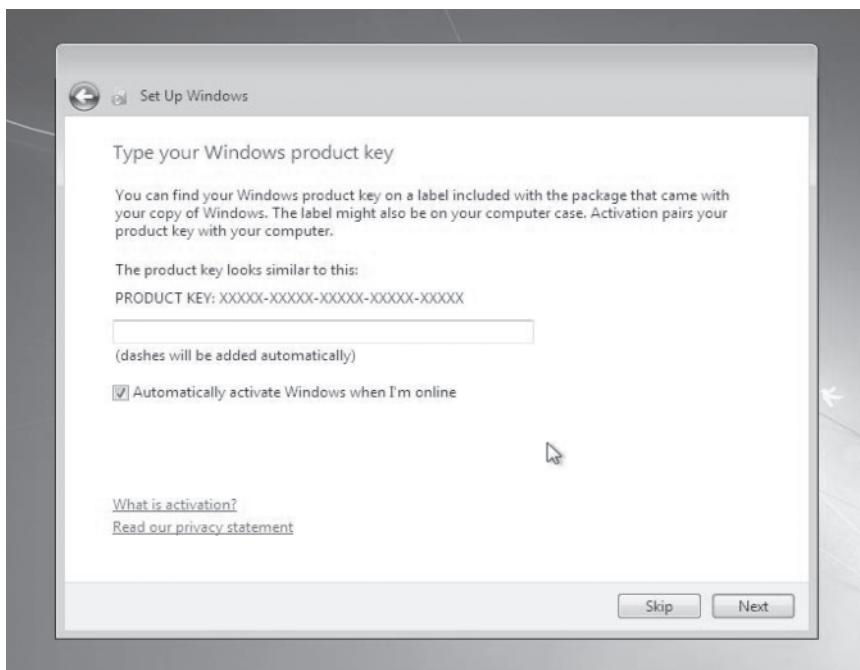


Fig. 6.15 Enter Product key

**Notes**

16. Time zone can be changed according to the place (as shown in Fig. 6.16).

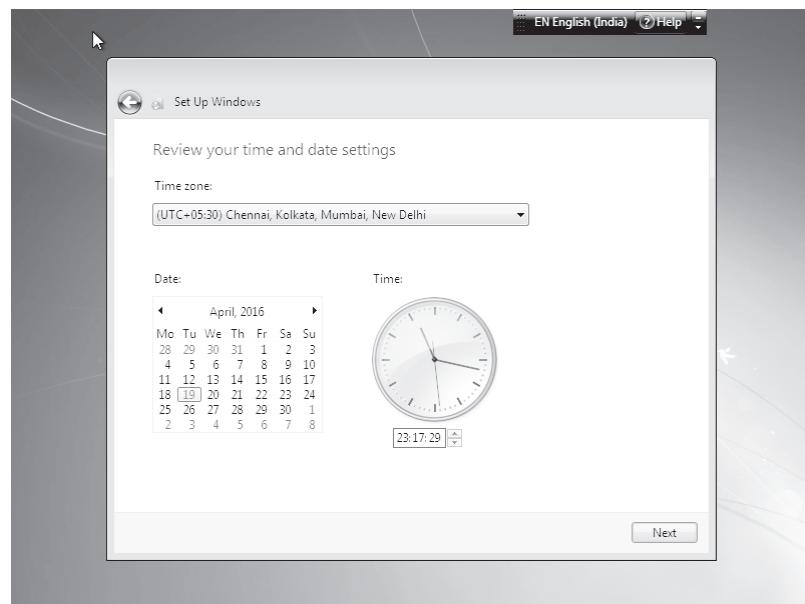


Fig. 6.16 Review your time and date

17. You can select the type of network whether home or office (as shown in Fig. 6.17).



Fig. 6.17 Select the type of Network

**Notes**

18. Choose home network and complete the remaining configuration if you need (as shown in Fig. 6.18).

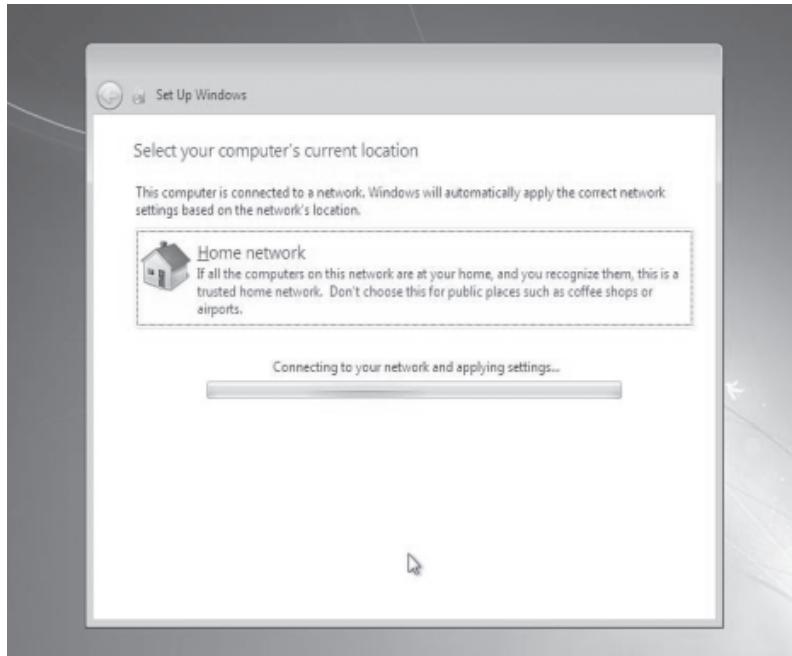


Fig. 6.18 Select Computer's current location

19. Then you get a key for the home devices sharing, then Welcome screen appears (refer Fig. 6.19).

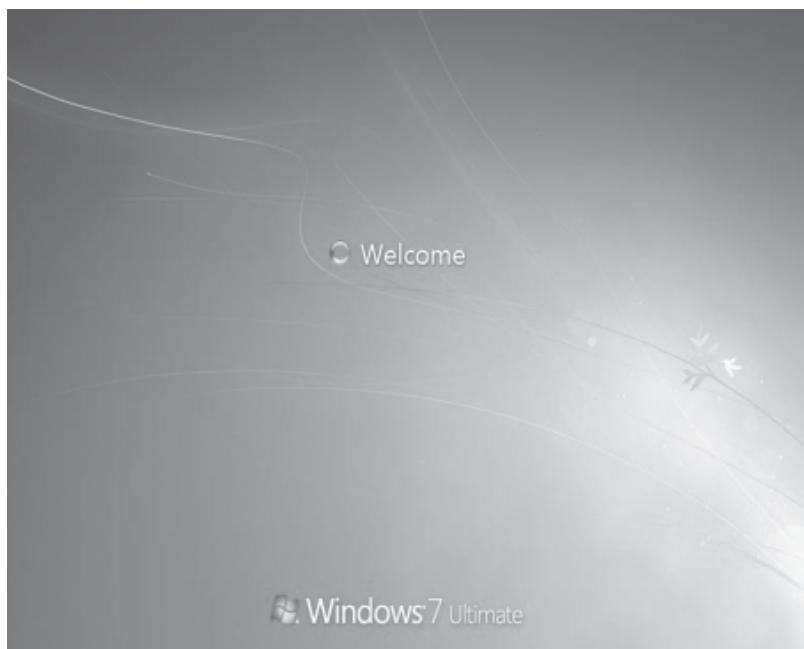


Fig. 6.19 Windows 7 Welcome screen

Notes

20. The Windows 7 installation is complete, now you can view the desktop. Fig. 6.20 depicts Windows 7 desktop.



Fig. 6.20 Windows Desktop

Precaution

- 1) You should use antistatic mat for using computer.
- 2) You must properly decide disk partitioning.

