IT WORKSHOP
Lab Manual

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Class: B. Tech II-I Semister

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<u>CERTIFICATE</u>

This is to certify that this manual is a bonafide record of practical work in the **IT Work Shop** in **First Semester of II year B.Tech (CSE) programme** during the academic year **2019-20**. This book is prepared by **Mr.RamaKrishna(Assistant Professor), Mrs.Anitha(Assistant Professor),Mrs.K.Anusha (Assistant Professor)** Department of Computer Science and Engineering.

Content IC   **HOD**   **Director**

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PREFACE

This book entitled "**IT WORKSHOP Lab**" is intended for the use of Second year First semester (i.e, II-I) B.Tech(CSE) students of Marri Laxman Reddy Institute of Technology and Management, Dundigal, Hyderabad. The main objective of The IT Workshop is a training lab course to get training on PC Hardware, Internet & World Wide Web, and Productivity tools for documentation, Spread sheet computations, and Presentation.

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ACKNOWLEDGEMENT

It was really a good experience, working with *It Workshop* lab. First we would like to thank Mr.K.Abdul Basith, Assoc.Professor, HOD of Department of Computer Science and Engineering, Marri Laxman Reddy Institute of technology & Management for his concern and giving the technical support in preparing the document.

We are deeply indebted and gratefully acknowledge the constant support and valuable patronage of Dr.R.Kotaiah, Director, Marri Laxman Reddy Institute of technology & Management for giving us this wonderful opportunity for preparing the *It Workshop* laboratory manual.

We express our hearty thanks to Dr.K.Venkateswara Reddy, Principal, Marri Laxman Reddy Institute of technology & Management, for timely corrections and scholarly guidance.

At last, but not the least I would like to thanks the entire CSE Department faculties those who had inspired and helped us to achieve our goal.

<div align="right">

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Mrs.K.Anusha

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GENERAL INSTRUCTIONS

1. Students are instructed to come to It Workshop laboratory on time. Late comers are not entertained in the lab.

2. Students should be punctual to the lab. If not, the conducted experiments will not be repeated.

3. Students are expected to come prepared at home with the experiments which are going to be performed.

4. Students are instructed to display their identity cards before entering into the lab.

5. Students are instructed not to bring mobile phones to the lab.

6. Any damage/loss of system parts like keyboard, mouse during the lab session, it is student's responsibility and penalty or fine will be collected from the student.

7. Students should update the records and lab observation books session wise. Before leaving the lab the student should get his lab observation book signed by the faculty.

8. Students should submit the lab records by the next lab to the concerned faculty members in the staffroom for their correction and return.

9. Students should not move around the lab during the lab session.

10. If any emergency arises, the student should take the permission from faculty member concerned in written format.

11. The faculty members may suspend any student from the lab session on disciplinary grounds.

12. Never copy the output from other students. Write down your own outputs.

INSTITUTION VISION AND MISSION

VISION

To establish as an ideal academic institutions in the service of the nation, the world and the humanity by graduating talented engineers to be ethically strong, globally competent by conducting high quality research, developing breakthrough technologies, and disseminating and preserving technical knowledge.

MISSION

To fulfill the promised vision through the following strategic characteristics and aspirations:

➢Contemporary and rigorous educational experiences that develop the engineers and managers.

➢An atmosphere that facilitates personal commitment to the educational success of students in an environment that values diversity and community.

➢Undergraduate programs that integrate global awareness, communication skills and team building.

➢Education and Training that prepares students for interdisciplinary engineering research and advanced problem solving abilities.

DEPARTMENT VISION AND MISSION

Department Vision:

To empower the students to be technologically adept, innovative, self-motivated and responsible global citizen possessing human values and contribute significantly towards high quality technical education with ever changing world.

Department Mission:

- To offer high-quality education in the computing fields by providing an environment where the knowledge is gained and applied to participate in research, for both students and faculty.

- To develop the problem solving skills in the students to be ready to deal with cutting edge technologies of the industry.

- To make the students and faculty excel in their professional fields by inculcating the communication skills, leadership skills, team building skills with the organization of various co-curricular and extra-curricular programmes.

- To provide the students with theoretical and applied knowledge, and adopt an education approach that promotes lifelong learning and ethical growth.

Program Educational Objectives:

PEO1: Establish a successful professional career in industry, government or academia.

PEO2: Gain multidisciplinary knowledge providing a sustainable competitive edge in higher studies or Research.

PEO3: Promote design, analyze, and exhibit of products, through strong communication, leadership and ethical skills, to succeed an entrepreneurial.

Program Specific Outcomes

PSO1: Applications of Computing: Ability to use knowledge in various domains to provide solution to new ideas and innovations.

PSO2: Programming Skills: Identify required data structures, design suitable algorithms, develop and maintain software for real world problems.

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PROGRAM OUTCOMES

The Program Outcomes (POs) of the department are defined in a way that the Graduate Attributes are included, which can be seen in the Program Outcomes (POs) defined. The Program Outcomes (POs) of the department are as stated below:

a : An ability to apply knowledge of Science, Mathematics, Engineering & Computing fundamentals for the solutions of Complex Engineering problems.

b : An ability to identify, formulates, research literature and analyze complex engineering problems using first principles of mathematics and engineering sciences.

c : An ability to design solutions to complex process or program to meet desired needs.

d : Ability to use research-based knowledge and research methods including design of experiments to provide valid conclusions.

e : An ability to use appropriate techniques, skills and tools necessary for computing practice.

f : Ability to apply reasoning informed by the contextual knowledge to assess social issues, consequences & responsibilities relevant to the professional engineering practice.

g : Ability to understand the impact of engineering solutions in a global, economic, environmental, and societal context with sustainability.

h : An understanding of professional, ethical, Social issues and responsibilities.

i : An ability to function as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.

j : An ability to communicate effectively on complex engineering activities within the engineering community.

k : Ability to demonstrate and understanding of the engineering and management principles as a member and leader in a team.

l : Ability to engage in independent and lifelong learning in the context of technological change.

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Course Objectives

- To assemble and disassemble a computer.
- To solve hardware and software problems.
- To develop project documentation using ms word and latex .
- To work with excel spread sheet for different calculations.

Course Outcomes

- Apply knowledge for computer assembling and software installation.
- Able to understand how to solve the trouble shooting problems.
- Apply the tools for preparation of PPT, Documentation and
- Able to understand the Linux Environment.

LEARNING OUTCOMES

On the successful completion of the lab student will be capable of

1. Be able to build their own PC and able to solve Software and Hardware problems.
2. Demonstrate proficiency in Microsoft Office and Windows.
3. To acquire hands-on experience in OS installation.
4. Be able to assist in the creation of an effective Power point presentation.
5. Be able to assist in the creation of an effective Excel sheets.

Content of Lab Experiments

<u>**Problem 1:**</u>

Every student should identify the peripherals of a computer, components in a CPU and its functions. Draw the block diagram of the CPU along with the configuration of each peripheral and submit to your instructor. Every student should disassemble and assemble the PC back to working condition.

i). <u>AIM:</u> To Identify the peripherals of a computer, components in a CPU and its functions and to draw the block diagram of the CPU along with the configuration of each peripheral.To assemble an disassemble the PC back to working condition..

Hardware Requirements: Cabinet, Hard Disk, CD/DVD Drive, Floppy Drive, Monitor, Mouse, Keyboard, Mother Board, Socket 478, Processor, Heat Sink Fan, RAM Slots, PCI Slot, AGP Slots, CMOS Battery, BIOS, North Bridge, South Bridge, IDE Slots, SMPS, ATX power Connector.

Software Requirements: Not Required

<u>INTRODUCTION TO COMPUTER:</u>

A computer is a programmable machine or computer is an electronic device which takes the input information from the input device, process or executes the input in Processor or CPU and generates the output information through output devices. Computer enables arithmetic computations, data processing, information management (storage) and knowledge reasoning in an efficient manner.

BLOCK DIAGRAM OF COMPUTER
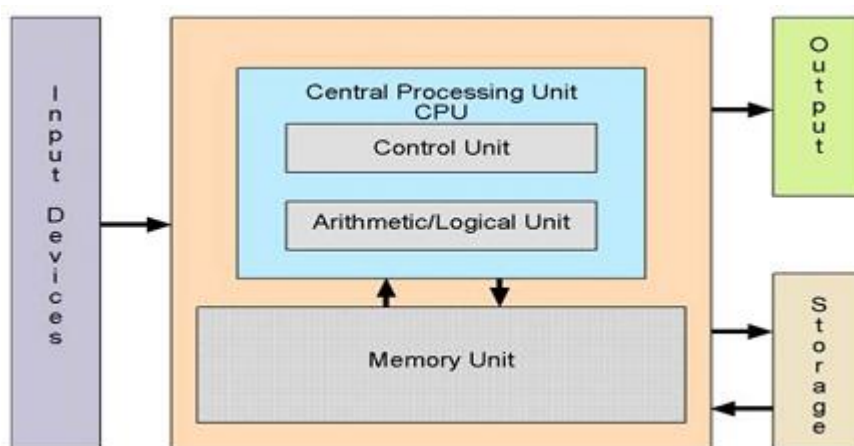
Basically the computer system has three major components. These are

1. Central Processing Unit (Processor)
2. Input and Output Unit.
3. Memory Unit (Main Memory and Auxiliary storage).

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1. CENTRAL PROCESSING UNIT:

The Central Processing Unit takes the input data from the input devices and processes it according to the set of instructions. After that generate the output and sends the output to the output devices. The CPU is composed three parts. These are

a) ALU:

Arithmetic Logical Unit (ALU) is used to do the arithmetic operations on data by adding, subtracting, dividing, multiplying and incrementing and decrementing.

It is also used for Logical operations like AND, OR, NOT and X-OR.

b) CU:

Control unit is mainly used for generating the electronic control & timing signals for program execution. It controls all the operations of the computer.

c) Registers:

CPU also possesses the memory to hold the data temporarily during the execution of an instruction. These are small memory locations in CPU.

2. INPUT AND OUTPUT UNIT:

INPUT DEVICE:

Input devices accept the data and instructions from the user.

Ex: Mouse, Scanner, Keyboard, joysticks, digital cameras, microphones, etc…

OUTPUT DEVICE:

Output devices return the processed data back to the user.

Ex: Monitor, Printer, etc…

3. MEMORY UNIT:

Memory is like an electronic scratch pad inside the computer. It is a storage unit to hold the data.

In the computer the data will be stored and retrieved in the form of bits and bytes. The byte will store a single character such as a letter of the alphabet or a numeral.

a)   8 BITS = 1 BYTE

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b) 1024 BYTES = 1 KB

c) 1024 KB = 1 MB

d) 1024 MB = 1 GB

e) 1024 GB = 1 TB.

The memory can be classified into two categories. These are

I. primary or main memory

II. Secondary or auxiliary memory

I. PRIMARY OR MAIN MEMORY:

Primary memory is the fastest memory in a computer. This memory is primarily (temporarily) used to store the data and programs during the execution of a program.

Primary memory is classified into two categories called

a) Random Access Memory (RAM)

b) Read Only Memory (ROM)\

II. SECONDARY OR AUXILIARY MEMORY:

Secondary memory used to store the data permanently. The data will be stored in storage devices. Storage devices are like Magnetic disks, Hard disks, Floppy disks, Compact disks

IDENTIFICATION OF PERIPHERALS:

1. **Cabinet:**

It is used to install all hardware devices like (Mother Board, SMPS, HDD, CD ROM, and FDD). It has Start, Restart Button, Led's, Audio and USB Connecters are available at front side.
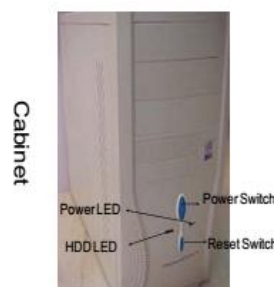
2.   The Mother Board/ System Board

In Personal Computers, a **Mother Board** is the central printed circuit Board (PCB) in many modern computers and holds many of the crucial components of the system, providing connectors for other peripherals. It is also called as main board or system board.

Classification of Mother Boards:

1) **Integrated Mother Boards** have all the peripheral device slots, input output ports, serial and parallel ports are mounted on the board.

2) **Non-Integrated Mother Boards** have all peripheral device slots and input output ports,, serial and parallel ports are connected using expansion Boards.
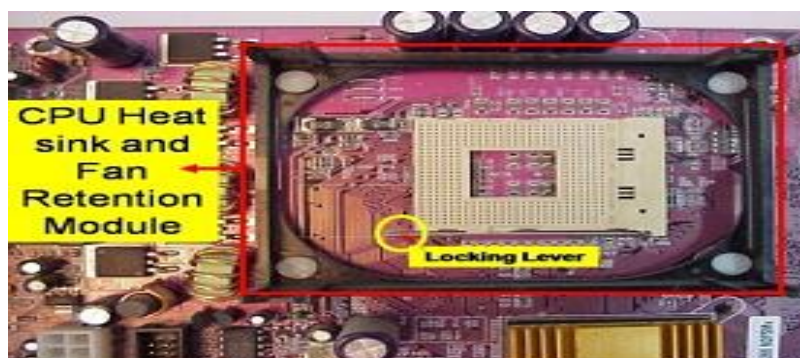
List of Mother Board Manufactures are: Intel, Zebronics, Acer Inc.,VIA Technologies, etc.
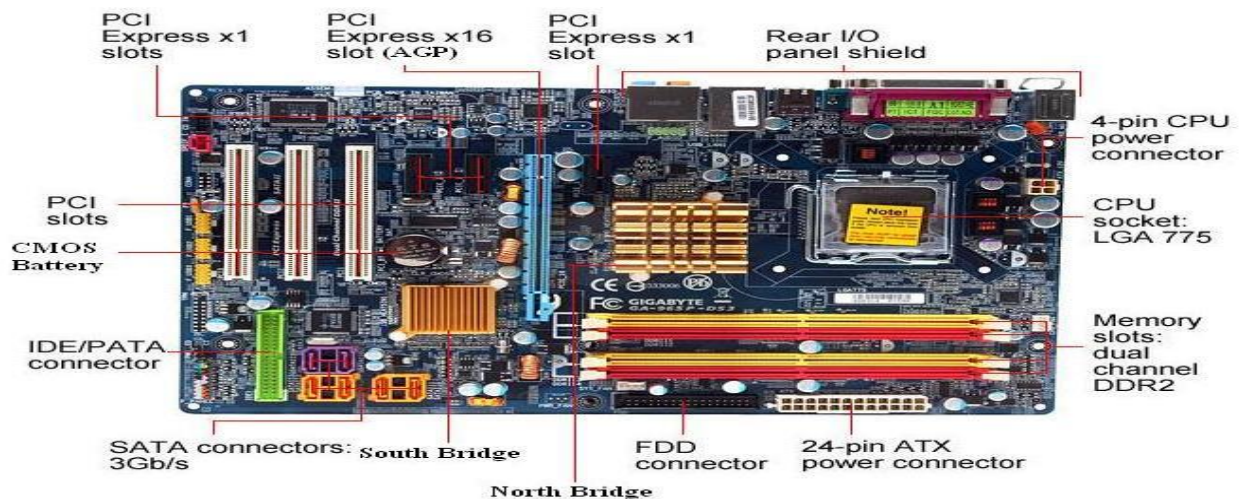
Mother Board

Mother Board Parts:

a) **Socket 478:** It has 478 pin slots to place the CPU in it and above the CPU place the Heat Sink Fan to cool the processor when it generates the heat and we can fix the fan with locks.

b) CPU or Processor

CPU The central processing unit contains the heart of any computer, the processor. The processor is fitted on to a Mother Board. The Mother Board contains various components, which support the functioning of a PC. **Clock Speed** measures how fast a processor completes operations, usually measured in megahertz and gigahertz. A 1.8GHz processor runs at 1,800,000,000 cycles per second. List of CPU Manufacturers are: AMD, INTEL, Samsung, IBM, Transmeta, etc
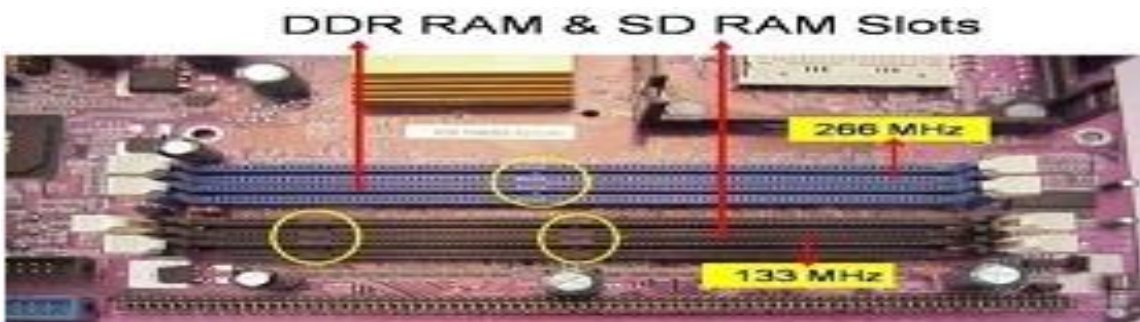

Heat Sink Fan

c) RAM Slots and RAMs

RAM Slots are used to place the RAM Cards. RAMs are used to increase the processing speed the system to run application more effectively, and it has temporary memory. We have two types of RAMs

i) SD RAM (Synchronous Dynamic), it has two Gaps/Notche
ii) DDR RAM (Double Data Rate), it has one Gap/Notch

DDR RAM

SD RAM

Manufactures of RAM's are Transcend, Kingston, Micron, Hynix, etc.

d) North Bridge:

It is also called as controller. It converts electronic signals to binary values and binary values to electronic signals.

e) South Bridge:

It is controls major components of mother board and it is a back bone of the input out devices. It is communicates PCI slots, IDE-1, IDE-2, floppy connecter, BIOS chip.


f) CMOS (Complementary Metal Oxide Semiconductor) Battery

Computer is using a coin shape battery. It generates the clock signal and it manages system time continuously.