Learner's Observations

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Instructor's signature



Notes

Practical 7

Installation of Ubuntu Operating system.

Objective

After completion of this practical you will be able to install Ubuntu operating system on your computer.

Pre-requisite

- 1) You must have knowledge of operating system and its use.

Hardware/Software required:

- 1) Desktop computer
- 2) Ubuntu bootable Disk

Procedure/Activity

Ubuntu Installation (Step-wise procedure)

To start the installation of Ubuntu on any supported PC, you must start with the following steps:

- (i) Modify your BIOS settings to make your PC boot from a CD/DVD or USB drive before it boots from the primary hard disk.
- (ii) Create a bootable copy of the Ubuntu disk image on a CD, USB flash drive and then insert it into the CD/DVD drive or USB port if using a USB drive.
- (iii) Finally, installation begins.

1. Start and selection screen

Select a language. This selection screen also offers several choices (refer Fig. 7.1). Start Ubuntu without any change.



Notes

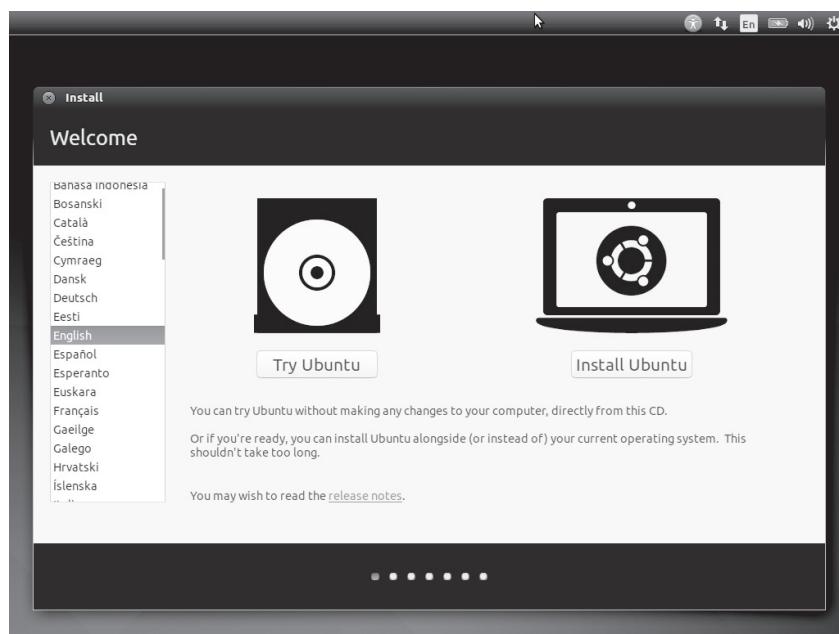


Fig. 7.1 Install Ubuntu

2. You can choose the time-zone manually (shown in Fig. 7.2) or let the system detect it based on your location.

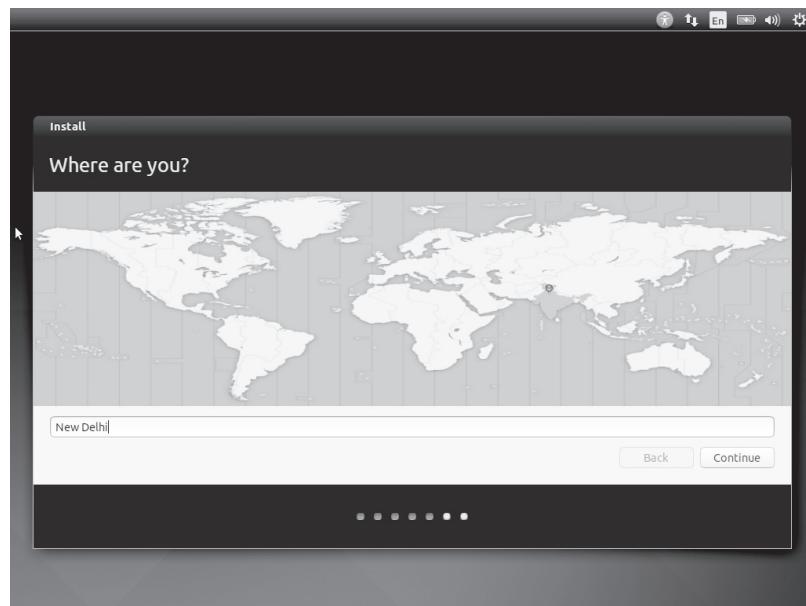
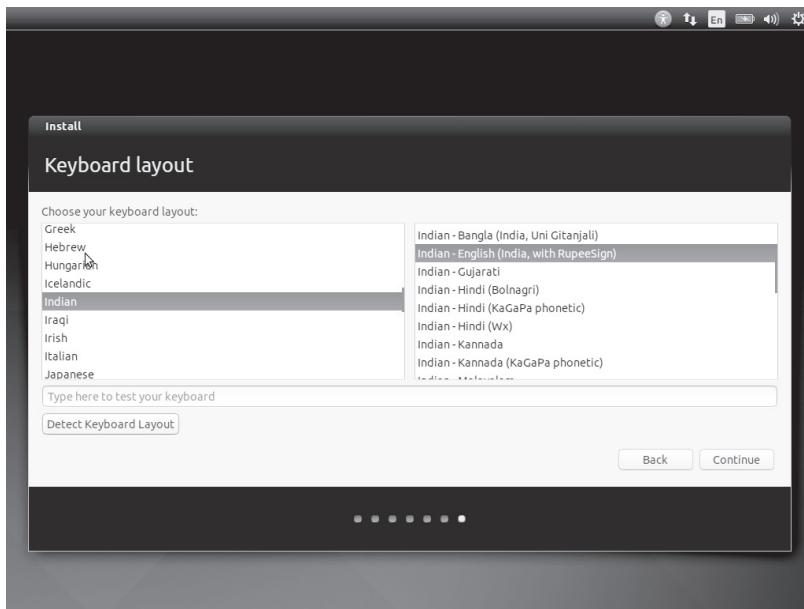