g) Primary & Secondary(IDE-1 & IDE-2) :

Mainly there are three IDE slots and cables i.e. IDE-1 (Primary) to connect Hard Disk Drive having 40 pin slot and 80 wire cable, IDE-2 (Secondary) to connect CD/DVD Drive having 40 pin slot and 40 wire cable, IDE-3 (Tertiary) to connect Floppy Drive having 35 pin slot 3.5inch wire with a cut in middle. But present mother boards does not have IDE-3 slot.
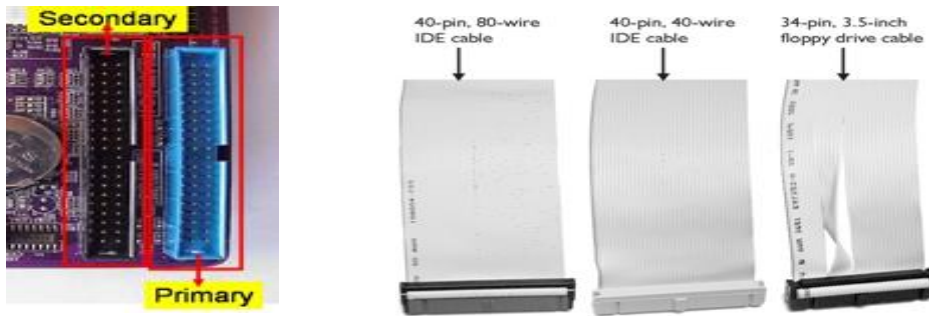
h) Input & Output ports :

I/O ports are used to connecting I/O device such as key boards, mouse, monitor, printer, scanner, speakers etc...
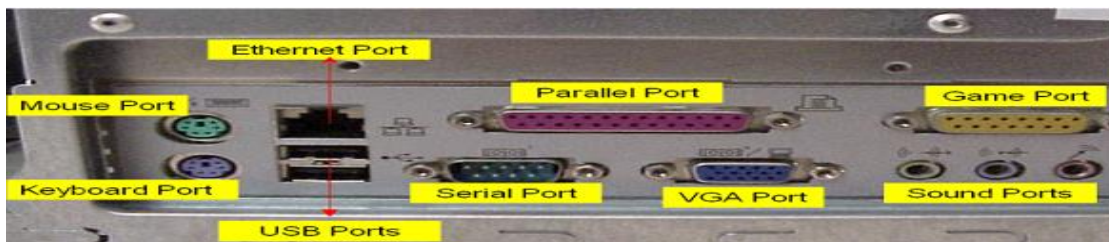
i) AGP Slot & AGP Card :

Accelerated Graphic Port (AGP) Slot is used install the AGP card. AGP back view same as VGA port (15-pins) and used to connecting the monitors.

j) PCI(Expansion) Cards, PCI Slots :

PCI (Peripheral Component Interconnect) slots are used to place the PCI cards such as LAN (Ethernet) Card, Sound Card, TV Tuner Card, etc.

    LAN Card   **Sound Card**   **TV Tuner Card**

k) BIOS Chip :

BIOS (Basic Input Output System) controls how the operating system and hardware wok together and manages all the hardware devices installed in mother board.

l) ATX Power connecter Slot:

ATX (Advanced Technology Extended) power connector slot used to place the ATX power connector from SMPS to supply the power to motherboard.

3. SMPS (Switched mode Power Supply)

To supply the power to all the components inside the cabinet and it is a case that holds a transformer, voltage control and fan.

4. HDD (Hard Disk Drive)

HDD is a device for storing and retrieving digital information, primarily computer data. It consists of rotating discs (often referred to as platters), coated with magnetic material and with magnetic heads arranged to write data to the surfaces and read it from them.

List of Manufacturers of HDD Devices are: Hitachi, Samsung, Toshiba, Seagate Technology

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5. CD-ROM Drive/ DVD ROM Drive

CD Drive the most common type of removable media.

The common types are: CD-ROM, CD-RW, CD-R, DVD, DVD-ROM., DVD-RW, DVD-R

6. Different Screws Used:

A Computer system has three kinds' screws

   i)   Mother Board Screws (Small Size)
   ii) HDD, CD/DVD, FDD Drive Screws (Medium Size)
   iii) Outer screws to fix sides of cabinet (Large Size)

Result: Introduction to computers and Identification peripherals task completed.

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AIM: TO assemble and disassemble the system

Hardware Requirements: Cabinet, Hard Disk, CD/DVD Drive, Floppy Drive, Monitor, Mouse, Keyboard, Mother Board, Processor, Heat Sink Fan, RAM Cards, PCI Cards, AGP Card, CMOS Battery, IDE cables, SMPS, ATX power Connector.

Software Requirements: Not Required

Safety Precautions:

1. Beware of electrostatic discharge (ESO)
2. Build computer on a hard surface, away from concepts.
3. Wear shoes and the short sleeved cotton wear.
4. Use Phillips, head screw driver.
5. Keep the components away from moisture.
6. Avoid using pressure while installing.

Steps for Assembling:

1. Setting the cabinet ready.
2. Preparing to fit the components.
3. Fitting the mother board.
4. Fitting the RAM, processor and cooler.
5. Installing PCI cards.
6. Fitting the hard disk and floppy drive.
7. Installing the CD ROM drives.
8. Connecting the ribbon cables.
9. Powering the drives and mother board.
10. Connecting the cables for the case front panel.
11. Final check.

Getting the Cabinet ready:-

1. Check how to open the cabinet and determine where to fix the components.
2. Determine if the case has the appropriate risers installed.


Preparing to fit the Components:

1.
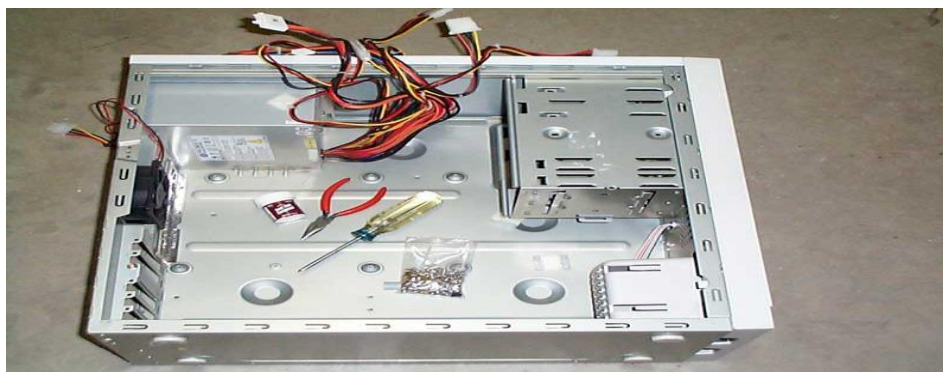
Network adapter drive.

2. Floppy disk drive.

3. BUS cables.

4. Hard disk.

5. CD-ROM Drive.

6. RAM

7. CPU

8. Heat sink / cooler / fan.
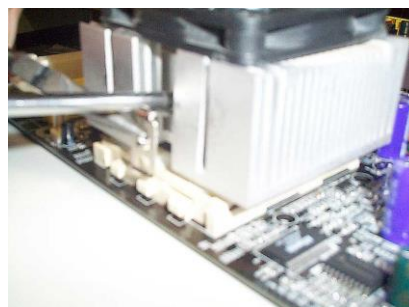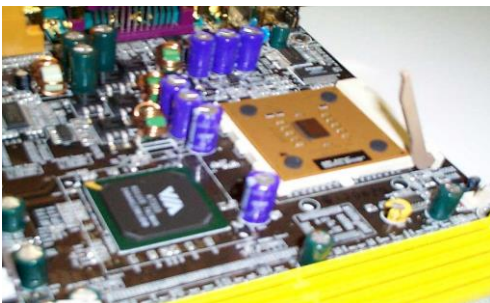
9. Mother board.

10. Screws.

Fitting the Mother board:

1. Line up the patch on the motherboard with the appropriate holes in the block panel I/O shield of the case.

2. Check the points where you and to install

3. Install them and make the mother board sit on them and fix screws if required
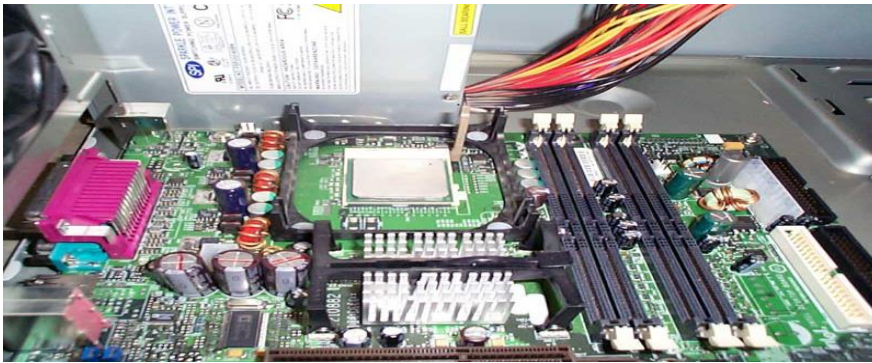
Fitting the processor:

1. Raise the small lever at the side of the socket.

2. Notice that there is a pin missing at one corner, determine the direction to fit in the processor.

3. You should not force the CPU. When inserting it. All pins should slide smoothly into the socket.

4. Lock the lever back down.

5. Install the heat sink over it (Different type for each processor). Heat sink / CPU fan.

Fitting the RAM:

1. The RAM must be suitable for motherboard.

2. There are currently 2 types of RAM available.

        a) SD RAM.

        b) DDR RAM.

3. The mother board's chipset determines which type of RAM may be used.
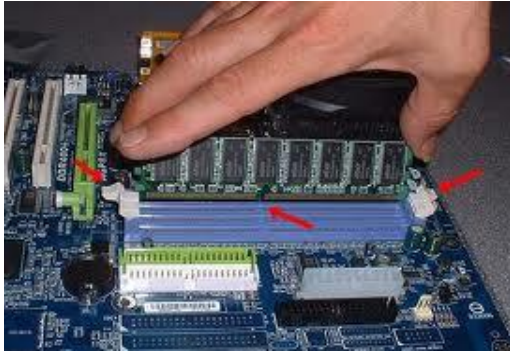
Installing the PCI Cards:

1. Most of the cards are inbuilt these days.
2. Network Interface Cards, Sound Cards etc. are fitted into PCI slots.

Fitting the hard disk and Floppy disk:

1. Place the floppy and hard disks in their slots.
2. Leave some space above HDD to prevent heat building.
3. Check the jumper configuration.
4. Fix the screws.

Installing the CD-   **ROM Drives:**

1. CD-ROM drive is similar to installing a hard disk.
2. 1ST check that the jumper configuration is correct.
3. Fix the screw.

Connecting the BUS Cables, power connectors:-

1. Attach the long end of the cable to the IDEU connector on the motherboard first.
2. The red stripe on the IDE cable should be facing the CD Power.

Final Check:-

1. Mother board jumper configurations are the settings for the processor operator.
2. Drive jumper settings, master/ slave correct?
3. Is the processor, RAM modules and plug in cards finally seated in their sockets?
4. Did you plug all the cables in? Do they all fit really?
5. Have you frightened all the screws in plug- in cards or fitted the clips?
6. Are the drive secure?
7. Have u connected the power cables to all driver?

Result: Introduction to computers and Identification peripherals task completed. Assembling and disassembling procedure is successfully completed.

Viva Questions:

1)   What is a computer?
Ans: Computer is a electronic device which receive, stores ,process the data and gives output

2)   What are the different functions of a computer?
Ans: A computer does the following functions;
a) Accepting data
b) Processing Data
c) Storing Data
d) Displaying Data

3)   How a minicomputer different from a mainframe?
Ans: Minicomputer is a midsized multiprocessing and multi user computer. It is also called mid-range server. But mainframes are huge computers, most commonly occupying entire rooms or floor. It is highly costly.

4)   What is Super computer?
   Ans: The fastest type of computer. Supercomputers are very expensive and are employed for specialized applications that require immense amounts of mathematical calculations. For example, weather forecasting requires a supercomputer. Other uses of supercomputers include animated graphics, fluid dynamic calculations, nuclear energy research, and petroleum exploration.

5)   Differentiate Input and Output device.
Ans: Input devices are used for giving input to the computer. But output devices are used to get the result back from the computer. The examples of input devices are keyboard, mouse, scanner, digital camera atc...whereas output devices include monitor, printer, projector etc....

6)   What is a storage device? What is the common classification?
Ans:Storage devices are used to store data in the computer. The different types of storage devices are;
a) Magnetic Devices.
b) Optical Devices.
c) Solid-State Storage Devices.

7)   What do you mean by a processing device? What are the various types of processing devices?
Ans:The main function of a computer is to process data. The various types of processing device in a computer are;
a) Microprocessor
b) Chipset
c) BIOS

8)   Differentiates Serial and Parallel port.
Ans:Serial port and parallel port are used for transferring data in/out of the computer. In serial port transmission only 1 bit is transmitted at a time. Most serial ports on personal computers conform to the RS-232C or RS-422 standards. A parallel interface for connecting an external device such as a printer. On PCs, the parallel port uses a 25-pin connector (type DB-25) and is used to connect printers, computers and other devices that need relatively high bandwidth. It uses parallel transmission of data.

9) What is an interface?
Ans:These are the communication channel that enables your computer to exchange information with various devices.

10) What is a microprocessor?

Ans:The most important electronic component on the computer. It is a programmable logical device for processing data. In the world of personal computers, the termsMICROPROCESSOR and CPU are used interchangeably.

11) What are the factors affecting the speed of the microprocessor?

Ans:The following are the factors affecting the speed of the microprocessor.

a) Number of instructions build in the processor.

b) Bandwidth

c) Clock Speed

d) Number of transistors inside the processor

12) What are the differences between Multitasking and Multiprocessing?

Ans: Multitasking- Enables the processor to do multiple programs simultaneously by fast switching through the programs. Here doesn't have the involvement of multiple processors.

Multiprocessing- Enables the processor to do multiple programs simultaneously by the use of multiple processors.

13) What the difference between FSB and BSB?

Ans:Front Side Bus. Another name for the system bus. The Front Side Bus connects the CPU to main memory. A microprocessor bus that connects the CPU to aLevel 2 cache is called Back Side Bus. Typically, a backside bus runs at a fasterclock speed than the Front Side Bus.

14) What is CISC and RISC?

Ans:Reduced Instruction Set Computer (RISC) and Complex Instruction Set Computer (CISC) are two philosophies by which computer chips are designed. RISC became a popular technology buzzword in the 1990s, and many processors used in the enterprise business segment were RISC-based.

15) What is full name of AMD?

Ans:Advanced Micro Devices.

16) What is Heat Sink? What is its use? If it is not in the system what will happen?

Ans:A heat sink is a component used to lower the temperature of a device.It is most commonly there on the microprocessor. If it is not properly fixed the system, the system will shutdown automatically to prevent further damage to the processor.

17) A CPU fan should be placed in system. Why?

Ans:To make the system cool and more functioning.

18) What is Upgrading a microprocessor? Why we have to do it?

Ans:Upgrading a microprocessor is just physically replacing a processor with a new one. Before doing so we have to make sure that the processor we want to use for your upgrade is physically compatible with the socket on your computer's motherboard. We also have to make sure that the motherboard has the internal logic to support the processor.

19) What is main memory in a computer?

Ans:The main memory in a computer is called Random Access Memory. It is also known as RAM. This is the part of the computer that stores operating system software, software applications and other information

for the central processing unit (CPU) to have fast and direct access when needed to perform tasks.

20) What is Cache memory? What is the advantage if a processor with more cache memory you are using?
Ans:Cache memory is the memory area between RAM and Processor. If cache memory increases the speed of the system will also improved.

21) What is the name of the printed circuit board?

Ans.Motherboard

22) Which Component of pc maintains data and time

Ans:CMOS

23) What is the name of the card that controls read,write head and motor in the hard disk

Disc Controller Card

24) Which of the following retains the information it's storing when the power to the system is turned off?

ROM

25) Acronym of HDD?

Hard Disk Drive

26) How many bytes a sector of hard disk holds?

512 Bytes

27) What does FDISK do?

creates partitions on the hard drive

28) What is BIOS an acronym for?

basic input output system

29) What does the acronym bits stand for?

Binart Digit

30) Today's PC use what type of RAM..?

DDR SDRAM

31) What is memory bank?
Ans: Sets of physical memory modules is referred to as memory banks. A memory bank serves as a repository for data, allowing data to be easily entered and retrieved.

32) What we need to consider before connecting a memory to the system?
Ans: a)   Capacity of the RAM required
 b)   Check if installed memory is supported by motherboard and processor
 c)   Form factor of the RAM   d)   Type of RAM needed   e)   Warranty of the RAM

33)What is Upgrading the memory?
Ans: Adding a memory module to the existing bank on the available slot or replacing the previous one with the increased memory size is also called upgrading memory. This will surely increase the performance of the computer.

34) What is BIOS beep code? What it does mean?
Ans:BIOS beep codes are the signs of different issues of the computer. The beep code may vary depends on the manufacture of BIOS. For example in case of Award BIOS the beep code will be,
1 long beep- shows memory problem **1 long beep and 2 short beeps**- failure of DRAM parity
1 log beep and 3 short beeps- signifies Video error
Continuous beep- signifies failure in memory or Video memory.

35) What is RDRAM?
Ans:Short for **R**AMBUS **DRAM**, a type of memory (DRAM) developed by Rambus, Inc.

36) What is SIMM? Is it is using now?
Ans:Acronym for **S**ingle **I**n line **M**emory **M**odule, a small circuit board that can hold a group of memory chips. Typically, SIMMs hold up to eight (on Macintoshes) or nine (on PCs) RAM chips. On PCs, the ninth chip is often used for parity error checking. Unlike memory chips, SIMMs are measured in bytes rather than bits.
Now a days this memory module is not used.