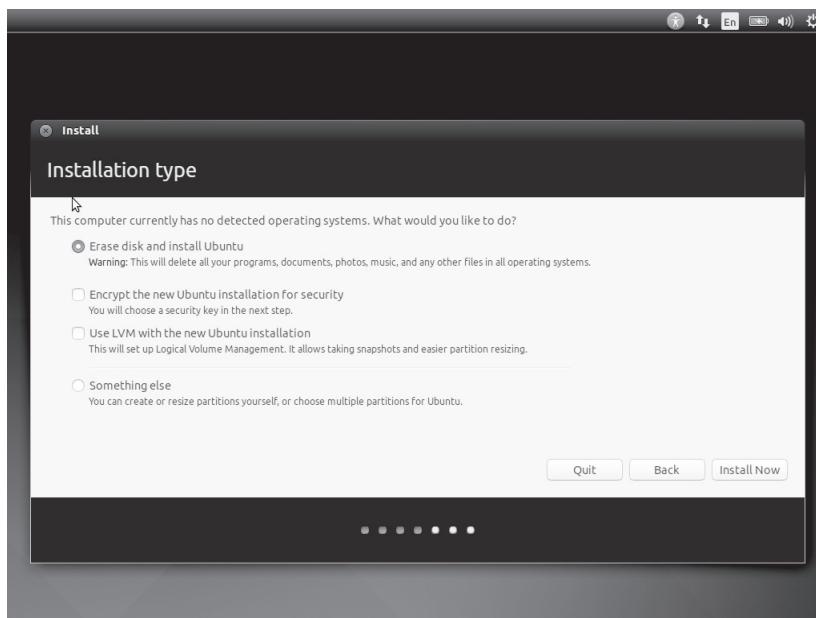
Fig. 7.2 Choose time zone

**Notes**

3. You can choose your keyboard type/layout (shown in Fig. 7.3) or let the system detect it.

**Fig. 7.3** Choose Keyboard Layout

4. Select the option “Erase and Use the Entire disk” (shown in Fig. 7.4) and click Forward button. All information on the drive chosen will be deleted.

**Fig. 7.4** Choose Installation Type



Notes

5. Enter your details in the next screen. Fill the data (name, password, machine name, etc) and click on continue button (shown in Fig. 7.5).

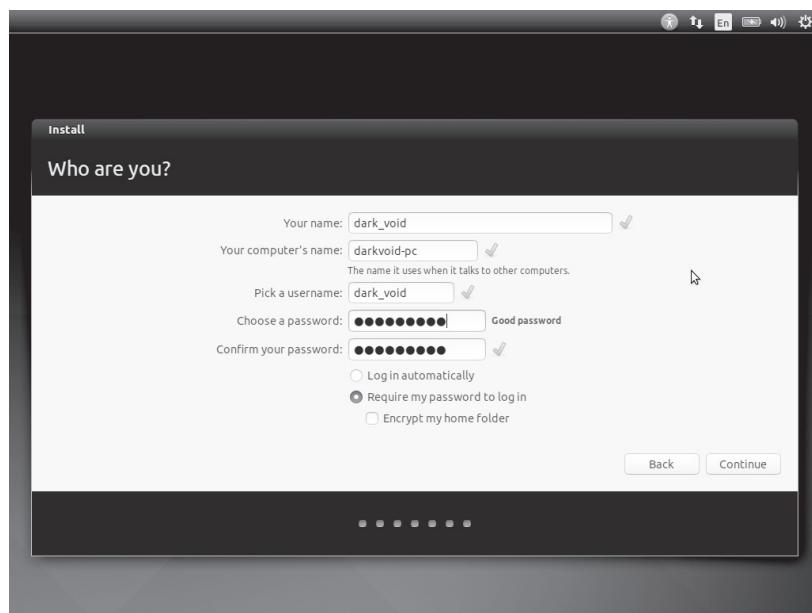


Fig. 7.5 Enter your name, Computer Name

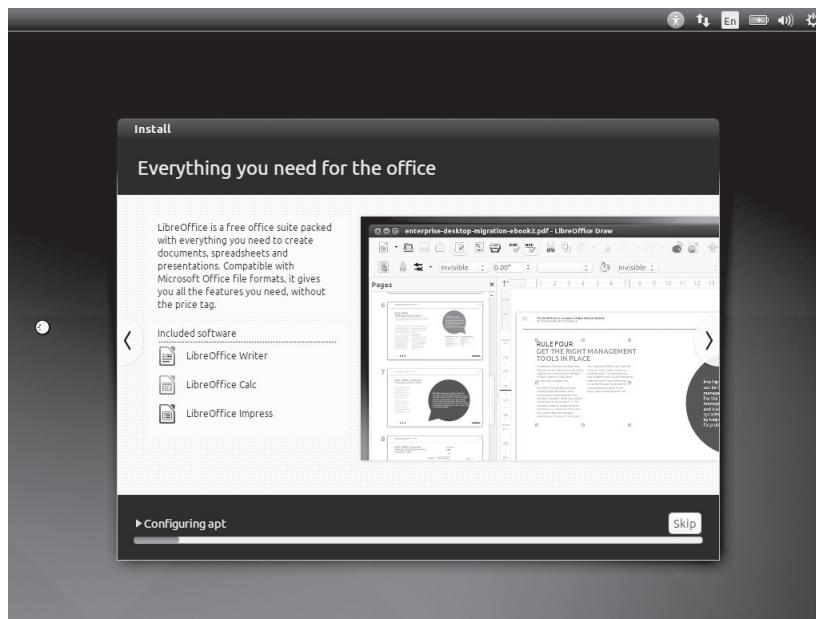
6. A Progress bar showing the status of Installation will be displayed (shown in Fig. 7.6).



Fig. 7.6 Installing Ubuntu



7. You may select Apt (Advanced Packaging Tool) if required.



Notes

Fig. 7.7 Configuring apt

8. Configuring hardware screen appears.

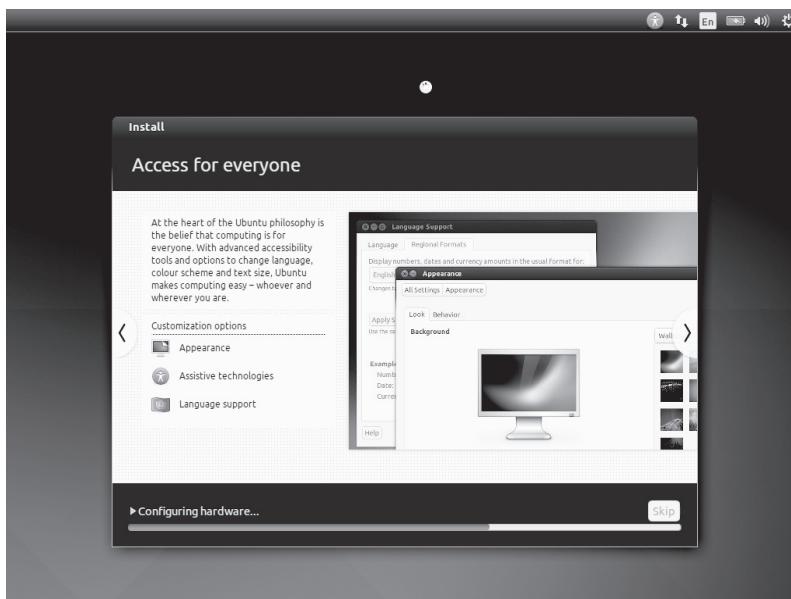


Fig. 7.8 Configuring hardware

Notes

9. Installation Complete – Dialog box confirming that “Installation is Complete” will be displayed (shown in Fig. 7.9). Click “Restart Now” button to reboot the machine.