37) Why do we call motherboard a motherboard?
Ans:Motherboard is the basic integrated board of the computer on which all other components are connected. So that usually we call motherboard a "motherboard".

38) What is motherboard? What are the different types of it?
Ans:Motherboard is the basic integrated board of the computer on which all other components are connected. This is classified mainly into three Desktop, Laptop and Server motherboard.

39) What is the difference between integrated and non-integrated motherboard?
Ans:In integrated motherboard all of the external ports will be present. But in case of non-integrated motherboard only some important ports will be available instead of all. The non-integrated motherboard is an old type of motherboard which now a day's not commonly available.

40) How a server motherboard different from a desktop?
Ans:A server motherboard is different from a desktop in features and performance. The number of processor support, RAM slots ,Expansion card slots etc...are more. For example the Intel® Server Board **S5000PSL** has the performance and features for growing businesses demand. It provides excellent data protection, and advanced data management. It support 64-bit Multi-Core Intel® Xeon® processor. Eight fully buffered 533/667 MHz DIMMs. Up to six SATA 3Gb/s ports.

41) What is form factor of motherboard?
Ans:The form factor of a motherboard determines the specifications for its general shape and size. It also specifies what type of case and power supply will be supported, the placement of mounting holes, and the physical layout and organization of the board. Form factor is especially important if you build your own computer systems and need to ensure that you purchase the correct case and components.

42) What is ATX? How it is different from AT? Which is using now?
Ans:AT is a short for advanced technology, the AT is an IBM PC model introduced in 1984. It includes an Intel 80286 microprocessor, a 1.2MB floppy drive, and an 84-key AT keyboard. The ATX form factor specified changes to the motherboard, along with the case and power supply. Some of the design

specification improvements of the ATX form factor included a single 20-pin connector for the power supply, a power supply to blow air into the case instead of out for better air flow, less overlap between the motherboard and drive bays, and integrated I/O Port connectors soldered directly onto the motherboard. The ATX form factor was an overall better design for upgrading.

43) What is the need of expansion slot in motherboard?
Ans:Alternatively referred to as an expansion port, an expansion slot is a slot located inside a computer on the motherboard or riser board that allows additional boards to be connected to it.

44) What is PCI slot? How is different from PCI Express (PCI-E)?
Ans:Short for **P**ERIPHERAL **C**OMPONENT **I**NTERCONNECT, a local bus standard developed by Intel Corporation. PCI Express (Peripheral Component Interconnect Express), officially abbreviated as PCIe, is a computer expansion card standard designed to replace the older PCI, PCI-X, and AGP bus standards.

45) What is AGP slot? What is its use?
The Accelerated Graphics Port (often shortened to AGP) is a high-speed point-to-point channel for attaching a video card to a computer's motherboard, primarily to assist in the acceleration of 3D computer graphics. Since 2004 AGP has been progressively phased out in favor of PCI Express (PCIe).

46) What is jumper? What is the need?
A metal bridge that closes an electrical circuit. Typically, a jumper consists of a plastic plug that fits over a pair of protruding pins. Jumpers are sometimes used toconfigure expansion boards. By placing a jumper plug over a different set of pins, you can change a board's parameters.

47) What CMOS and CMOS battery?
Short for complementary metal oxide semiconductor. Pronounced see-moss. The CMOS chip holds the date, time, and system setup parameters. This chip is powered by a 3Volt CMOS battery.

48) What is chipset?
A number of integrated circuits designed to perform one or more related functions. This is one of the processing device in a computer.

49) What is power supply unit?
A power supply unit (PSU) supplies direct current (DC) power to the other components in a computer. It converts general-purpose alternating current (AC) electric power from the mains to low-voltage (for a desktop computer: 12 V, 5 V, 5VSB, 3V3, −5 V, and −12 V) DC power for the internal components of the computer.

50) What are the different types of Form Factors of Power Supply?
AT , ATX, Flex ATX, Micro ATX etc…

Every student should individually install operating system like Linux or MS windows on the personal computer. The system should be configured as dual boot with both windows and Linux.

INSTALLATION OF WINDOWS XP:

<u>**AIM**</u>: To install Windows XP

Hardware Requirements: Personal Computer, XP CD
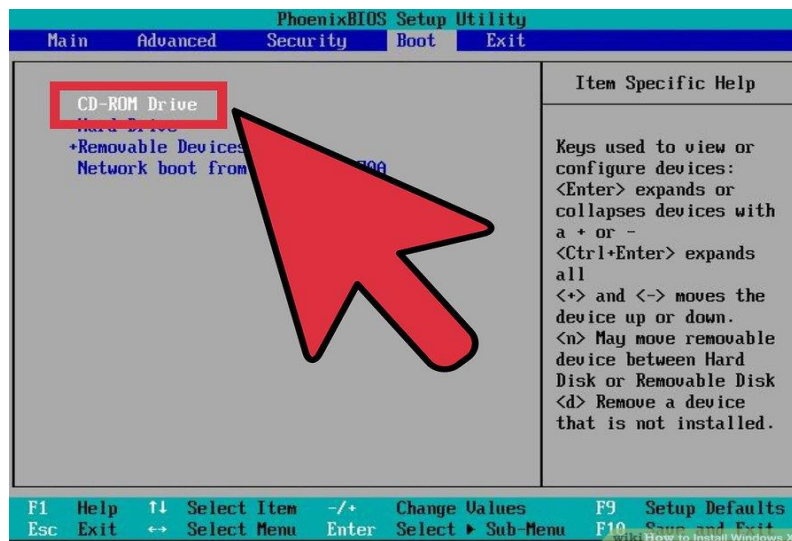
Software Requirements: Operating System

<u>**THEORY:**</u>

**WINDOWS XP** Wide Interactive Network for Development of Office Work Solutions- Experience

Microsoft Windows XP was introduced in 2001 and is the most significant upgrade to the Windows operating system since Windows 95.

<u>**PROCEDURE:**</u>

Step 1 - Start your PC and place your Windows XP CD in your CD/DVD-ROM drive.

Step 2 – Your PC should automatically detect the CD and you will get a message saying "**Press any key to boot from CD**". Soon as computer starts booting from the CD your will get the following screen:

ITWORKSHOP LAB MANUAL
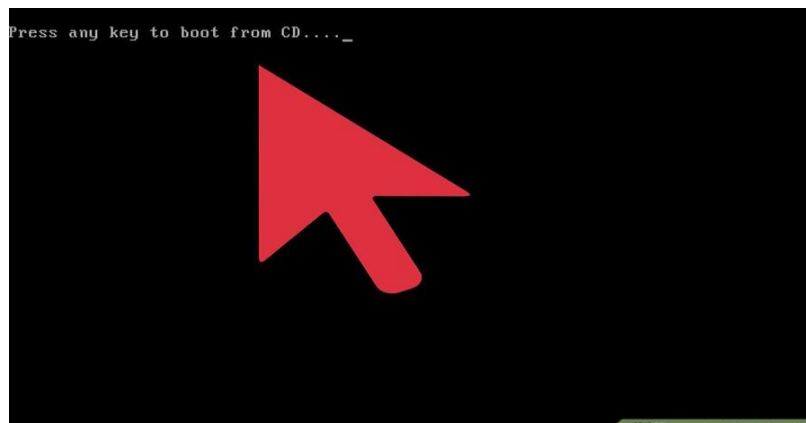
Step 3 - You will then get a Windows XP Professional Setup screen. You have the following options:

i)   To set up Windows XP now, press Enter

ii) To repair a Windows Xp Installation, press R

iii) To quit set up without installing windows XP, press F3.
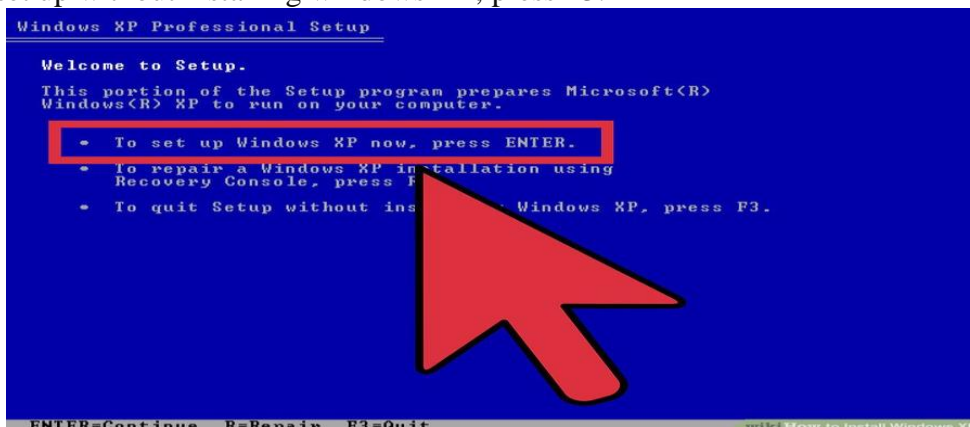
**Step 4** - You will be presented with the End User Licensing Agreement. Press F8 to accept and continue
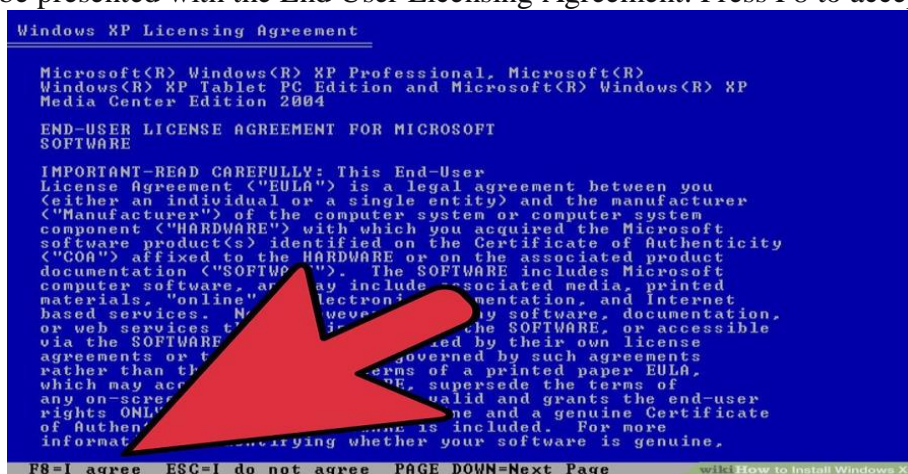
Step 5 – You will get Windows XP Professional Setup screen and having the following options:

i)   To set up windows XP on selected item, press Enter

ii) To create a partition in the unpartitioned space, press C

iii) To delete the selected item , press D

When you are doing new partition in hard disk press C to create partition in unpartitioned space and give required size for the drive and press Enter.

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32
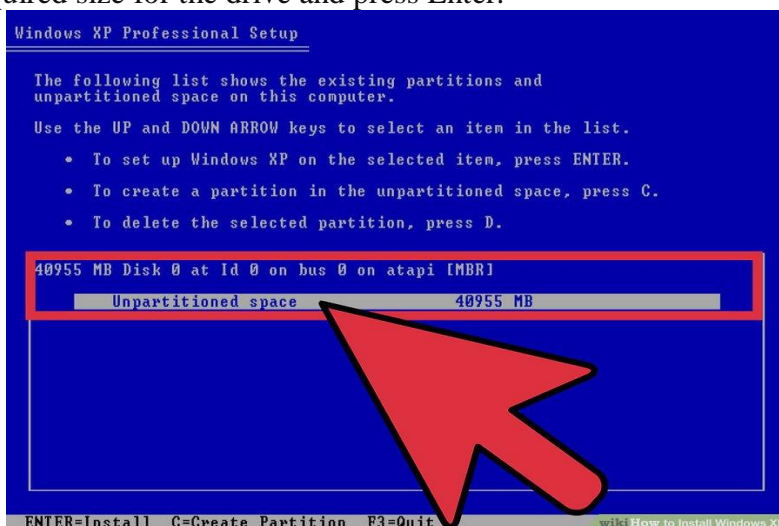
Step 6 – After completion of creating partitions Select Partition 1 (C: Drive) to install operating system on C Drive and press Enter.
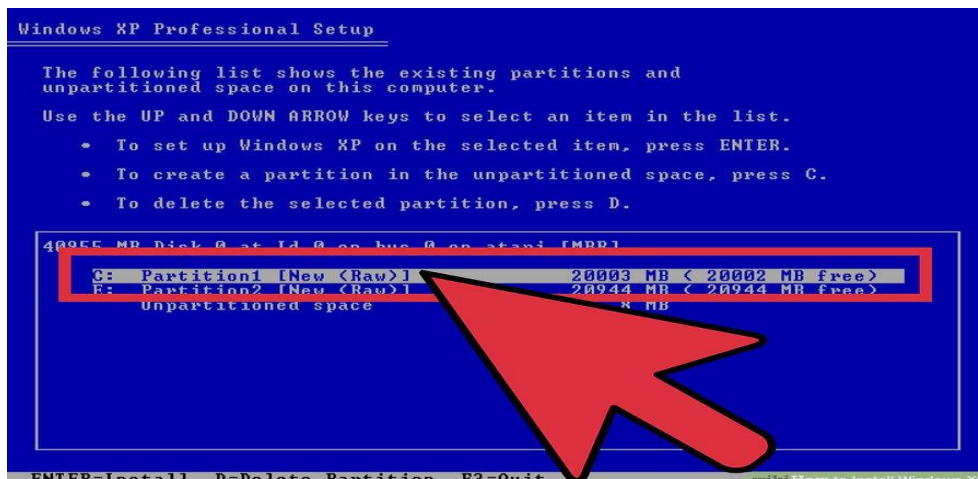

Step 7 - Choose format of the partition using NTFS/FAT file system. NTFS is the recommended file system with Quick option. If the hard drive has been formatted before then you can choose quick NTFS format. We chose NTFS because it offers many security features, supports larger drive size, and bigger size files.

NTFS:

i) New/Network Technology File System

ii) It supports larger drive size, bigger size files

iii) It is more faster to allocate the memory, accessing the data

iv) Provides more security features.

v) Provides more Networking options

vi) Partition size can be of 2 TB or more and file size can be 16 GB

FAT:

i) File Allocation Table File System

ii) It supports low drive size, lesser size files

iii) It is more slower to allocate the memory, accessing the data

iv) Provides less security features.

v) Provides less Networking options

vi) Partition size can be of 2 TB or more and file size can be 4 GB


ITWORKSHOP LAB MANUAL
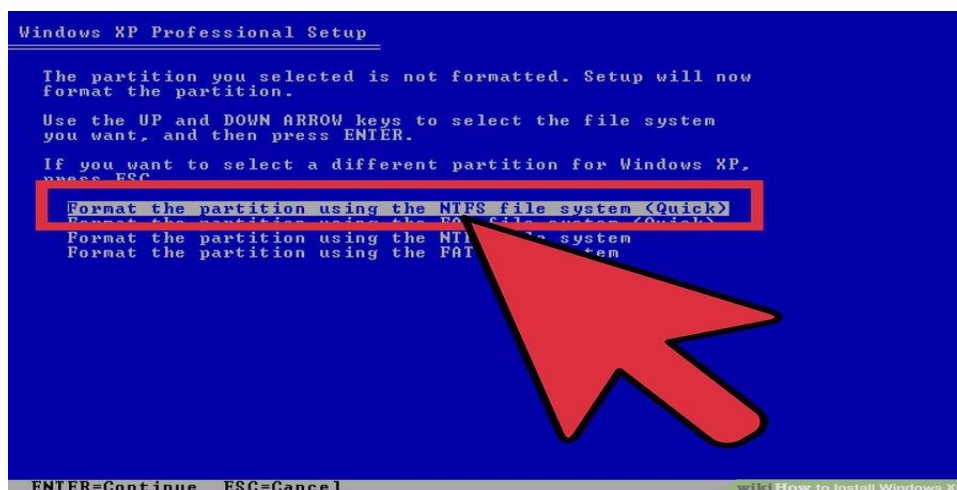
Step 8 - Windows will now start formatting drive C: and start copying setup files from CD to C Drive.
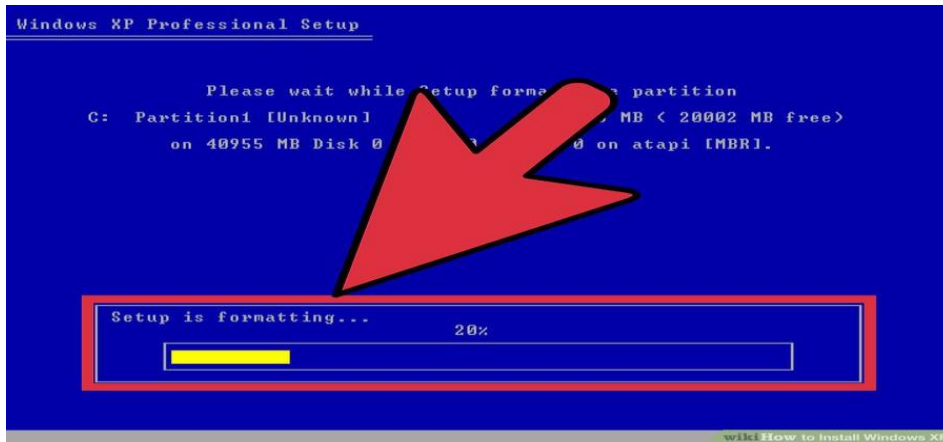

Step 9 - After the setup has completed copying the files the computer will restart. Leave the XP CD in the drive but this time DO NOT press any key when the message "Press any key to boot from CD" is displayed. In few seconds setup will continue. Windows XP Setup wizard will guide you through the setup process of gathering information about your computer.
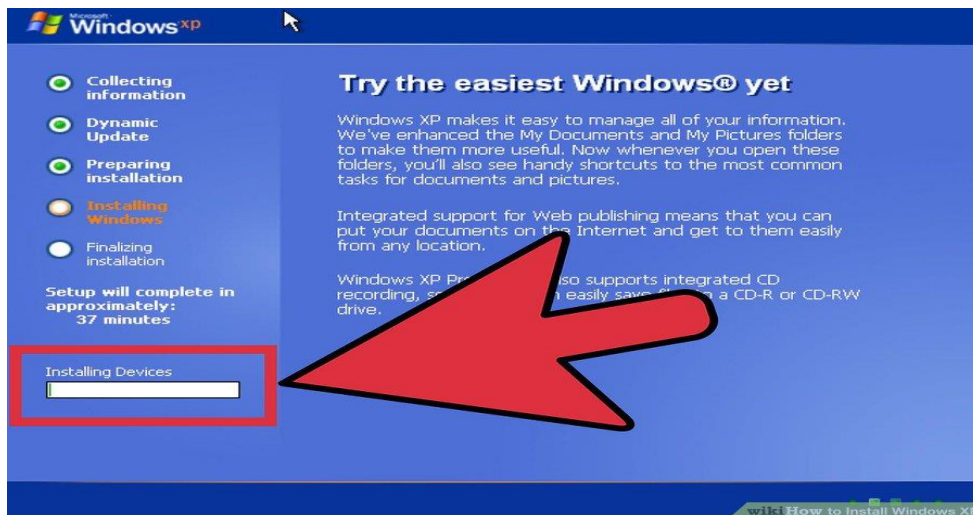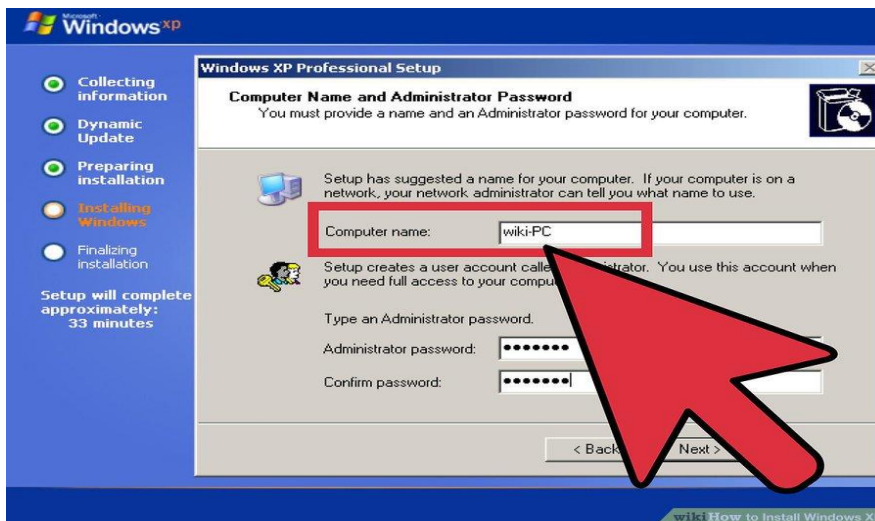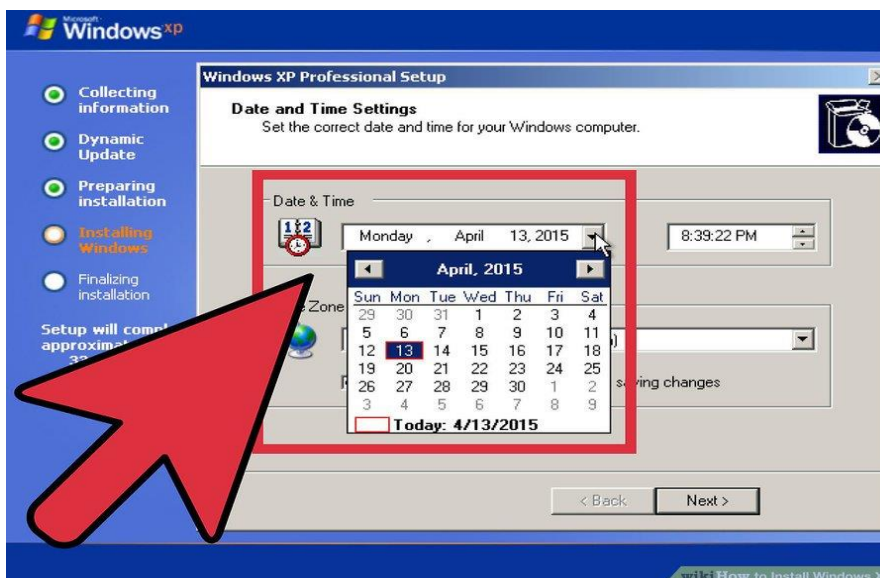

Step 10 - Choose your region and language.

ITWORKSHOP LAB MANUAL
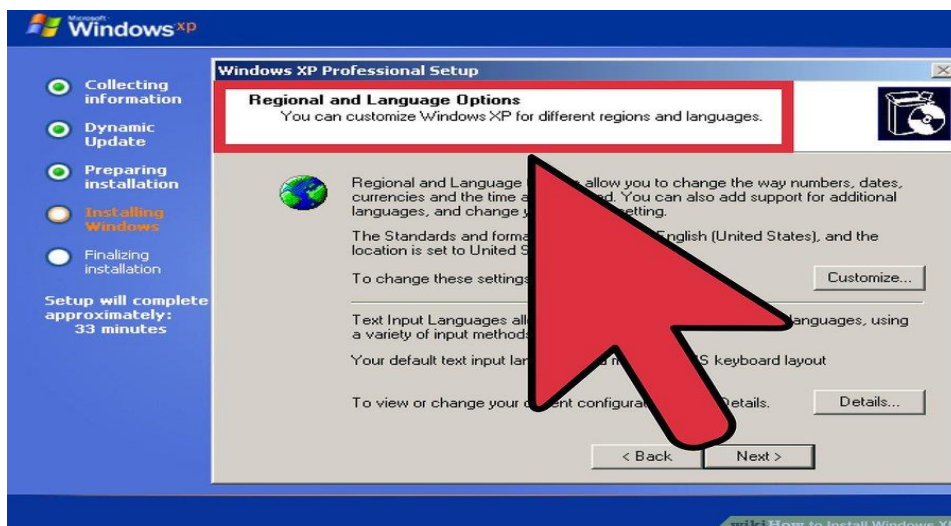
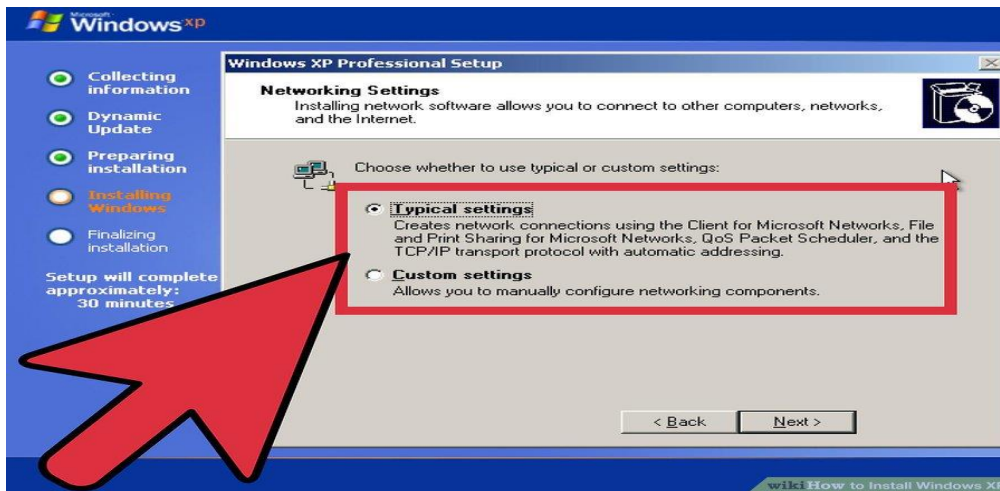**Step 11:** Enter your product key. XP Product Key has 25 Characters.
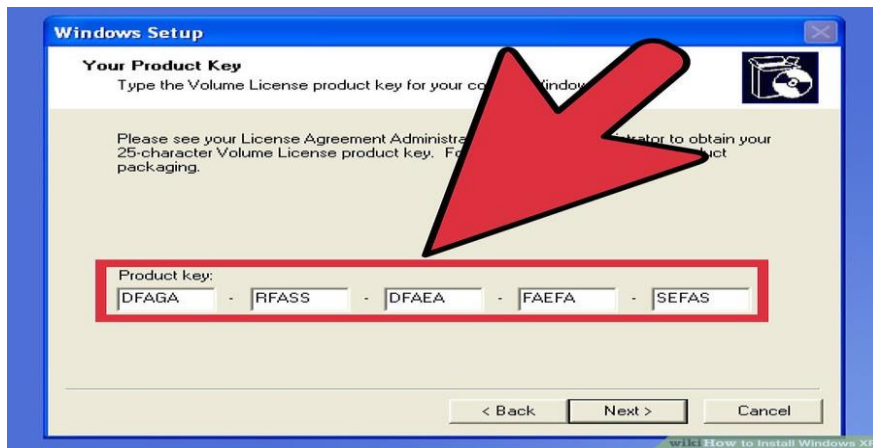
Step 12 - Name the computer, and enter an Administrator password. Don't forget to write down your Administrator password.
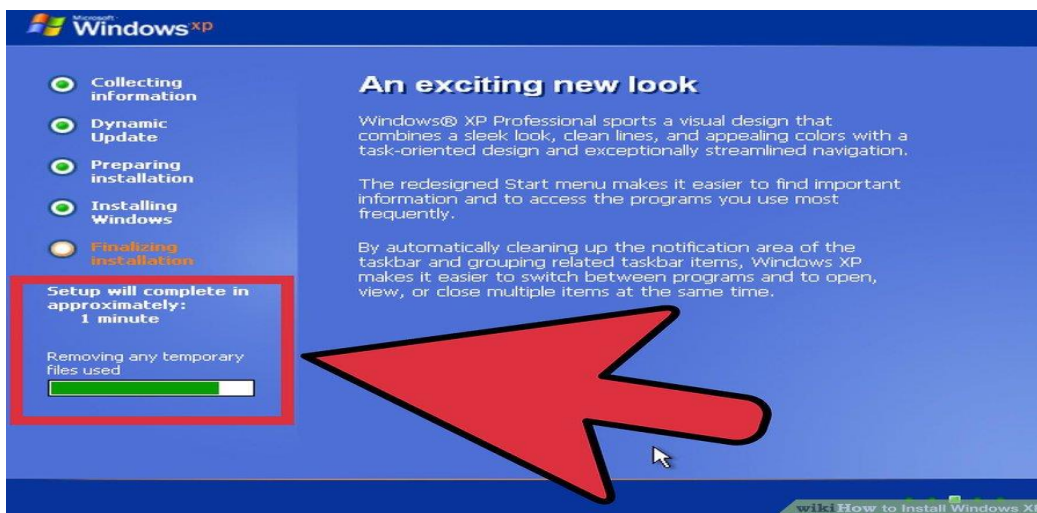

**Step 13 -** Enter the correct date, time and choose your time zone.

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**Step 14** - For the network setting choose typical and press next.

Step 15 - Wait for the installation to finalize. This will only take a few minutes, and the computer will reboot when it is finished installing


Step 16 - Set your display preferences. Once Windows loads, you will be told that Windows will automatically configure your display. Click OK to start the configuration. Your screen will flash a couple times, and then you will be asked if you can read the box that appears.

ITWORKSHOP LAB MANUAL
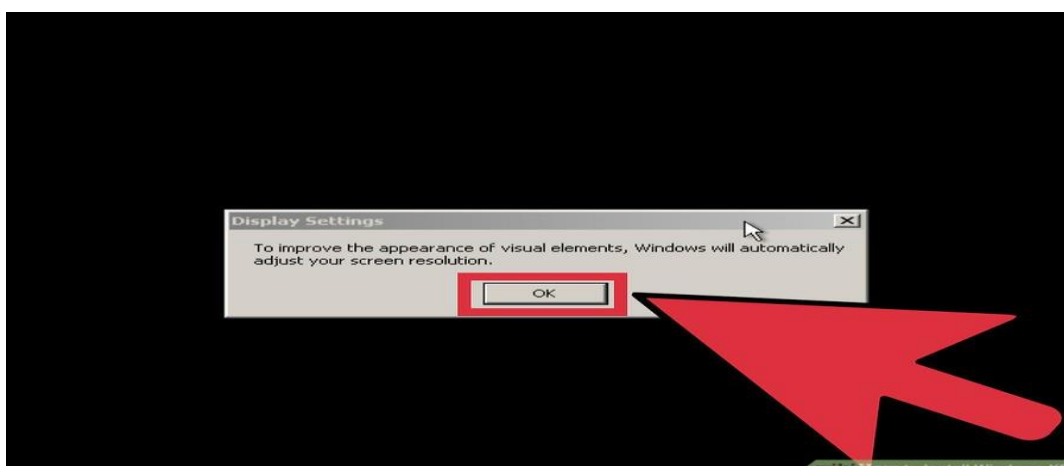
Step 17 - Set your connection preferences. If your computer is connected to the internet, select your connection type. Press Next to continue.
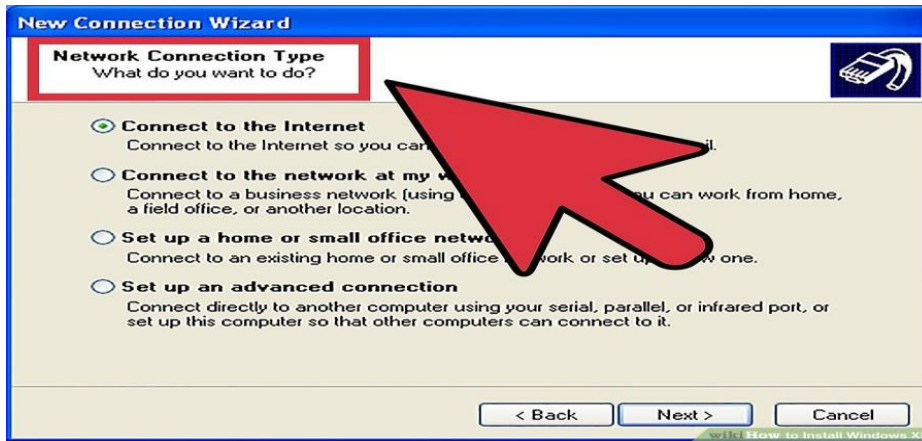
Step 18 - Activate your copy of Windows. If connected to the Internet, Select "Activate Now." Windows will connect to the activation server and automatically authenticate your copy of Windows. If you haven't entered your Product Key yet, you will need to enter it now.
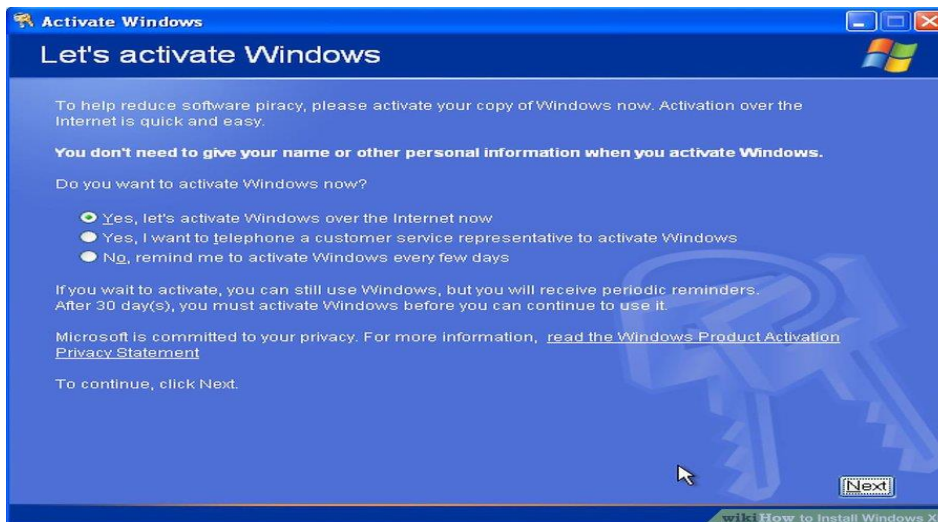
Step 19 - Add users that will sign on to this computer and click next.
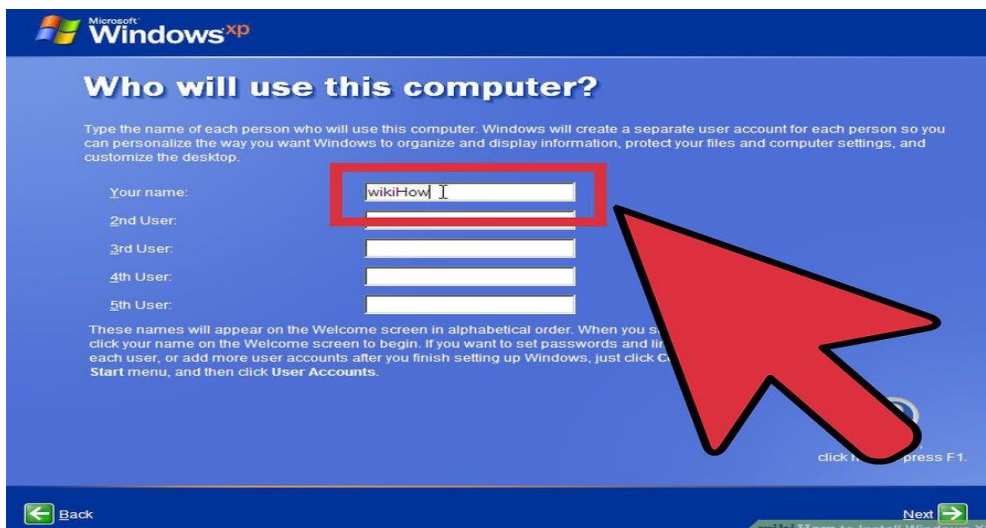
Step 20: Log in, to your PC for the first time.