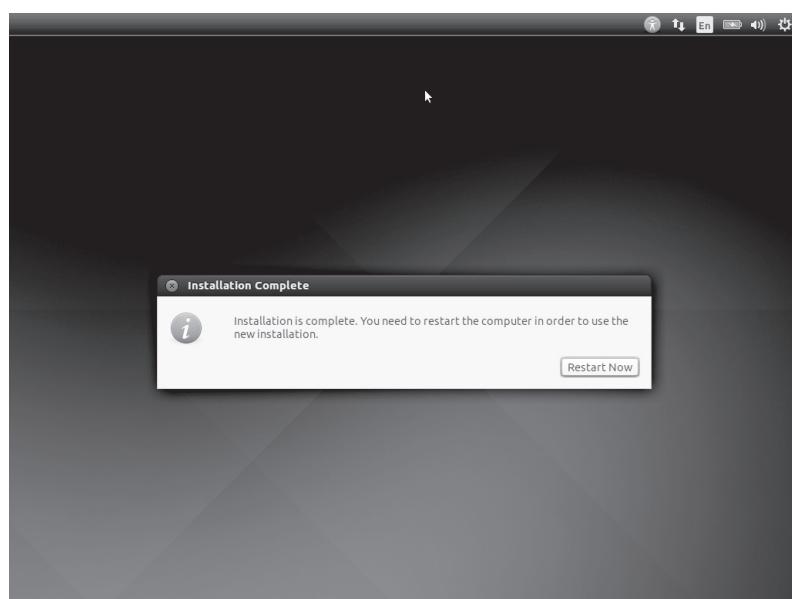


Fig. 7.29 Installation Complete

10. The login screen appears (shown in Fig. 7.10). Enter the password.

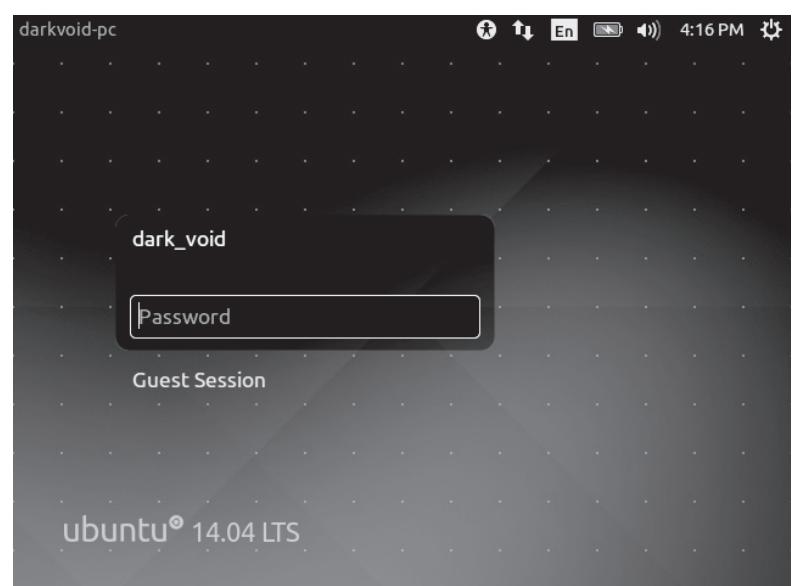
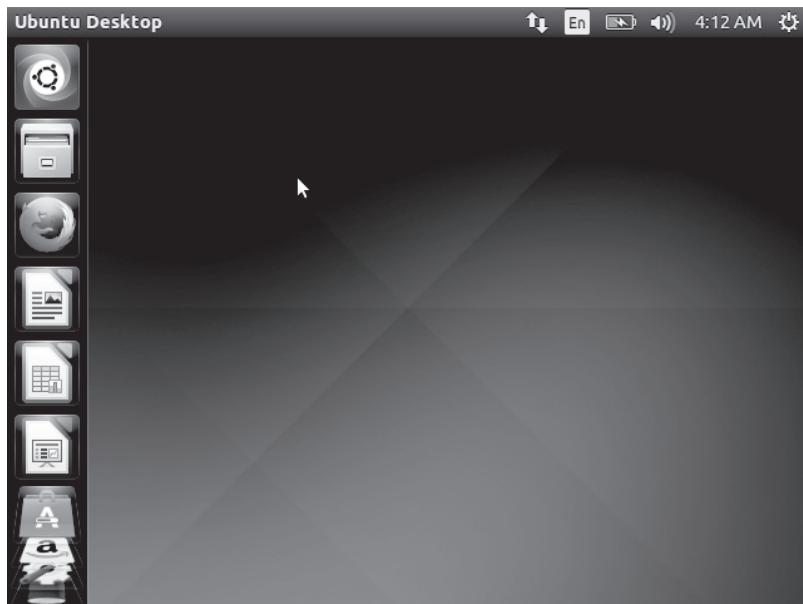


Fig. 7.10 Login screen



11. The desktop is now displayed for the first time.



Notes

Fig. 7.11 Ubuntu Desktop

12. Ubuntu 14.04 LTS(Long Term Support) is now installed.

Precaution

- 1) You should use antistatic mat for using computer.
- 2) You must properly decide disk partitioning.

Learner's Observations

Instructor's signature



Notes

Practical 8

Identify network devices and transmission media.

Objectives

After completion of this practical you will be able to :

- identify various network devices.
- identify the types of cables used to form the network.

Pre-requisite:

- 1) You must have theoretical knowledge of network devices.
- 2) You must have theoretical knowledge of transmission media.

Hardware/Software required

- 1) 2 computers with Windows 7 operating system and network cards / LAN drivers.
- 2) Modem, Hub ,Repeater, Bridge, Router.
- 3) Co-axial cable, twisted pair cable.
- 4) RJ-45

Procedure/Activity

- 1) Identify modem, Hub ,Repeater, Bridge, Router.
- 2) Identify co-axial cable and twisted pair cable.
- 3) Identify RJ-45 for Ethernet.
- 4) Connect the two computers using the cross cables.
- 5) Windows 7 will automatically detect the network when the computers are switched on.

Precaution

- 1) You should use antistatic mat for using computer.

Learner's Observations



Notes

Instructor's signature



Notes

Practical 9

Connect the computers using network topologies and then configuring the network.

Objectives

After completion of this practical, you will be able to:

- form a network using basic network topologies:
 - Bus
 - Star
 - Ring
- configure the network using Windows 7 operating system.

Pre-requisite

- 1) You must have knowledge of network devices and cables.
- 2) You must have knowledge of IP addresses.

Hardware/Software required

- 1) Minimum 4 computers with Windows 7 operating system and network cards / LAN drivers.
- 2) Modem, Hub, Repeater, Bridge, Router
- 3) Co-axial cable or twisted pair cable
- 4) RJ-45
- 5) Printer

Procedure/Activity

- 1) Connect the computer using bus topology i.e. one cable will be used as main trunk and all computers are connected to that main cable.
- 2) Select an appropriate network location on Windows 7. By default Windows 7 will choose Home Group as your network location. You may select your own privacy settings.



- 3) The network has to be now configured in Windows 7. For that click Start → Control Panel → Network and Sharing Centre → Local Area Network.
- 4) Open Connect to a Network by clicking the Network icon in the notification area → Local area Network.
- 5) Appropriate LAN driver should also be installed in computer for Network configuration in Windows.

There two methods for configuring network in Windows7.

- 1) Click on Start → Control Panel → Network and Sharing Centre → Local Area Network.
- 2) Open Connect to a Network by clicking the network icon (or) in the notification area → Local Area Network.

After clicking on Local Area Network, follow the steps given below for manual configuration of IP4 in Windows7 operating system

- a) Click on properties.
- b) Select Internet Protocol Version 4 and click on properties.

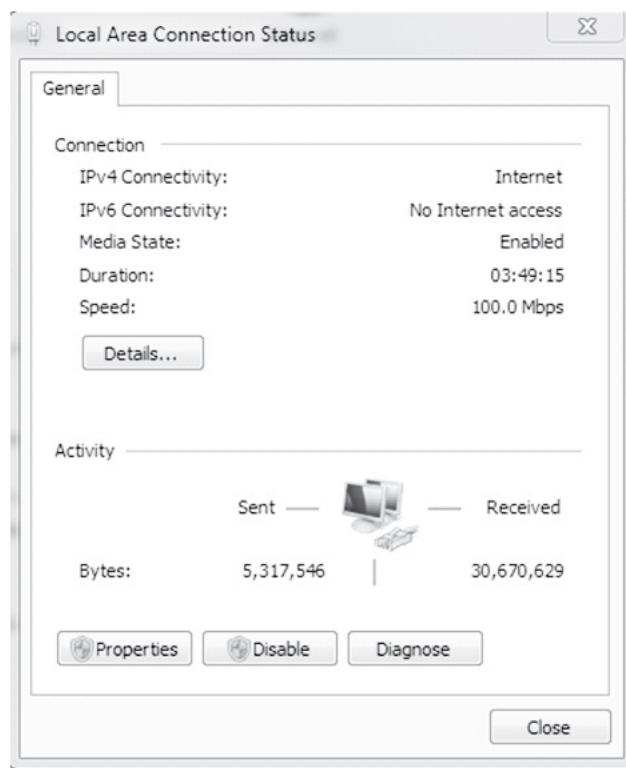
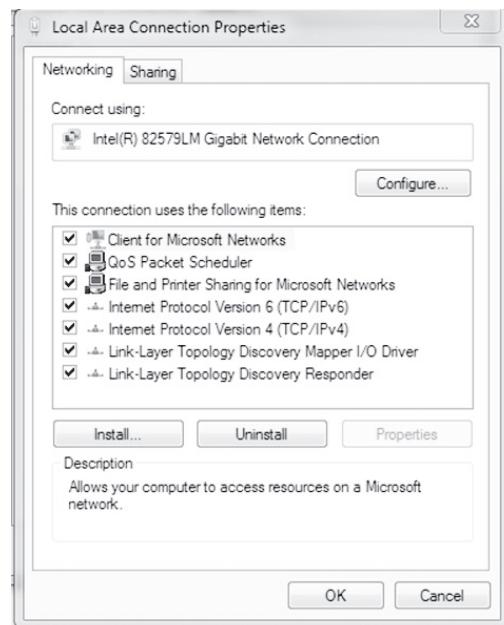
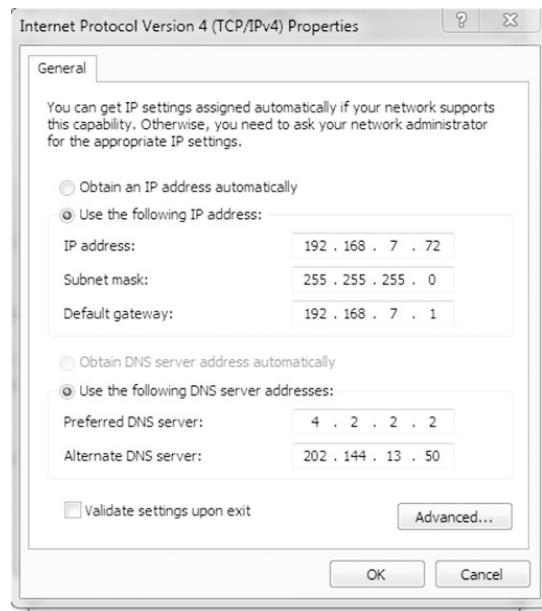


Fig.9.1 LAN Status



Notes

- c) Select “use the following IP address” and enter IP address , subnet mask and default gateway for network configuration.
- d) Select “Use the following DNS server addresses” and enter preferred DNS server and alternate server for network configuration.

**Fig.9.2 LAN properties****Fig.9.3 IPV4 properties**

Now network is configured for wired network connection.

Practical Manual

- 6) Connect a printer to the network and take the prints from all the computers on the network.
- 7) Repeat the same process by connecting the computer in Star and Ring topology. While connecting the computers in star topology, you will have to identify a computer as a server and then connect all the remaining computers to this server. Also connect the printer to the server machine and then take printouts from all machines on the network.



Notes

Precaution

You should use antistatic mat for using computer.

Learner's Observations

Instructor's signature



Notes

Practical 10

Configure the network with computers having Linux (Ubuntu) operating system.

Objective

After this practical, you will be able to configure a Linux (Ubuntu) system for networking.

Pre-requisite

- 1) You must have knowledge of IP addresses.
- 2) You must have knowledge of transmission media and network devices.

Hardware/Software required

- 1) Two or more computers having Ubuntu operating system.
- 2) The computers must also have Network Interface cards.

Procedure

1. Go to Network Connection by selecting system preferences → Network connection



Fig. 10.1 Network connections

**Notes**

2. Select the “Wired” tab and then click on “Auto eth0” and then click “Edit” to check the IPV4 settings.



Fig. 10.2 Wire network connections

3. IPV4 Settings. As shown in the following image select the method as manual if you want to manually enter the DNS settings.



Fig. 10.3 IPV4 settings



Notes

DNS Server address is to be assigned. click on Add button to assign the address, network and gateway addresses. Then provide the DNS server address as shown below and click Apply.