Test Data: No Test Data for this Experiment

Errors: No Errors for this for this Experiment

Result: Installing the Windows XP operating system on a pc is completed

.

ii). AIM: To install Linux in system

Software Requirement: Linux compact discs (3)

Hardware Requirement: Personal Computer

THEORY: Linux is a Unix-like operating system that was designed to provide personal computer users a free or very low-cost operating system comparable to traditional and usually more expensive Unix systems. Linux has a reputation as a very efficient and fast-performing system. Linux's kernel (the central part of the operating system) was developed by "Linus Torvalds" at the University of Helsinki in Finland. To complete the operating system, Torvalds and other team members made use of system components developed by members of the Free Software Foundation for the GNU Project.

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PROCEDURE:

1. **Language Selection**

- Using your mouse select the language you would prefer to use for the installation
- Click next to continue.

2. **Key Board Configuration**:

- Using your mouse select the correct layout type for the keyboard you would prefer to use for the installation and as the system default.
- Once you have made the selection click next to continue.

3. **Mouse Configuration**:

- If you have a PS/2, USB or Bus mouse you do not need to pick a port and device. If you have a serial mouse, you should choose the correct port and device that your serial mouse is on.
- The **Emulate 3 buttons** checkbox allows you to use a two-button mouse as if it had three buttons. If you select this check box you can emulate a third "middle" button by pressing both mouse buttons simultaneously.

4. **Installation Type**:

- Choose the type of installation you would like to perform.
- Your options are **Personal desktop, Workstation, Server, Custom** and **upgrade**

5. **Disk partition Setup**:

- You can chose automatic partitioning or manual partitioning using **Disk Druid** of **fdisk.**
- Automatic partitioning allows you to perform an installation without having to partition your drives yourself.
- Automatic partitioning allows you to have some control concerning what data is removed from your system.
- Your options are:
  - ✓ Remove all Linux partitions on this system.
  - ✓ Remove all partitions on this system
  - ✓ Keep all partitions and use existing free space.
- To partition manually choose either Disk druid or fdisk partitioning tool.
- Lick next once you have made your selections.

5. **Partitioning your system**:

- If you chose automatic partitioning and did not select **Review** skip ahead
- If you choose automatic partitioning and selected **review** you can either accept the current partition settings (click next) or modify the setup using **Disk Druid**, the manual partition tool.
- If you choose manual partition with fdisk skip ahead.

- At this point you must tell the installation program where to install Linux. This is done by defining mount points for one or more disk partitions in which Linux will be installed.

6. **Adding Partitions**:

- To add a new partition select **new** button, a dialogue box appears.
- Select the options and click **ok**

7. **Boot Loader Configuration**:

- Boot loader is the first software program that runs when a computer starts.
- The installation program provides two boot loaders **GRUB (GR and Unified Boot Loader)** which is the default and **LILO**
- If you do not want GRUB as your boot loader click **Change Boot Loader.**
- You can then choose to install LILO or choose not to install boot loader at all by clicking **Do not install boot loader** on the **change boot loader** button.
- Network devices are automatically detected and displayed in **Network Devices** list,
- Select a network device and click **Edit**
- Here you can configure IP address and net mask of the device.

8. **Firewall configuration**:

- Offers firewall protection for enhanced protection.
- A properly configured firewall can greatly increase the security of the system.

9. **Time zone configuration**:

You can set your time zone by selecting your computers physical location or by specifying your time zones offset from Universal Time.

10**. Account Configuration**:

- Allows to set Root password or user accounts
- Root count is similar to the administrator password that you set up in Win NT.
- Click **add** button to add a new non-rot user.
- Enter the details and click **OK.**

11. **Packing group selection**:

You can select package groups which groups components together or individual packages or a combination of the two.

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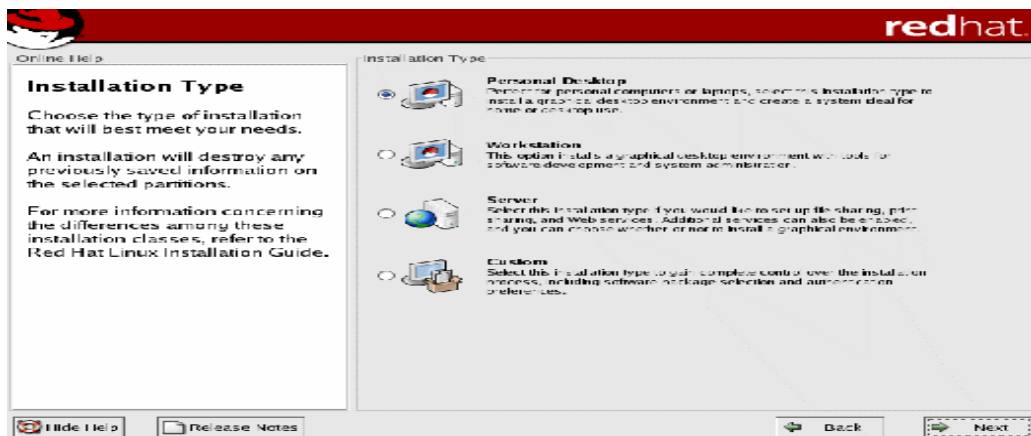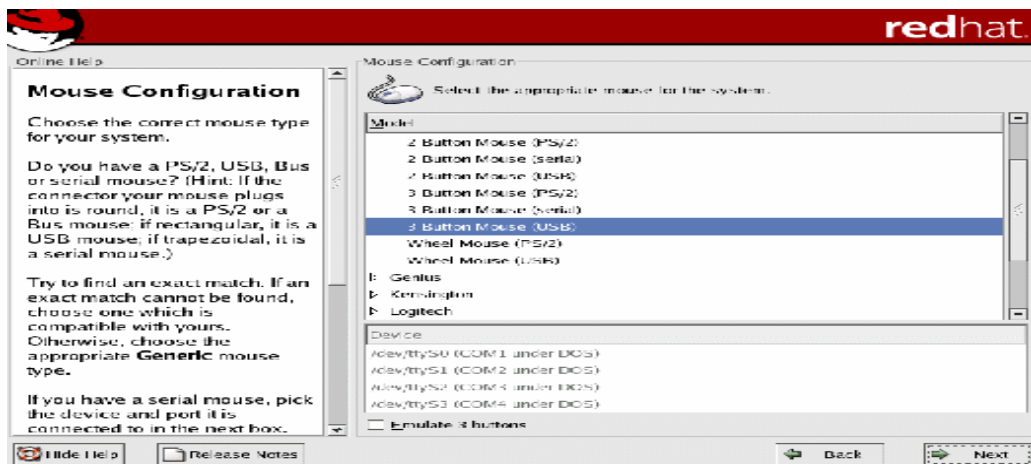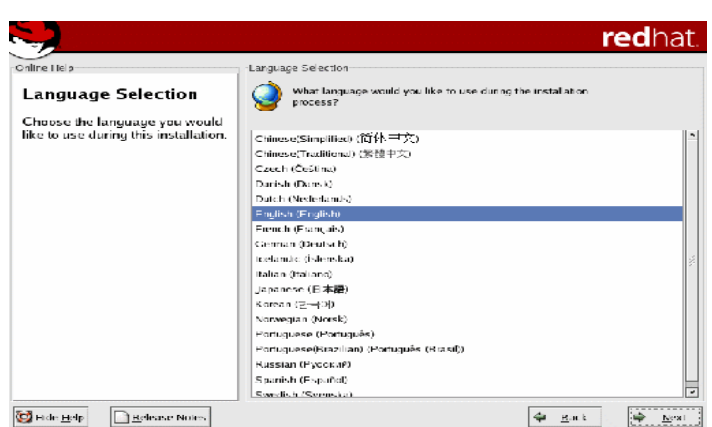
Disk Partitioning Setup

One of the largest obstacles for a new user during a Linux installation is partitioning. Red Hat Linux makes this process easier by providing automatic partitioning.

By selecting automatic partitioning, you will not have to use partitioning tools to assign mount points, create partitions, or allocate space for your installation.

To partition manually, choose the **Disk Druid** partitioning tool.

Use the **Back** button to choose a different installation, or choose **Next** if you want to proceed with this installation.

Automatic Partitioning

Automatic partitioning allows you to have some control concerning what data is removed (if any) from your system.

To remove only Linux partitions (partitions created from a previous Linux installation), select Remove all Linux partitions on this system.

To remove all partitions on your hard drive(s) (this includes partitions created by other operating systems such as Windows 95/98/NT/2000), select **Remove all partitions on this system.**

To retain your current data and partitions, assuming you have

Disk Setup

Choose where you would like Red Hat Linux to be installed.

If you do not know how to partition your system or if you need help with using the manual partitioning tools, refer to the *Red Hat Linux Installation Guide*.

If you used automatic partitioning, you can either accept the current partition settings (click **Next**), or modify the setup using the manual partitioning tool.

If you are manually partitioning your system, you will see your current hard drive(s) and partitions displayed below. Use the partitioning tool to add, edit,

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Installing Packages screenshots for Red Hat Linux installation.

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LINUX Commands:

1. ls   by this command we can see only file name nothing else

syntax

$ls

2.clear   it will clear the screen(short cut ctl+l)

syntax

$clear

3.exit to end a current session as well current terminal logging

syntax

$exit

4.touch to create a new empty file

syntax

$touch

5.cd to change the working/present directory

syntax

$cd /home/mango

    where '/home/mango' is the desired directory to be change from '/root'

6.cat to view the contents of a file and it is also used for creating a new file with some contents

Syntax

$cat <file name>   to view file contents

$cat > newfilename   enter,then you can write something in the file and then to save the file contents press clt+d then enter

7.mkdir   to make a new directory

syntax

$mkdir newdirname

    you can also create a directory at your desired path without changing your present working directory

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syntax

$mkdir /home/mango/newdirname

8.rm   to remove a empty file

syntax

$rm filename

9.rmdir   to remove a empty directory

syntax

$rmdir directoryname

10.rm   [-i/-r/-f] to remove a directory with its subdirectories as well as its files that is to remove a directory which already contains some files in it

syntax

$rm -i directory/filename

   -i stands for interactively

       -r stands for recursively

       -f stands for forcefully

11.cp   to copy something in a destination file or directory

syntax

$cp sourcepath destinationpath

example: $cp /home/mango/webmin.rpm /root/abcd

       in this example the webmin.rpm file will be copied in /root/abcd directory

12.mv   to move one file or directory from one place to another place, it

is also used for renaming adirectory or file

syntax

$mv source destination

$mv oldfilename newfilename   [to change the file name]

13.man   to view the 54anual page of commands for syntax

54

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syntax

$man commandname

14.info   to view the information about any command

syntax

$mkdir info

15.--help   to view the help 55ocuments of a command

syntax

$commandname –help

16.who   by this command you can see the user name and their ip addresses who have loged in on your server

Syntax $who

17.whoami   this command shows your current logged in terminal user name

syntax

$whoami

Standard directory structure

∆ / - the topmost

∆ /dev - all the devices are accessible as files

∆ /var - "variable" data such as mails, log files, databases

∆ /usr - almost all the packages installed

∆ /etc - configuration files

∆ /home - home directories for all the users

∆ /root - home directory of the privileged user root

∆ /mnt - used to mount other directories/partitions

Test Data: No Test Data for this Experiment

Errors: No Errors for this for this Experiment

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Result: Installing the LINUX operating system on a pc is completed

Viva Questions:

1) Explain the main purpose of an operating system?

Ans:Operating systems exist for two main purposes. One is that it is designed to make sure a computer system performs well by managing its computational activities. Another is that it provides an environment for the development and execution of programs

2) Which is the file system of a floppy disk?
FAT.

3) In Windows XP, what does the letter XP stand for?

The letters XP actually stands for eXPerience. It was designed as an enhancement of Windows 2000, with a totally different and more attractive user interface/console.

4) What is a Hotfix?

Hotfix are files that are distributed by Microsoft Customer Service. These are intended to address issues such as bugs and errors within existing software.

5) What is NTFS?

NTFS is short for New Technology File System. It is the standard file system that is being used by operating systems starting from Windows NT, Windows 2000, Windows XP, and even the newer versions like Vista and 7. It was originally designed to have a better performance on file storage and retrieval under the Windows NT family.

6) What are DLLs?

DLL is short for Dynamic Link Library. These are shared library files that contain usable codes and routines that other applications can utilize to create other new applications.

7) Which Microsoft Certification is considered the most popular?

It is the Microsoft Certified Systems Engineer (MCSE). This certification deals with skills related to applying solutions to business productivity by utilizing Microsoft Server operating system.

8) What is registry?

Registry is a very important component of the Windows Operating System. It stores important information, such as setup and configuration, installation settings, and user settings.

9) What is ScanDisk and what does it do?

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ScanDisk is a diagnostic tool that checks a hard drive for errors, file corruptions and data integrity. It can do repairs on errors that it detects.

10) How do you reverse a doubly-linked list?

To do this, start from the head and traverse to the end. For each node in the list that was traversed, swap the values of the links "Next" and "Prev". After that, set the "Head" to link to the last node or tail.

11) Give some known Windows version and its codename

Windows	98	–	Memphis
Windows	Me	–	Millenium
Windows	XP	–	Whistler
Windows	Vista	–	Longhorn

Windows 7 – Vienna and Blackcomb

12) What are cookies?

Cookies are small pieces of information that are stored in a browser. It keeps track of user preference, like what sites are visited, what keywords are used, among others.

13) What File system is supported by Windows XP?

Windows XP supports four major file systems: FAT12, FAT16, FAT32 and NTFS. This means that Windows XP can be installed on these file systems. The use of NTFS is preferred especially when using a bigger hard drive space.

14) What is the purpose of a Service Pack?

A Service Pack combines hotfixes and updates into one installer module. These are mainly used to upgrade an existing software version without the need to uninstall and reinstall an entire software package.

15) What is the purpose of Option Explicit?

Option Explicit ensures that all variables to be used in a program are defined or declared, therefore specifying what data type it is intended for.

16) Differentiate linked list from arrays.

Arrays can store data in a fix allotted space. The use of linked list allows more flexibility because space is dynamically allocated as needed.

17) What is defrag?

Defrag is a system utility tool under Windows operating system that is designed to rearrange the ordering of data on disk. This action makes the disk run faster and access to data more efficient.

18) What is the difference between a Windows server operating system and a workstation version?

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The server version of a Windows operating system is designed to provide more optimized networking services over a network. It can manage domains better and it includes more security feature and data backup support. Workstation versions act merely as clients and therefore do not need to have as much resources when compared to the server versions.

19) What is the purpose of creating partitions for a Windows operating system?

Creating partition may serve different purposes. The common reason is that a separate partition can be used to store data files so that when Windows needs to be reinstalled, the main partition can be formatted without fear of loosing data, which are stored on the other partition.

20) How do you correctly arrange the order by which pressing the tab key will move from one control object to another?

You do that by setting the tabIndex property. Click on one control object to another in the sequence that you want, and then each time you set the tabIndex property of each object as 0. That will automatically arrange according to the sequence that you want.

21) What is a Process

a program in execution

22) What is Linux?

Linux is an operating system based on UNIX, and was first introduced by Linus Torvalds. It is based on the Linux Kernel, and can run on different hardware platforms manufactured by Intel, MIPS, HP, IBM, SPARC and Motorola. Another popular element in Linux is its mascot, a penguin figure named Tux.

23) What is the difference between UNIX and LINUX?

Unix originally began as a propriety operating system from Bell Laboratories, which later on spawned into different commercial versions. On the other hand, Linux is free, open source and intended as a non-propriety operating system for the masses.

24) What is BASH?

BASH is short for Bourne Again SHell. It was written by Steve Bourne as a replacement to the original Bourne Shell (represented by /bin/sh). It combines all the features from the original version of Bourne Shell, plus additional functions to make it easier and more convenient to use. It has since been adapted as the default shell for most systems running Linux.

25) What is Linux Kernel?

The Linux Kernel is a low-level systems software whose main role is to manage hardware resources for the user. It is also used to provide an interface for user-level interaction.

26) What is LILO?

LILO is a boot loader for Linux. It is used mainly to load the Linux operating system into main memory so that it can begin its operations.

27) What is a swap space?

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A swap space is a certain amount of space used by Linux to temporarily hold some programs that are running concurrently. This happens when RAM does not have enough memory to hold all programs that are executing.

28) What is the advantage of open source?

Open source allows you to distribute your software, including source codes freely to anyone who is interested. People would then be able to add features and even debug and correct errors that are in the source code. They can even make it run better, and then redistribute these enhanced source code freely again. This eventually benefits everyone in the community.

29) What are the basic components of Linux?

Just like any other typical operating system, Linux has all of these components: kernel, shells and GUIs, system utilities, and application program. What makes Linux advantageous over other operating system is that every aspect comes with additional features and all codes for these are downloadable for free.

30) Does it help for a Linux system to have multiple desktop environments installed?

In general, one desktop environment, like KDE or Gnome, is good enough to operate without issues. It's all a matter of preference for the user, although the system allows switching from one environment to another. Some programs will work on one environment and not work on the other, so it could also be considered a factor in selecting which environment to use.

31) What is the basic difference between BASH and DOS?

The key differences between the BASH and DOS console lies in 3 areas:
– BASH commands are case sensitive while DOS commands are not;
– under BASH, / character is a directory separator and \ acts as an escape character. Under DOS, / serves as a command argument delimiter and \ is the directory separator
– DOS follows a convention in naming files, which is 8 character file name followed by a dot and 3 character for the extension. BASH follows no such convention.

32) What is the importance of the GNU project?

This so-called Free software movement allows several advantages, such as the freedom to run programs for any purpose and freedom to study and modify a program to your needs. It also allows you to redistribute copies of a software to other people, as well as freedom to improve software and have it released to the public.

33) Describe the root account.

The root account is like a systems administrator account, and allows you full control of the system. Here you can create and maintain user accounts, assigning different permissions for each account. It is the default account every time you install Linux.