Fig. 10.4 Assigning DNS server address

For example to check the IP address settings.

1. Go to Applications → Accessories → Terminal

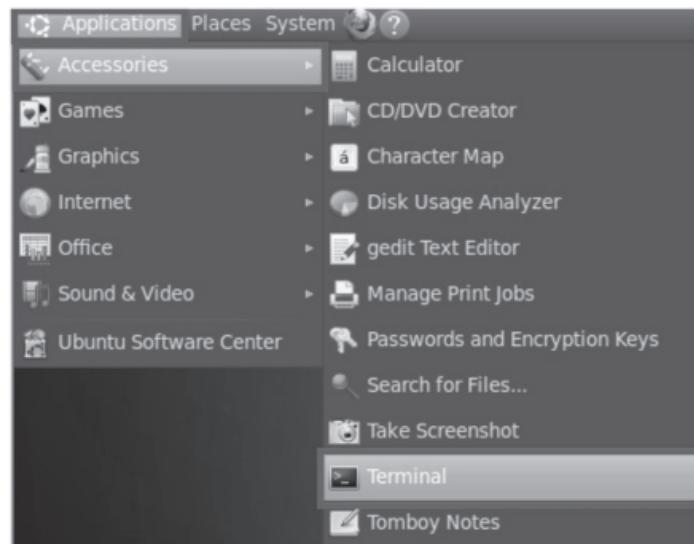


Fig. 10.5 IP address settings

**Notes**

2. Write "sudo ifconfig" (without quotes) command into terminal to find your new address. The inet address broadcast address, and mask address will be shown by Ifconfig command.

A screenshot of a terminal window titled 'root@ubuntu: ~'. The window has a menu bar with 'File', 'Edit', 'View', 'Terminal', and 'Help'. The command 'root@ubuntu:~# sudo ifconfig' is typed into the terminal. The rest of the window is blank.

Fig. 10.6 Sudo command

A screenshot of a terminal window titled 'root@ubuntu: ~'. The window has a menu bar with 'File', 'Edit', 'View', 'Terminal', and 'Help'. The command 'root@ubuntu:~# sudo ifconfig' is typed into the terminal. The output shows two network interfaces: 'eth0' and 'lo'. The 'eth0' interface is highlighted with a yellow box. The output for 'eth0' includes: Link encap:Ethernet Hwaddr 00:0c:29:a3:dc:f3, inet addr: 192.168.74.149 Bcast: 192.168.74.255 Mask: 255.255.255.0, inet6 addr: fe80::20c:29ff:fe0c:a3dc/64 Scope: Link, UP BROADCAST RUNNING MULTICAST MTU: 1500 Metric: 1, RX packets: 10841 errors: 0 dropped: 0 overruns: 0 frame: 0, TX packets: 4799 errors: 0 dropped: 0 overruns: 0 carrier: 0, collisions: 0 txqueuelen: 1000, RX bytes: 13801926 (13.8 MB), TX bytes: 352463 (352.4 KB), Interrupt: 19 Base address: 0x2000. The 'lo' interface includes: Link encap: Local Loopback, inet addr: 127.0.0.1 Mask: 255.0.0.0, inet6 addr: ::1/128 Scope: Host, UP LOOPBACK RUNNING MTU: 16436 Metric: 1, RX packets: 184 errors: 0 dropped: 0 overruns: 0 frame: 0, TX packets: 184 errors: 0 dropped: 0 overruns: 0 carrier: 0, collisions: 0 txqueuelen: 0, RX bytes: 11264 (11.2 KB), TX bytes: 11264 (11.2 KB). The command 'root@ubuntu:~# ' is at the bottom.

Fig. 10.7 Ifconfig command

Precaution

You should use antistatic mat for using computer.



Notes

Learner's Observations

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Instructor's signature



Notes

Practical 11

Connecting a computer with Windows 7 operating system to a wireless network.

Objective

After this practical, you will be able to connect a computer with Windows 7 operating system to a wireless network.

Pre-requisite

- 1) You must have theoretical knowledge of wireless network and its range.

Hardware/Software required

- 1) Two or more computers having Windows 7 operating system and Network Interface cards.
- 2) A wireless network access point / router.

Procedure

1. From Control Panel → Networking and Internet → Network and Sharing Centre → Manage Wireless Networks, then click Add.
2. Choose type of profile you want to create. Select the “Create an ad-hoc network profile” if you want to connect two computers (computer-to-computer) together. Choose “Manually create a network profile” to connect to machine to a wireless router or an access point. A screen will appear similar to the following figure.

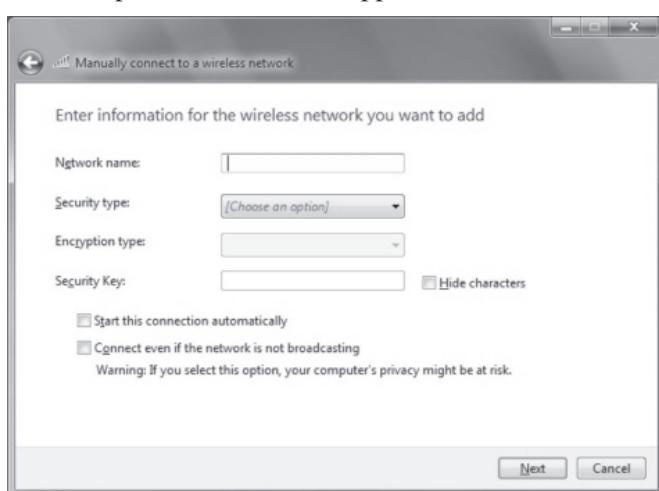


Fig. 11.1 Manually connecting to a wireless network



Notes

Practical Manual

3. Type the name of the access point (also called SSID) in the Network name field, and select the settings.(ex: WAP)
4. Select the **Next** button.
5. When finished, select Close.

Precaution

You should use antistatic mat for using computer.

Learner's Observations

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Instructor's signature



Notes

Practical 12

Configure outlook express for e-mail account.

Objective

After completion of this practical you will be able to configure your outlook express for E-mail account.

Pre-requisite

- 1) You must have knowledge of operating email account.

Hardware/Software required

- 1) A computer with an Internet connection and Microsoft Outlook installed on it.
- 2) Valid E-mail account.

Procedure

1. Open Microsoft Outlook. Now select Accounts under Tools.

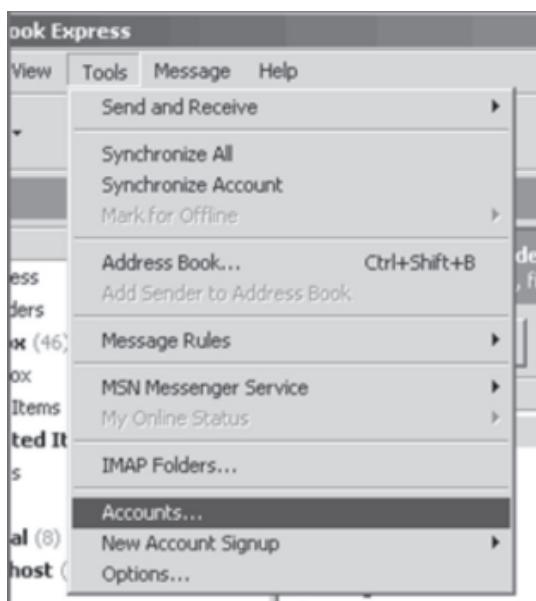


Fig. 12.1 Configuring Outlook Express



Notes

2. Click Mail under Add.

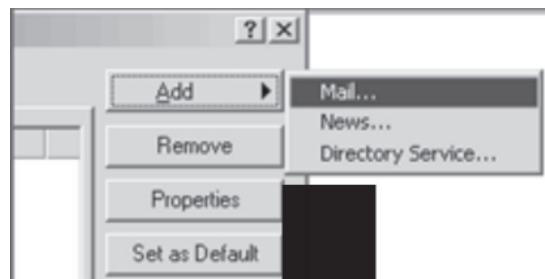


Fig. 12.2 Adding email

3. Enter your user name as you like.
4. Enter the email address.

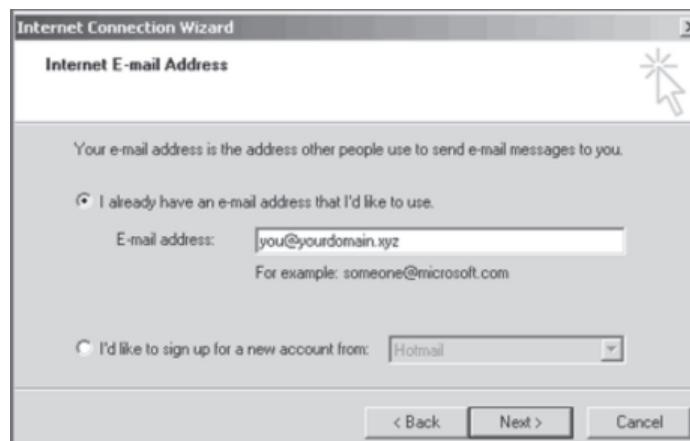


Fig. 12.3 Adding email address

5. Choose server type and enter incoming and outgoing mail servers.

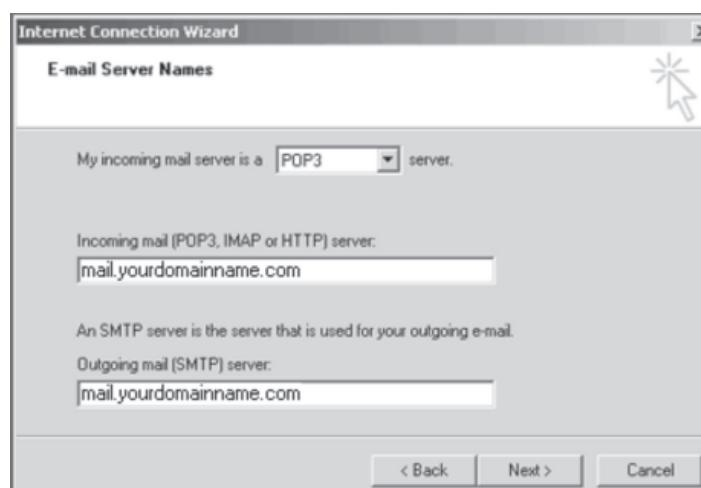


Fig. 12.4 Entering incoming and outgoing mail server details

**Notes**

6. Enter Account Name and password.

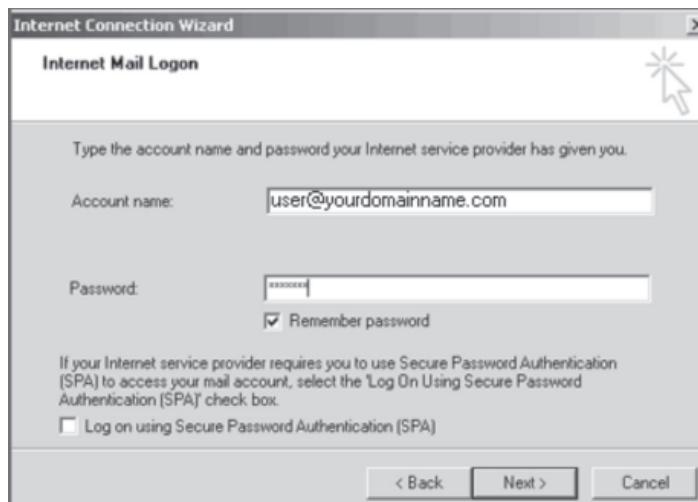


Fig. 12.5 Adding account name and password

7. Next → Finish → Select domain → Properties.

8. Select **My server requires authentication**.



Fig. 12.6 Properties window.

9. Click Ok. Now outlook configured your E mail address.
10. Repeat these steps again to set up multiple accounts.



Notes

Practical Manual

Once you have completed these steps outlook will take some time for receiving all your emails to your Inbox. Once the process is completed your outlook is ready to send/receive any emails.

Precaution

You should use antistatic mat for using computer.

Learner's Observations

Instructor's signature



Notes

Practical 13

Enable sharing of file on a network.

Objective

After completion of this practical you will be able to enable file sharing on a network.

Pre-requisite

- 1) You must have knowledge of IP addresses.

Hardware/Software required

- 1) Two or more computers connected in a network .

Procedure

1. Open Network and Sharing Centre, (go to Control Panel, then Network and Internet, click on Network and Sharing Centre), Select option for Network Discovery and Enable File sharing. Select if you want to share files and Turn on printer sharing.
2. Now do one of the following to share the file:
 - Select **Share** by right clicking the folder you want to share and then choose from the given list all those with whom you want to share, and then press **Share**.
 - In the Public folder on your system, place all files and/or folders to be shared. Click **Start** button, and then click **Documents** to find the Public folder. In the Navigation pane, under **Favorite Links**, click **Public**.

Precaution

You should use antistatic mat for using computer.

Notes

Learner's Observations

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Instructor's signature



Notes

Practical 14

Configure the browser (Internet Explorer 8) on your computer.

Objective

After completion of this practical you will be able to configure the browser (Internet Explorer 8) on your computer.

Pre-requisite

- 1) You must have knowledge of web browser.

Hardware/Software required

- 1) A computer with Internet Explorer 8

Procedure

For configuring Internet explorer (8), Open Internet Explorer → Tools → Pop-up Blocker → Add web site → In blocking Level, Allow pop-ups from secure sites → Close.

1. Pop up management

- If you do not want the pop ups to come up then you can select the blocking level as high.
- If you want to allow pop-ups from secure sites then keep the level as low: as shown in Fig. 14.1.



Fig 14.1 Pop-up Blocker Setting



- 2. Clean up / file system Management** – In order to experience better browsing it is recommended to keep deletion of copies at regular intervals (1 week).