34) What is CLI?

CLI is short for Command Line Interface. This interface allows user to type declarative commands to instruct the computer to perform operations. CLI offers an advantage in that there is greater flexibility. However, other users who are already accustom with using GUI find it difficult to remember commands including attributes that come with it.

35) What is GUI?

GUI, or Graphical User Interface, makes use of images and icons that users click and manipulate as a way of communicating with the computer. Instead of having to remember and type commands, the use of graphical

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elements makes it easier to interact with the system, as well as adding more attraction through images, icons and colors.

36) How do you open a command prompt when issuing a command?

To open the default shell (which is where the command prompt can be found), press Ctrl-Alt-F1. This will provide a command line interface (CLI) from which you can run commands as needed.

37) How can you find out how much memory Linux is using?

From a command shell, use the "concatenate" command: cat /proc/meminfo for memory usage information. You should see a line starting something like: Mem: 64655360, etc. This is the total memory Linux thinks it has available to use.

38) What is typical size for a swap partition under a Linux system?

The preferred size for a swap partition is twice the amount of physical memory available on the system. If this is not possible, then the minimum size should be the same as the amount of memory installed.

39) What are symbolic links?

Symbolic links act similarly to shortcuts in Windows. Such links point to programs, files or directories. It also allows you instant access to it without having to go directly to the entire pathname.

40) Does the Ctrl+Alt+Del key combination work on Linux?

Yes, it does. Just like Windows, you can use this key combination to perform a system restart. One difference is that you won't be getting any confirmation message and therefore, reboot is immediate.

41) Which tool can you use to prepare a USB device so that you can boot from it to install Windows 7 on a netbook?

Diskpart

42). Which of the following versions and editions of Windows 7 can you install to take advantage of the hardware resources on a computer that has 16 GB of RAM? (Choose all that apply.)

Windows 7 Home Premium x64

43. Windows 7 comes in several different versions such as Home, Professional and Ultimate. You can also run Windows 7 in 32 or 64 bit versions. If you want to install and run a 64 bit version of Windows 7 which one of the following is NOT a requirement?

At least 4GB of ram

44). Windows 7 comes in a variety of versions including Home, Professional and Ultimate. Which version of Windows 7 comes with a form of encryption designed to help protect data on your PC and portable storage devices against loss or theft?

Ultimate x64

45. Windows 7 comes in both a 32 bit and 64 bit versions. What is the minimum processor speed recommended by Microsoft for running the 64 bit version of Windows 7?

1 GHz

46)Which version of Windows 7 comes with Windows Touch built in?

Home Premium, Professional and Ultimate

47). What is the minimum number of volumes that a computer running Vista should have if you want to support dual-booting with Windows 7?

2

48). In which of the following scenarios must you perform a migration rather than an upgrade?

Windows XP Pro (x64) to Windows 7 Pro (x64)

49). You are using sysprep to prepare a system for imaging. You want to reset the security ID (SID) and clear the event logs. Which option should you use?

/generalize

50). You want to create a 30GB native VHD called MySystem.vhd in a folder called Windows 7 on an external USB hard disk with the drive designation H. Which command do you use?

Create vdisk file=h:\windows7\mysystem.vhd maximum=30000

PROBLEM 5:

Hardware Troubleshooting: Students have to be given a PC which does not boot due to improper assembly or defective peripherals. They should identify the problem and fix it to get the computer to working back condition.

AIM: Hardware troubleshooting

Hardware Requirements: Personal Computer

Software Requirements: Operating System

THEORY:

If your PC hangs up or freezes it may be due to the hardware/software conflicts, faulty processor fan, inadequate RAM and a virus/spyware attack. To deal with the security related threats such as viruses, hacking attacks, spyware, adware, Trojan horses, browser hijacks and other, you need to install up-to-dated antivirus, anti spyware software and properly configured firewall software or hardware. This article will provide you help in troubleshooting the most common problems with your PC.

Hard Disk Problems

If you hard disk does not spin up then you need to do the following.

Check the power connectors are properly connected.

Check if the IDE ribbon cable is properly connected with the motherboard and hard disk.

If the problem still not resolved then there may be bad sectors or other physical defects in your hard disk. Use a hard disk diagnostic utility, it will diagnose the health status of your hard disk and will help you to troubleshoot the common problems.

Printer Problems

If your printer does not print, then you need to do the following.

Check the cables.

Restart the printer.

Update the driver.

Check the alignment of the printer.

If the problem is still not resolved then you need to reinstall the printer.

Memory Problems

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Sometimes bad or low memory leads to system crash, slow response time and the system freeze. To troubleshoot the memory related problems in your system you need to do the following.

Check the memory sticks.

Replace the memory modules.

Increase the amount of memory in your system. It will fix a number of system errors that are caused due to the low memory.

Motherboard Problems

A PC motherboard consists of an I/O ports, expansion slots, input device ports, RAM memory and CPU socket. A misconfigured motherboard may results in the system errors or no display at all. To troubleshoot the errors with your system's motherboard you need to do the following.

Double check the motherboard's jumper settings

Upgrade the drivers of the newly installed motherboard and set the BIOS according to the manufacturer's manual.

Remove all the optional devices and see if the problem is solved or not.

Double check all the connections to the motherboard.

Check the system's BIOS and see if it is properly configured or not.

Make sure that the keyboard and mouse are properly inserted into the motherboard.

Computer error beeps codes:

No beep: short, no power, bad CPU/ MD, loose peripherals.

One beep: everything is normal & computer posted tax.

Two beeps: post / CMOS error.

One long beep One short beep: Motherboard problem.

One long beep two short beep: video problem.

One long beep 3 short beeps: video problem.

3 long beeps: keyboard error.

Repeated long beep: memory error.

Continuous high- low beeps: CPU overheating

Test Data: No Test Data for this Experiment

Errors: No Errors for this for this Experiment

Result: Hardware Troubleshooting is completed on a system

Viva Questions:

1. Which of the following would you use to keep the power supply working properly?

To keep your power supply up and running and to help prevent damage from power surges, you should use a surge protector. The UPS will supply power for a short period of time to the computer system in case of total power outage.

2. Power supplies are rated using which of the following units?

Power supplies are rated in watts, and the more watts a power supply provides, the more devices it can safely power

3. Newer tower-case computers' power supplies typically have which of the following power output ratings?

Most newer tower computers have 500 watt or larger power supplies in them because of the greater number of drives and expansion cards that are available now

4. Most power supplies in use today are designed to handle which two voltage ranges?

Standard North American power is 115 volts, and power in most parts of Europe and Asia is 230 volts. Some power supplies have a slider on the back to switch between the two voltages.

5. Which of the following are causes of power supply overheating?

All of the listed reasons can cause damage to the power supply as well as overheating your computer.

6. How many pins are used for the main power connection by recent ATX/BTX motherboards with ATX12V 2.2 power supplies?

Most of the newer power supplies in use today have 24 pins. Older motherboards have a 20-pin connection.

7. What is the four-pin square power connector on the motherboard used for

This connector is the ATX12V connector, which provides 12V power dedicated to the processor (a voltage regulator on the motherboard reduces 12V to the actual power required by the processor).

8. What is the six-pin power lead on the power supply used for?

The six-pin (or 6+2 pin) power supply lead provides additional power needed by high-performance PCIe x16 cards, such as those used for SLI or for CrossFire X multi-GPU installations

9. Which of the following steps would you use to remove a power supply?

You must disconnect from the wall first; then once inside the computer unhook the connection to the motherboard, drives, and other devices

10. To avoid power supply hazards you must never do which of the following
The capacitors inside the power supply retain potentially fatal voltage levels. To prevent shock you should not disassemble power supplies or stick in a metal object such as a screwdriver.

11. Which device provides emergency power to a computer in case of a complete power failure?

A UPS (uninterruptible power supply) will keep a standard desktop up and running in case of a complete power outage.

12. What is the minimum time recommendation for a UPS to supply power for an individual workstation?

UPSs are designed to supply power to a computer long enough for you to complete a formal shutdown

13. Which of the following correctly describe an SPS? (Choose all that apply.)

When an SPS is used there is a momentary gap, usually about 1ms or less, between when the power goes off and when the SPS starts supplying power. SPSs are also less expensive and are not used at all times.

14. When a system is dead and gives no signs of life when you turn on the computer, which of the following might be the cause?

When turning on a system that shows no signs of life you must consider all of these as potential problems.

15. Processors and other components use a finned metal device to help with cooling. What is this device called?

All processors require a heat sink. A heat sink is a finned metal device that radiates heat away from the processor. An active heat sink (a heat sink with a fan) is required for adequate processor cooling on current systems. Some older systems used a specially designed duct to direct airflow over a processor with a passive heat sink (a heat sink without a fan). Most motherboards' northbridges use passive heat sinks or heat pipes.

16. What is the purpose of thermal compound

Thermal compound (also known as thermal transfer material, thermal grease, or phase change material) provides for the best possible thermal transfer between a component (for example a CPU) and its heat sink. This prevents CPU damage. The fan and adapter cards should not have thermal compound applied to them.

17 Define Trouble Shooting?

Ans: Trouble shooting is the procedure to solve the problems and giving the solutions to them.

18. If the Picture of the Monitor is not visible, give the solution?

Ans: Check the power connections on both sides of cabinet and monitor, check the Brightness control.

19 What is most commonly used game port?

Ans:Joystick, Games Paddle, Keyboard, Mouse.

20 What is the full form of MIDI?

Ans: Musical Instrumental Digital Interface.

PROBLEM 6:

Students have to be given a malfunctioning CPU due to system software problems. They should identify the problem and fix it to get the computer back to working condition. The work done should be verified by the instructor and followed up by the viva.

AIM: Software troubleshooting

Hardware Requirements: Personal Computer

Software Requirements: Operating System

PROCEDURE:

Error messages encountered during boot before Windows loads

- Ensure that your computer BIOS settings are correctly configured to the hardware that is installed in your computer

Error messages while windows loading

1. If you have recently installed or changed something that could have caused normal windows to stop loading, try loading the last known good configuration

2. If you are unable to get into Normal windows and believe that removing or uninstalling a program or changing a setting may help enable you to get into windows, boot the computer into windows XP safe mode

3. If your computer has worked fine in the past but recently has been experiencing the issue you are encountering run the system restore option to restore the computer to an earlier date

Other error messages that occur while windows is loading or after windows is loaded

1. If error occurs but windows still loads, verify no issues or conflict exits in device manager

2. Ensure that if programs are loading automatically that these errors are not associated with these programs

3. Make sure Windows XP is up to date by checking Microsoft windows update page

4. If your computer has virus protection installed make sure that it is up to date and that no virus are being detected

5. If your computer has worked fine in the past but recently has been experiencing the issue you are encountering run the system restore option to restore the computer to an earlier date

REINSTALL: When a particular program is not working, reinstalling the failing application may be the fix you need. Save any settings and data used by the program, and then use the original install disks to recopy the program components to your hard drive.

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ELIMINATE TROUBLESOME PROGRAMS: If you notice that consistent problems began when you installed an unnecessary program, then *uninstall* that program from your system (click on START -> SETTINGS -> CONTROL PANEL -> ADD/REMOVE PROGRAMS).

REINSTALL/UPDATE DRIVERS: Many hardware associated problems are caused by driver conflicts, corrupt driver components, and drivers which need to be updated for use with new program releases. When a piece of hardware stops working or continually produces errors, try reinstalling the driver disk that came with it.

DEFRAG THE HARD DRIVE: After a computer has been used for a while, data and software components tend to get scattered around the surface of the hard drive. This can lead to cross linked files, problems with software, and reduced system performance. Running a "defrag" takes each of these scattered bits of information and lines them up neatly in concentric circles on the hard drive. Your system will perform faster after defragmentation, and certain types of software problems will be eliminated. To run the built in Windows defrag program, click on START -> PROGRAMS -> ACCESSORIES - SYSTEM TOOLS -> DISK DEFRAGMENTER.

REINSTALL THE OS: Reinstalling your Windows operating system is one of the best cures to an enormous number of common computer problems.

Test Data: No Test Data for this Experiment

Errors: No Errors for this for this Experiment

Result: Software Troubleshooting is completed on system software

Viva Questions:

1. What are the Common Software problems and solutions
There are numerous computer software issues that are elementary to fix, but hard to diagnose. When you successfully identify the appropriate problem, it becomes easy to iron out the pitfall. Now, let's share the common software problems and solutions according to experience.

1. Viruses 2.Malware 3.Spyware

2. What isVirus
It is a very generic problem with your computer. Your computer gets this problem by merely visiting a website. Some of the symptoms of PC viruses are strange behavior in the OS, non-responsive applications and slow performance.
However, do not get scared because the solution to this problem is not hard. You can install antivirus program in your computer to get rid of this problem
.
3. What is Malware
It is another generic problem that infects your computer. Malware means malicious software. Worms and Trojan Horses are some of the examples of common malware. Malware often enters your computer via mail attachments.It is really difficult to free your computer from malware. It is always suggested that you do a system restore and reinstall your operating system. You can go for program such as Malwarebytes Anti-Malware for less powerful malware.

4.Spyware

It is the most generic computer problem. Your computer can pick spyware from just about anything. Slowdown of computer is a symptom of spyware. You may also notice some certain programs that you have never installed in your computer.

But the good thing is that you can find numerous programs in the market that can remove spyware, some of them are free as well.

5. What are the measures should be taken when system slows down

If your computer doesn't have any of the aforementioned problems, but still it is performing slowly, you need to do some couple of actions to fix the problem.

Just execute a disk cleanup: "Start > All Programs > Accessories > System Tools > Disk Cleanup."

Defragment your hard drive: "Start > All Programs > Accessories > System Tools > Disk Defragmenter."

6. What should be done when some file is missing error occurred ?

The System File Checker (SFC) tool enables you to scan for – and replace – corrupt and missing fi les. If you use XP you can use it to scan your entire drive, while in Vista and Windows 7 it can verify individual fi les and folders too. If you have an installation CD, keep it handy in case it's needed.

7. **PC keeps rebooting after Windows Update**

If your PC gets stuck in a cycle of rebooting during the update process, you need to undo the updates using System Restore. If your computer came without a Windows disc, look for an option to access recovery options, or tap [F8] before Windows starts loading, and then choose "Repair your computer".

If you have an installation disc, boot from it, select your language and then choose "Repair your computer". In both cases, when the menu appears, choose System Restore to undo the update.

8. What is antivirus software?

Ans: Anti virus Software is a program that installed on your computer, it helps to protect computer against most viruses, worms,Trojan Horses.

9. Define worm?

Ans:Worms are self replicating viruses that reside in the active memory of computer.

`10. What are the advantages of antivirus software?

By using Anti virus Software you can keep your computer healthy and protects from malicious act.

11.What are the types of antivirus software's available?

Ans: Avast, Antivira, Kaspersky, Quickheal, Symantec , AVG,

12. What is Torjan Horse?

A destructive <u>program</u> that masquerades as a benign <u>application</u>. Unlike <u>viruses</u>, Trojan horses do not replicate themselves but they can be just as destructive. One of the most insidious types of Trojan horse is a program that claims to rid your computer of viruses but instead introduces viruses onto your computer.

13. What are networks Worms?

Network worms can exploit network configuration errors (for example, to copy themselves onto a fully accessible disk) or exploit loopholes in operating system and application security. Many worms will use more than one method in order to spread copies via networks.

14. What is phishing?

phishing is a term used to describe a malicious individual or group of individuals who scam users. They do so by sending e-mails or creating web pages that are designed to collect an individual's online bank, credit card, or other login information. Because these e-mails and web pages look like legitimate companies users trust them and enter their personal information.

15. What is Troubleshooting?

Trouble shooting is the procedure to solve the problems and giving the solutions to them.

16. What is software Trouble shooting?

Is referred to removal of the problems arising due to system software or application software

17. What is the Defragmentation?

Defragmenting a computer is a process for cleaning out fragmented files and folders on a hard drive.

18. Define Device Drivers?

Device Driver is a computer program allowing higher-level computer programs to interact with a hardware device

19 What should be done when Error messages encountered during boot before Windows loads

 Ensure that your computer BIOS settings are correctly configured to the hardware that is installed in your computer Error messages while windows loading

20 What should we do when we are unable to getinto Normally windows?

If you are unable to get into Normal windows and believe that removing or uninstalling a program or changing a setting may help enable you to get into windows , boot the computer into windows XP safe mode

PROBLEM 7:

Orientation & Connectivity Boot Camp: Students should get connected to their Local Area Network and access the Internet. In the process they configure the TCP/IP setting. Finally students should demonstrate, to the instructor, how to access the websites and email. If there is no internet connectivity preparations need to be made by the instructors to simulate the WWW on the LAN

AIM: To learn Local Area Network and access the Internet. In the process they configure the TCP/IP setting. Finally students should demonstrate, to the instructor, how to access the websites and email

Hardware Requirements: Personal Computer, LAN Card, LAN cables

Software Requirements: Operating System

THEORY:

The internet is a worldwide, publicly network of interconnected computer networks

LOCAL AREA NETWORK:

LANs are privately owned networks within a single building or campus of up to few kilometers in size.

METROPOLITON AREA NETWORK

MANs are group of networks which are located in different metropolitan cities, within a city covering different areas.

WIDE AREA NETWORK:

A WAN is a network that connects computers across a large geographic area such as a city or country.

Classes of Networks:

Class Type	Subnet Mask	1st Octet Range	No. of Computers
Class A	255.0.0.0	0-124	256X256X256
Class B	255.255.0.0	125-198	256X256
Class C	255.255.255.0	199-225	256
Class D	Reserved for new researches		

TCP/IP (Transmission Control Protocol/Internet Protocol):

Collection of methods used to connect servers on the internet and to exchange data.

HTML (Hyper Text Markup Language):

The coding used to control the look of documents on the web

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HTTP (Hyper Text Transfer Protocol):

Part of a URL that identifies the location as one that uses HTML

IP (Internet Protocol):

A format for contents and addresses of packets of information sent over the internet

IP ADDRESS:

An identifier for a computer or device on a TCP/IP network

SEARCH ENGINE:

A program that searches documents located on the Internet for keywords or phrases entered by a person browsing the net.

Internet Connection requirements:

- TCP/IP protocol
- Client Software
- ISP Account

Means of communication to the net

- telephone Modem
- Ethernet
- ISDN(Integrated Services Digital Network)
- DSL(Digital Subscriber Line)
- Satellite.

PROCUDURE:

Open Network Connections.

Click the connection you want to configure, and then, under **Network Tasks**, click **Change settings of this connection**.

Do one of the following:

If the connection is a local area connection, on the **General** tab, under **This connection uses the following items**, click **Internet Protocol (TCP/IP)**, and then click **Properties**.

If this is a dial-up, VPN, or incoming connection, click the **Networking** tab. In **This connection uses the following items**, click **Internet Protocol (TCP/IP)**, and then click **Properties**.

Do one of the following:

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If you want IP settings to be assigned automatically, click **Obtain an IP address automatically**, and then click **OK**.

If you want to specify an IP address or a DNS server address, do the following:

Click **Use the following IP address**, and in **IP address**, type the IP address.

Click **Use the following DNS server addresses**, and in **Preferred DNS server** and **Alternate DNS server**, type the addresses of the primary and secondary DNS servers.

To configure DNS, WINS, and IP Settings, click **Advanced**.

To make a Local Area Connection

If you have a network adapter installed, and have set up a home or small office network, you are connected to a local area network (LAN). You are also connected to a LAN if your Windows XP Professional computer is part of a corporate network. When you start your computer, your network adapter is detected and the local area connection automatically starts. Unlike other types of connections, the local area connection is created automatically, and you do not have to click the local area connection in order to start it.

Result: LAN Connectivity Task is completed.

Viva Questions:

1) What is a Link?

A link refers to the connectivity between two devices. It includes the type of cables and protocols used in order for one device to be able to communicate with the other.

2) What are the layers of the OSI reference model?

There are 7 OSI layers: Physical Layer, Data Link Layer, Network Layer, Transport Layer, Session Layer, Presentation Layer and Application Layer.

3) What is backbone network?

A backbone network is a centralized infrastructure that is designed to distribute different routes and data to various networks. It also handles management of bandwidth and various channels.

4) What is a LAN?

LAN is short for Local Area Network. It refers to the connection between computers and other network devices that are located within a small physical location.

5) What is a node?

A node refers to a point or joint where a connection takes place. It can be computer or device that is part of a network. Two or more nodes are needed in order to form a network connection.

6) What are routers?

Routers can connect two or more network segments. These are intelligent network devices that store information in its routing table such as paths, hops and bottlenecks. With this info, they are able to determine the best path for data transfer. Routers operate at the OSI Network Layer.

7) What is point to point link?

It refers to a direct connection between two computers on a network. A point to point connection does not need any other network devices other than connecting a cable to the NIC cards of both computers.

8) What is anonymous FTP?

Anonymous FTP is a way of granting user access to files in public servers. Users that are allowed access to data in these servers do not need to identify themselves, but instead log in as an anonymous guest.

9) What is subnet mask?

A subnet mask is combined with an IP address in order to identify two parts: the extended network address and the host address. Like an IP address, a subnet mask is made up of 32 bits.

10) What is the maximum length allowed for a UTP cable?

A single segment of UTP cable has an allowable length of 90 to 100 meters. This limitation can be overcome by using repeaters and switches.

11) What is data encapsulation?

Data encapsulation is the process of breaking down information into smaller manageable chunks before it is transmitted across the network. It is also in this process that the source and destination addresses are attached into the headers, along with parity checks.

12) Describe Network Topology

Network Topology refers to the layout of a computer network. It shows how devices and cables are physically laid out, as well as how they connect to one another.

13) What is VPN?

VPN means Virtual Private Network, a technology that allows a secure tunnel to be created across a network such as the Internet. For example, VPNs allow you to establish a secure dial-up connection to a remote server.

14) Briefly describe NAT.

NAT is Network Address Translation. This is a protocol that provides a way for multiple computers on a common network to share single connection to the Internet.

15) What is the job of the Network Layer under the OSI reference model?

The Network layer is responsible for data routing, packet switching and control of network congestion. Routers operate under this layer.

16) How does a network topology affect your decision in setting up a network?

Network topology dictates what media you must use to interconnect devices. It also serves as basis on what materials, connector and terminations that is applicable for the setup.

17) What is RIP?

RIP, short for Routing Information Protocol is used by routers to send data from one network to another. It efficiently manages routing data by broadcasting its routing table to all other routers within the network. It determines the network distance in units of hops.

18) What are different ways of securing a computer network?

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There are several ways to do this. Install reliable and updated anti-virus program on all computers. Make sure firewalls are setup and configured properly. User authentication will also help a lot. All of these combined would make a highly secured network.

19) What is NIC?

NIC is short for Network Interface Card. This is a peripheral card that is attached to a PC in order to connect to a network. Every NIC has its own MAC address that identifies the PC on the network.

20) What is WAN?

WAN stands for Wide Area Network. It is an interconnection of computers and devices that are geographically dispersed. It connects networks that are located in different regions and countries.

21)What is MAC address?

It is the 48 bit hardware address of LAN card. MAC address is usually stored in ROM on the network adapter card and it is unique.

22)What are the perquisites to configure server?

•   LAN card should be connected:

•   Root (partition on which window is installed) should in NTFS

•   Server should be configured with a static IP address

23)How we will configure ADS?

Start ==> RUN ==> DCPROMO

24)How will you test LAN card?

Ping 127.0.0.1

If getting reply its fine

25)What are the difference between DOMAIN and WORKGROUP?

Workgroup:-

(i)Every PC is responsible for its security own.

(ii)No centralize administration

(iii)Main aim to save hardware recourse

(iv)Best suite in school, training institute, cyber café

Domain: -

(i)Server is responsible for data safety.

(ii)Centralize administration

(iii)Main aim is to secure data

(iv)Best suite in company environments

26)Which command is used to check the IP address of your system?

ipconfig

27)Which set wizard will run to do peer to peer networking in XP?

Small home and office setup wizard

28)Which command is used to check the physical connectivity between two computers?

Ping

29)What is map drive?

A special feature that will map network resource to my computer.

30)What is Proxy Server?

Most large businesses, organizations, and universities these days use a proxy server. This is a server that all computers on the local network have to go through before accessing information on the Internet. By using a proxy server, an organization can improve the network performance and filter what users connected to the network can access.

PROBLEM 8:

Web Browsers, Surfing the Web: Students customize their web browsers with the LAN proxy settings, bookmarks, search toolbars and pop up blockers. Also, plug-ins like Macromedia Flash and JRE for applets should be configured

PURPOSE: To learn to surf the web

Hardware Requirements: Personal Computer

Software Requirements: Operating System, Web Browser, Plug-ins

THEORY:

- Web browser provides the means to the searching and also helps to download the web content.
- Web browsers support most of the famous Internet Protocols like HTTP, FTP.
- Common file formats a browser accepts are HTML
- Well known browsers natively support a variety of other formats in addition to HTML such as JPEG,PNG,GIF image formats
- Different web browsers available in the market are:
  - ✓ Silver Smith
  - ✓ Mosaic
  - ✓ Netscape
  - ✓ Mozilla
  - ✓ Opera
  - ✓ Lynx
  - ✓ Safari

Bookmark:

Each web browser is built-in with the support of Internet Bookmarks which serve as a named anchor – primarily to URLs. The primary purpose of this book mark is to easily catalog and access web pages that the web browser user has visited or plans to visit, without having to navigate the web to get there.

Pop-up Blockers:

Pop-ups are a form of online advertising on the WWW intended to attract the attention of the users. These pop ups are hosted on the web sites which are frequently visited by the netizens. These pop ups are activated when these web sites open a new web browser window and there by displaying the advertisements.

Plug-ins:

A plug-in is a software component program that interacts with a main application to provide a better integration of the media. The basic difference between application programs and plug-ins is that multimedia files are launched in a separate window where as in plug-ins multimedia play in the browser window.

Few famous plug-ins are:

- Apple Quick Time
- Macromedia flash
- Microsoft Media Player
- Adobe Shockwave
- Sun Microsystems Java Applet

PROCEDURE:

LAN Proxy Settings:

- select **tools** menu in Internet Explorer
- Select **Internet Options**
- Select **Connections**
- You end up in two options
  - ✓**Dial-up and virtual network settings**
  - ✓**LAN setting**
- The selection at this step is dependent on the kind of connection you are trying to configure. They are:
  - ✓ **Dial-up modem connection**
  - ✓ **LAN connection**
  - ✓ **DSL or Cable modem**

Result: Web Browsers, surfing the Web task is completed.

Viva Questions:

1) **Define surfing?**
   Ans: Surfing is an analogy to describe ease with which an expert can use the waves of information flowing around the Internet to get where he wants.

2) **Abbreviate HTML,WWW?**
   Ans: HTML (Hyper Text Markup Language), WWW (World Wide Web)

3) **What is a bookmark?**
   Ans: A bookmark is a saved link to a Web page that has been added to a list of saved links.

4) **Define a plug-in?**
   Ans: Plug-in is a set of software components that adds specific abilities to a larger software application.

5) **What are pop-up ads?**
   Ans: Pop-ups ads are used extensively in advertising on the Web, though advertising is not the only application for pop-up windows.

6) **What are pop-up blockers?**
   Ans: A pop-up blocker (sometimes called a pop-up killer) is a program that prevents pop-ups from displaying in a user's Web browser.

7) **What is a web browser?**

A web browser is a software application for viewing webpages. Microsoft Internet Explorer, Mozilla FireFox, Opera, and Apple Safari are the most common web browsers.

8) What is a safer web browser?
A safer browser has the following characteristics:
Latest version
Automatic software patches and upgrades
Anti-phishing functionality to notify you when you try to access a suspected fake website
128-bit encryption that protects data during transmission

9) What are HTTP and HTTPS?
HTTP (HyperText Transfer Protocol) is a protocol used to send data over the internet. HTTPS (HyperText Transfer Protocol using Secure Socket Layer) is a protocol that encrypts data to send it over the internet more safely. When you enter a URL into a browser, the address will begin with either HTTP or HTTPS

10) What is SSL (Secure Sockets Layer)?
SSL (Secure Sockets Layer) is a secure communications protocol used by browsers, websites, and applications to protect information sent over the internet. SSL protocol uses encryption and authentication technologies to make sure only the intended parties can read the information.

11) What is your definition of the term Cross-Site Scripting? What is the potential impact to servers and clients?
Goal of question This question will determine if the applicant is well versed in the terminology used in web security. The applicant needs to be able to articulate highly technological topics to a wide audience. The second question will help to verify that the applicant fully understands how XSS attacks work and the impact to client information.

12) Which is the fastest web browser?
Microsoft Internet Explorer usually has the fastest startup time on Microsoft Windows machines, although this is mostly because the real "price" of starting it up is paid during the booting of your Microsoft Windows system,Opera is the fastest browser in terms of placing minimal demands on an older computer. Firefox is a very fast descendant of Mozilla, well-tuned for real-world browsing experiences, with an interface that speeds up the way you get things done in a web browser by offering features like tabbed browsing and a more elegant "find" feature -- another relevant kind of speed

13) A website says I have spyware, is it true?
hose "spyware detected" and similar messages that appear on specific web pages on top of the actual content are ads.

14) What is Cross-Site Scripting?
An attack technique that forces a web site to echo client-supplied data, which execute in a users web browser. When a user is Cross-Site Scripted, the attacker will have access to all web browser content (cookies, history, application version, etc). XSS attacks do not typically directly target the web server or application, but are rather aimed at the client. The web server is merely used as a conduit for the XSS data to be presented to the end client. See also "Client-Side Scripting".

15) What is hyperlink?

In computing, a hyperlink (or link) is a reference to a document that the reader can directly follow, or that is followed automatically. The reference points to a whole document or to a specific element within a document. Hypertext is text with hyperlinks. Such text is usually viewed with a computer. A software system for viewing and creating hypertext is a hypertext system. To hyperlink (or simply to link) is to create a hyperlink. A user following hyperlinks is said to navigate or browse the hypertext.

16) Explain about Opera (web browser)?

Opera is a web browser and Internet suite developed by the Opera Software company. The browser handles common Internet-related tasks such as displaying web sites, sending and receiving e-mail messages, managing contacts, chatting on IRC clients, downloading files via BitTorrent, and reading Web feeds. Opera is offered free of charge for personal computers and mobile phones.

17) Explain about Safari (web browser)?

Safari is a web browser developed by Apple. First released as a public beta on January 7, 2003 on the company's Mac OS X operating system, it became Apple's default browser beginning with Mac OS X v10.3 "Panther." Safari is also the native browser for the iPhone OS. A version of Safari for the Microsoft Windows operating system, first released on June 11, 2007, supports Windows XP, Windows Vista, and Windows 7. The current stable release of the browser is 4.0.4 for both Mac OS X and Windows.

18) Have you any idea about Netscape?

Netscape's web browser was once dominant in terms of usage share, but lost most of that share to Internet Explorer during the first browser war. By the end of 2006, the usage share of Netscape browsers had fallen, from over 90% in the mid 1990s, to less than 1%. Netscape developed the Secure Sockets Layer Protocol (SSL) for securing online communication, which is still widely used, as well as JavaScript, the most widely-used language for client-side scripting of web pages.

19) What you know about Mozilla Firefox?

Mozilla Firefox is a free and open source web browser descended from the Mozilla Application Suite and managed by Mozilla Corporation. A Net Applications statistic put Firefox at 24.41% of the recorded usage share of web browsers as of January 2010, making it the second most popular browser in terms of current use worldwide after Microsoft's Internet Explorer, and the most used browser independent of any one operating system. Other sources put Firefox's usage share at between 21% and 32% and generally trending upward.

20) What is Plug-in?

In web browsers, a plug-in (also called plugin, addin, add-in, addon, add-on, snap-in or snapin) consists of a computer program that interacts with a host application (a web browser or an email client, for example) to provide a certain, usually very specific, function "on demand". Add-on is often considered the general term

21).What are the features used by Web browsers?

- Web browser provides text based user interfaces with the features supporting HTML that are rich in many file formats.

- It uses protocols that support the transaction of one form to another form using the web browsers.

- Web browsers use the components that support the e-mail or other features like IRC that

22)What are the privacy and security features being provided by web browsers?

- Web browser supports HTTP secure method that allows more security for the sites that are involved in day to day basis transaction.

- Security offers quick and easy way to remove the unwanted material or the things that are stored without permission like cache, cookies and history.

- Security is being provided by the use of blockers that blocks unwanted access to the websites from the outside.

- Web browser uses other features like disabling of JavaScript and pop up blockers to block any unwanted scripts or messages to run on the system.

- Web browser also uses the security concerns in regard of blocking the access to the secure sites that provides money transfer facilities, etc.helps in communication purpose with other platforms.

23) What is the support being provided to web browser?

- Web browser supports the HTML version that is used to create the website in a very simple manner without using the complex tools.

- Web browser supports rapid development of the websites and tools that can be used for the creation of it.

24).What are the different web browser tools available to accelerate the speed of the web page?

- Web accelerators are used to increase the loading of the web page faster and by providing extra features of caching, etc.

- There are tools that are provided like internet accelerator of browser accelerator that provides security from the spyware and adware programs.

- The security from the programs are required as they are harmful for the computer and the tools uses the strategies of pre-caching in which the data is automatically cached and when the website is opened again then the fetching is being done from the place where the content is saved.

- Registry tweaks are used to improve the performance offering the risk management techniques for downloading the resources.

25). What is the way to clear the browser cache?

- The browser cache consists of the temporary storage space on the computer's disk or the device that is being used for storing all the information.

- The browser cache consists of the information regarding the recently viewed web pages and the files that are in association with them.

- The cache allows the browser to render the pages that are being visited and allow them to reload using the entire page.

26)What is the use of incognito browsing?

- Incognito browsing keeps the website secure and safe as it doesn't store any cookies for the sites that are being visited.

- Web pages that are viewed in the incognito mode are not visible in the browser's history or the search history that is being performed.

- No trace is being left of the website being visited as it doesn't store the cookies or any files.

- It ensures the activities performed by the user are not traced and the security is being provided to the user for the use of web application.

- It is the safest methods to use as it leave no track behind and save the user from the sites that ask for private information.

27).What is the purpose of web browser?

Web browser is used to run the software application that allows retrieving, presenting and traversing the information from one place to another.

28).What is the primary function of the Web browsers?

- Web browser functions are to provide the resources or information to the user when asked by them.

- It processes the user inputs in the form of URL like http://www.google.com in the browser and allows the access to that page.

- URL is used to identify the resources and fetch them from the server and displays it to the client.

29).What are the different types of components involved in URI?

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- URI is known as Uniform Resource Identifier as it identifies the resources requested by clients and fetches them from the server.

- The components that are used in URI are as follows:

- http: is the first thing that is used in a URL and it is used to tell what kind of resource that needs to be retrieved over the server.
> This includes the server details and it is itself a protocol known as Hypertext Transfer Protocol (HTTP) that is used to fetch the information.

- Web browsers sometimes use the secure protocol that is represented using HTTPs used in case of secure transaction over the internet.

- ftp: is also a protocol that is known as File Transfer Protocol that allows the transfer from a file from local computer to server.

30)A website says I have spyware, is it true?
> hose "spyware detected" and similar messages that appear on specific web pages on top of the actual content are ads.

PROBLEM 9:

Search Engines & Netiquette: Students should know what search engines are and how to use the search engines. A few topics would be given to the students for which they need to search on Google. This should be demonstrated to the instructors

AIM: To know what search engines are and how to use the search engines.