You should also delete temporary internet files.

Goto Cookies: Tools → Internet Options. In Browser History → Delete

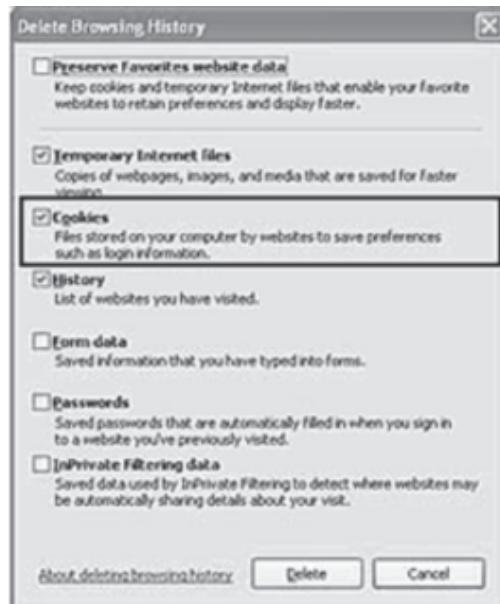


Fig 14.2 Deleting Browsing History

- 3. Security Management** - Use security settings tab to define the level of security you want while browsing.

Choose Custom Level Security in Internet Options under Tools menu.

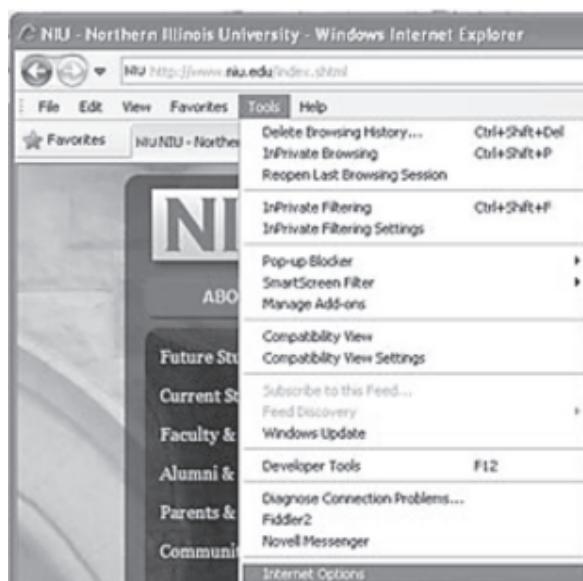


Fig 14.3 Security Settings

**Notes****Fig 14.4** Internet options - customs level

Select level by customising the level as shown in Fig. 14.4.

SSL Issue: While exploring a secured website on Internet Explorer 8 sometimes the message **Page cannot be displayed** popped up. To resolve this problem go to internet options of tools menu and select the content tab, after that select Clear SSL state button and press OK.

Precaution

You should use antistatic mat for using computer.

Learner's Observations

Instructor's signature



Notes

Practical 15

Connecting your Wi-Fi TV to a Wi-Fi PC.

Objective

After completion of this practical you will be able to connect your TV to a PC.

Pre-requisite

- 1) You must be able to use wireless devices.

Hardware/Software required

- 1) A Wi-Fi enabled computer /Laptop
- 2) A Wi-Fi network connection
- 3) A TV

Procedure

Connecting Your TV to a PC

Now-a-days with smart TVs one can browse the Internet in the same way as on computers and are able to access all online features. Wireless technology provides simple solutions to connect your TV to a personal computer.

Connecting Wi-Fi PC and Wi-Fi TV

If you have Wi-Fi network and having a television with Wi-Fi and personal computer with Wi-Fi then you can connect both of them using the following steps:

1. Turn on the system and television.
2. Enable the Wi-Fi mode and select Wi-Fi as its input on the television.
3. Activate the Wi-Fi mode on your system.
4. On your computer, select Wi-Fi connection to the TV. To connect the television with your Wi-Fi, if required provide the security key or password and re-boot the network.



5. Four-digit Pin that is generated by television is to be feed on the system. After this a connection is established between television and system.
6. Adjust screen resolution if needed.
7. Select extend desktop onto this monitor.
8. Windows desktop screen will be displayed on television. If required adjust the screen resolution.
9. If required drag the open windows of the system on television.

Precaution

You should use antistatic mat for using computer.

Learner's Observations

Instructor's signature



Notes

Practical 16

Creating a system repair disc and restoring data.

Objectives

After completion of this practical you will be able to

- create a system repair disc
- restore system files

Pre-requisite

- 1) You must be able to use window explorer.

Hardware/Software required:

- 1) A computer
- 2) A CD ROM

Procedure

- 1) Click Start → All programs → Control Panel → Adjust your Computer's Settings → Backup and Restore option.
- 2) Click on Create System Repair Disc. You may be asked for username and password.
- 3) System repair point will be created.
- 4) To restore system files and settings:
 - (a) Click Open System restore.
 - (b) Enter username and password, if asked.
 - (c) Choose the recommended restore point.
 - (d) Review the restore point and click OK.

Precaution

You should use antistatic mat for using computer.

Learner's Observations

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Notes

Instructor's signature



Notes

Practical 17

Troubleshooting a monitor.

Objectives

After completion of this practical you will be able to

- troubleshoot a monitor if it is not working properly.
- change the display settings of the monitor.

Pre-requisite

- 1) You must have theoretical knowledge of monitors.
- 2) You must have knowledge of monitor's ports.

Hardware/Software required

- 1) A Desktop computer

Procedure

- 1) First check whether the monitor and the power switch is ON.
- 2) Check that the monitor is not in power saving or sleeping mode.
- 3) Check the port connecting the monitor to the CPU.

To change the display settings:

1. Select Start → Control Panel → Display.
2. Click Change Display Settings.
3. Change the resolution, orientation, text size etc. from the window that appears.
4. Click Apply to apply the changed settings and OK to close the dialog box.

Precaution

You should use antistatic mat for using computer.

Learner's Observations

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Instructor's signature



Notes

Practical 18

Troubleshooting a printer.

Objective

After completion of this practical you will be able to troubleshoot a printer if it is not working properly.

Pre-requisite

- 1) You must have theoretical knowledge of printers.
- 2) You must have knowledge of printer drivers.

Hardware/Software required

- 1) A computer
- 2) A printer installed on the computer

Procedure

- 1) Check the cable connecting the CPU to the printer.
- 2) Check whether the printer is ON and the paper is loaded.
- 3) Check whether there is any paper jam. If it is so, remove the paper jam and then restart the printer.
- 4) Update the printer driver if required.
- 5) To test whether the printer is working properly, click Control Panel -> Devices and Printers. Choose your printer and click on Print test Page.
- 6) If test page is not printed, click Open Devices and Printers -> select Printer-> Right click Printer and choose Troubleshoot option. The problem will be detected and troubleshooted.

Precaution

You should use antistatic mat for using computer.

Learner's Observations

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Instructor's signature