Hardware Requirements: Personal Computer

Software Requirements: Operating System, Web Browser

THEORY:

Search engine:

A search engine can be defined as a web site with tools which help you to find information on the internet

Function of a search engine:

Search Engine can the search any data based on keywords, searches on web and finding the locations various web sites databases with the related information and gives the different list of results to the Web Browser.

Limitations:

Search engines visit web sites only several weeks. Search engines cannot see information in other data bases later on.

On the internet a search engine is a coordinated set of programs that includes: A spider (crawler or bot) that goes to every page or representative pages on every web site that wants to be searchable and reads it, using hypertext links on each page to discover and read site's other pages.

Pros:

- You can select the search terms
- You can use the same search terms with multiple search engines
- You can change search terms as much as you wish
- You will normally receive numerous links
- Its fast

Cons:

- There are so many different search engines it may be difficult to choose
- You will normally receive too many links often making it difficult to identify the most relevant sites.
- The vast majority of links may be only marginally relevant or altogether irrelevant

EX: Alta Vista, Ask Jeeves, Google, Lycos, Yahoo, Bing, Etc...

Meta Search Engines:

Meta search engines or "metacrawlers" don't crawl the web themselves. Instead they search the resources of multiple search engines by sending a search to several search engines at once aggregating the result.

Pros:

- You only need to use one search tool which is time- efficient
- You only need to learn how to use one search engine reducing learning curve
- You benefit from the difference among several search tools at once

Cons:

- Meta search services may not be able to leverage each individual search engines full range of query tools resulting in less refined searches

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- You can not personally select the search engines queried by Meta search services.

Ex: DogPile, Mamma, Vivisimo, Meta Search Engine, etc.

Result: Identification of Search Engine process is completed.

<u>**Viva Questions:**</u>

1) Define search engine?

Ans: A search engine is a sort of a page that shows the list of all the web sites along with the information on it.

2) What is a spider?

Ans: A spider is a program that visits Web sites and reads their pages and other information in order to create entries for a search engine index.

3) What are popular search engines?

Ans: Google, Yahoo!, Bing, Ask.com, info.com, Meta Crawler, etc.

4) What is a meta search engine?

Ans: A metasearch engine is a search tool that sends user requests to several other search engines and/or databases and aggregates the results into a single list

5) Give the main purpose of WWW?

Ans: WWW (World Wide Web) is a system of interlinked hypertext documents accessed via the Internet.

6) What is SEO?

SEO stands for Search Engine Optimization and It is a process/ technique to optimize your website or WebPages according to improve its SERP (Search Engine Result Pages) Ranking.

7) How many types of SEO, describe?

Generally SEO techniques categorized in two parts

1. On-Page SEO
2. Off-Page SEO

Onpage SEO contains all measures (that search engines took from the website) on your website coding that is fully controlled by the developer. It contains title, meta keywords, meta descriptions, heading tags, content optimization etc. In simple words any changes that made within the websites ranging from website navigation structure to content placement strategy is known as on-page optimization.

Offpage SEO Activities that are done outside your website to improve it's position in Google search result is called off page SEO. Generally all link building activities comes in this category. Below is the list of few off page methods.

- Directory Submission
- Social Bookmarking

- Search Engine Submission
- Profile Submission
- Business Listing
- Press Release
- Article Submission
- Social Media Submissions

8) Which is the popular tool to track your website visitors?

Google Analytics - This tool is Freemium (Free + Premium) that tracks and reports Website Traffic, like how many visitors are online, from which location, how much time they spend time to particular page. You can check your website traffic in different segments like traffic from organic search, paid search or direct search. You can also monitor your traffic from different devices like Desktop, Mobile, Tablest, I-Phones with search keywords and landing pages.

9) What is Organic Search and Organic Search Result?

The searching made through the Search Engines Query box known as Organic Search and the listing of pages that appears below the query box is called organic search result.

10) What is Black Hat SEO and White Hat SEO?

Black Hat SEO refers the technique to improve website ranking by breaking the rules, policies of Search Engines. Hidden text, Cloaking, Spamdexing etc are some well known Black Hat SEO practices.

White Hat SEO refers the technique to improve website ranking by following the rules, policies of Search Engines like quality content, related Title, Meta tags, H1, etc.

11) What are the backlinks?

All links outside from your own website that link back to your website or webpage are called backlinks.

12) What is Googlebot?

Googlebot is software or a program that automatically crawled, indexed and cached the new or old webpages over the internet and adds them to Google index. It is also known as spider or crawler.

13) What is robots.txt?

It's a special kind of text file containing the instruction for Crawlers to crawl webpage(s), domains, files or directory. We can also instruct to crawlers to not do crawl particular webpage(s), domains, files or directory.

14) Where robots.txt file uploaded to hosting directory?

A robots.txt file is uploaded in home/ root folder on the hosting server.

15) Can webpage extension effects the SEO?

No, extensions do not effect to the SEO. You can use .html, .htm, .asp, .aspx, .php etc depending on used technology to create website.

16) What is robots.txt and how it is useful for SEO?

robots.txt enables restricting crawling where it is not needed. This file has set of instruction that tell to the Search Engines to access and not to crawl any part of the website.

17) What do webmaster tools do?

The webmaster tools do following things:

- Analyzing of robots.txt file.
- Analyzing pages of website which are not opening and optimized.
- Submit URL to crawl by Search Engine.
- Remove already crawled URL from Search Engine Database.
- Specifying preferred domains.
- Analyzing issues with Title, Meta Description, Image Alt and Anchor Tags.
- To display crawling and indexing errors.
- Identifying that website is mobile friendly or not.
- Submit and Analyze sitemap file.
- Display total submitted indexed pages in the Search Engine Database.

18) What are the some popular Search Engines?

Google, Bing, Ask, Yahoo!, DuckDuckGo

19) What is keyword stuffing?

To use littering keywords that are not relevant to the page, and using of same keywords on the multiple pages known as keyword stuffing, to fix this issues use Unique and Meaning, Descriptive keywords for different pages.

20) What is Search Engine Submission?

Webmasters and Website owners need to submit their website and web pages to the search engines along with the keywords, soon after submission the website and web page URL a Search Engine bot will crawl submitted URL and update the URL in their indexes.

PROBLEM 10:

Cyber Hygiene: Students would be exposed to the various threats on the internet and would be asked to configure their computer to be safe on the internet. They need to first install an antivirus software, configure their personal firewall and windows update on their computer. Then they need to customize their browsers to block pop ups, block active x downloads to avoid viruses and/or worms

AIM: To learn various threats on the internet and configure the computer to be safe on the internet.

Hardware Requirements: Personal Computer

Software Requirements: Operating System, Antivirus Software

THEORY:

Antivirus:

Antivirus software is a program that either comes installed on your computer or that you purchase and install yourself. It protects your computer against most viruses, worms, Trojan horses and other unwanted invaders that can make your computer sick.

Firewall:

A firewall is a special software or hardware designed to protect a private computer network from unauthorized access. A firewall is a set of related programs located at a network gateway server which protects the resources of the private network from users from other networks.

Types of Internet Threats

- Viruses
- Network Worms
- Trojans
- Spyware / Adware
- Other Malware
- Other Threats

Viruses

- Main purpose is to spread and infect files
- Attach to a file and replicate when file is executed
- More than 100 000 known viruses exists in the world today
- Several hundred new viruses are discovered every month

Network Worms

- Self-replicating Viruses that reside in the active memory of a computer.
- Worms send themselves out to the Internet from infected systems.
- Either include tiny e-mail server or search for unprotected shared network drives to unload.

Trojan Programs

Programs that installs themselves stealthily via Internet & provide access for malicious use

Threats enabled by (/through) Trojans

- Data stealing
- Distributed spam eMails

Spyware / Adware

- Cookies – Track you online
- Browser Hijackers – Changes default home page
- Tracking Cookies – Gathers info of web usage

Other Threats

- Phishing
  - Confidential information stealing by fraud emails & web sites (author falsified)
  - Several millions of Phishing messages have been sent world wide
  - Fastest growing threat today

PROCEDURE:

Installing Symantec antivirus for Windows:

- Insert Symantec antivirus CD into your CD drive
- Double click on the Symantec-setup.exe
- The installer will open
- Click **next** to proceed
- License agreement will open. Click **I accept the terms of the license agreement** and then click **next.**
- Follow the instruction on the screen to complete the installation.

Block Pop ups:

- In the IE open **tools>pop-up blocker**
- Click on **Turn on Pop- up blocker**

Windows Firewall:

- Go to **Start>control panel>Network and Internet Connections>windows firewall**
- In the general tab check the **On(recommended)** box
- If you don't want any exceptions check on **Don't allow exceptions box**

Result: Identification of various threats, attacks, worms from Internet and Installation of Antivirus Software is completed.

Viva Questions:

1) What is antivirus software?

Ans: Anti Virus Software is a program that installed on your computer, it helps to protect your computer against most viruses, worms, Trojan Horses, etc.

2) Define virus

Ans: Virus is a program which performs malicious acts, such as deleting files, accessing personal data, or using your computer to attack other computers.

3) Define worm?

Ans: Worms are self replicating viruses that reside in the active memory of computer.

4) What are the advantages of antivirus software?

Ans: By using Anti Virus Software you can keep your computer healthy and protects from malicious acts.

5) What are the types of antivirus software's available?

Ans: Avast, Antivira, Kaspersky, QuickHeal, Symantec, AVG, Etc.

6) What Is The Malware?

A is software used or created to disrupt computer operation, gather sensitive information, or gain access to private computer systems.
It can appear in the form of code, scripts, active content, and other software.
Malware' is a general term used to refer to a variety of forms of hostile, intrusive, or annoying software

7) What Are The Uses Of Usage Of Malware?

Many early infectious programs, including the first Internet Worm, were written as experiments or pranks.
Today, malware is used primarily to steal sensitive personal, financial, or business information for the benefit of others.
• Malware is sometimes used broadly against government or corporate websites to gather guarded information, or to disrupt their operation in general.
However, malware is often used against individuals to gain personal information such as social security numbers, bank or credit card numbers, and so on.

8) What Are The Types Of Malware?

Viruses
Trojan horses
Worms
Spyware
Zombie
Phishing
Spam
Adware
Ransomware

9) What Is A Virus?

A program or piece of code that is loaded onto your computer without your knowledge and runs against your wishes.
Viruses can also replicate themselves.
All computer viruses are manmade.
Viruses copy themselves to other disks to spread to other computers.
They can be merely annoying or they can be vastly destructive to your files.

10) Give Few Examples Of Viruses?

Macro virus.
Boot virus.
Logic Bomb virus.
Directory virus.
Resident virus.

11) What Is Trojan Horse?

A Trojan Horse program has the appearance of having a useful and desired function.
A Trojan Horse neither replicates nor copies itself, but causes damage or compromises the security of the computer.
A Trojan Horse must be sent by someone or carried by another program and may arrive in the form of a joke program or software of some sort.
These are often used to capture your logins and passwords.

12) Give Few Examples?

Example of Trojan Horses :
Remote access Trojans (RATs)
Backdoor Trojans (backdoors)
IRC Trojans (IRCbots)
Keylogging Trojans

13) What Are Worms?

A computer worm is a self-replicating computer program.
It uses a network to send copies of itself to other nodes (computers on the network) and it may do so without any user intervention.
It does not need to attach itself to an existing program.

14) What Is Spyware?

Spyware is a type of malware installed on computers that collects information about users without their knowledge.
The presence of spyware is typically hidden from the user and can be difficult to detect.
Spyware programs lurk on your computer to steal important information, like your passwords and logins and other personal identification information and then send it off to someone else.

15) What Is Zombie?

Zombie : Zombie programs take control of your computer and use it and its Internet connection to attack other computers or networks or to perform other criminal activities.

16) What Is Phishing?

• Phishing (pronounced like the word 'fishing') is a message that tries to trick you into providing information like your social security number or bank account information or logon and password for a web site.

• The message may claim that if you do not click on the link in the message and log onto a financial web site that your account will be blocked, or some other disaster.

17) What Is Ransomware?

Ransomware is a form of malware that essentially holds a computer system captive while demanding a ransom.

The malware restricts user access to the computer either by encrypting files on the hard drive or locking down the system and displaying messages that are intended to force the user to pay the malware creator to remove the restrictions and regain access to their computer.

18) What Is Spam?

Spam is email that you did not request and do not want.
One person's spam is another's useful newsletter or sale ad.
Spam is a common way to spread viruses, trojans, and the like.

19) What Is Adware?

Adware (short for advertising-supported software) is a type of malware that automatically delivers advertisements.
Common examples of adware include pop-up ads on websites and advertisements that are displayed by software.
Often times software and applications offer "free" versions that come bundled with adware.

20) How Malware Spreads?

Malware is a program that must be triggered or somehow executed before it can infect your computer system and spread to others.

Here are some examples on how malware is distributed:

Social network.
Pirated software.
Removable media.
Emails.
Websites.

PROBLEM 9:

Develop your home page using HTML consisting of your photo, name, address and education details as a table and your skill set as a list.

AIM: To create home page using HTML

Hardware Requirements: Personal Computer

Software Requirements: Operating System, Web Browser, Notepad

THEORY:

HTML is a language for describing web pages. HTML stands for **H**yper **T**ext **M**arkup **L**anguage. A markup language is a set of markup **tags.** The tags **describe** document content. HTML documents contain HTML **tags** and plain **text.** HTML documents are also called **web pages.**

HTML tags are keywords (tag names) surrounded by **angle brackets** like <html>.HTML tags normally **come in pairs** like and i.e. Start Tag (<>) and End Tag (</>).

HTML Page Structure

<html>

<head>

<title>Title of the Document </title>

</head>

<body>

……….

</body>

</html>

- The text between <html> and </html> describes the web page
- The text between <body> and </body> is the visible page content
- The text between <head> and </head> is the description about the document.
- The text between <title> and </title> shows the title of the document

HTML Versions

Version	Year
HTML	1991
HTML+	1993
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML 1.0	2000
HTML5	2012
XHTML5	2013

Basic HTML Tags:

S.No.	Tag	Description	Example

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1	<!--...-->	Defines a comment	<!--This is a comment. Comments are not displayed in the browser-->
2	<a>	Defines a hyperlink	Google
3	<abbr>	Defines an abbreviation	The <abbr title="Hyderabad">HYD</abbr>
4	<audio>	Defines sound content	<audio> <source src="horse.mp3" type="audio/mpeg"> </audio>
5		Defines bold text	and this is bold text
6	<body>	Defines the document's body	<body>The content of the document....</body>
7	 	Defines a single line break	This text contains a line break.
8	<caption>	Defines a table caption	<caption>Caption for Table</caption>
9	<center>	Defines centered text	<center>This text will be center-aligned.</center>
10	<dl>	Defines a description list	<dl> <dt>Coffee</dt> <dd>Black hot drink</dd> </dl>
11	<footer>	Defines a footer for a document or section	<foter>Page No:1</footer>
12	<frame>	Defines a window (a frame) in a frameset	<frameset cols="25%,*,25%"> <frame src="frame_a.htm"> <frame src="frame_b.htm"> <frame src="frame_c.htm"> </frameset>
13	<frameset>	Defines a set of frames	
14	<h1> to <h6>	Defines HTML headings	This is heading 1 This is heading 2 This is heading 3 This is heading 4 This is heading 5 This is heading 6
15	<head>	Defines information about the document	<head> <title>Title of the document</title> </head>

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16	\<hr\>	Defines a thematic change in the content	\<p\> \</p\>\<hr\> Horizontal line\<p\>\</p\>
17	\<html\>	Defines the root of an HTML document	\<html\> \</html\>
18	\<i\>	Italic the Text	\<i\> Italic Word \</i\>
19	\<img\>	Defines an image	\<img src="smiley.gif" height="42" width="42"\>
20	\<li\>	Defines a list item	\<li\>Coffee\</li\> \<li\>Tea\</li\>
21	\<mark\>	Defines marked/highlighted text	\<mark\>text background color\</mark\>
22	\<ol\>	Defines an ordered list	\<ol\> \<li\>Coffee\</li\> \<li\>Tea\</li\> \</ol\>
23	\<p\>	Defines a paragraph	\<p\>This is some text in a paragraph.\</p\>
24	\<select\>	Defines a drop-down list	\<select\> \<option value="volvo"\>Volvo\</option\> \<option value="mercedes"\>Mercedes\</option\> \</select\>
25	\<small\>	Defines smaller text	\<small\>shows small text\</small\>
26	\<table\>	Defines a table	\<table border="1"\> \<tr\> \<th\>Month\</th\> \<th\>Savings\</th\> \</tr\> \<tr\> \<td\>January\</td\> \<td\>$100\</td\> \</tr\> \</table\>
27	\<td\>	Defines a cell in a table	
28	\<tr\>	Defines a row in a table	
29	\<th\>	Defines a header cell in a table	
30	\<textarea\>	Defines a multiline input control (text area)	\<textarea rows="4" cols="50"\> Enter the message \</textarea\>
31	\<thead\>	Groups the header content in a table	\<thead\> \<tr\> \<th\>Month\</th\> \<th\>Savings\</th\> \</tr\> \</thead\>

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32	<u><title></u>	Defines a title for the document	<title>HTML Reference</title>
33	<u> </u>	Defines an unordered list	 Coffee Tea Milk
34	<u><u></u>	Defines text that should be stylistically different from normal text	<p>This is a <u>paragraph</u>.</p>
35	<u><marquee></u>	The marquee tag used to scroll the text up, down, left or right.	<marquee direction="right">Welcome to HTML</marquee>

TASK: Creating a Student Personal Profile as a Web Page

HTML Code:

<html>

<head>

<title> Personal Data </title>

</head>

<body>

<marquee direction="right">Welcome to HTML</marquee>

<header><u><center>Personal Profile</center></u><header>

<text>

Name:

Father Name:

Date of Birth:

<img src="New Picture.png" height="150" width="150" align="right" hspace="500">

Address:
<textarea columns=15 rows=4></textarea>

<u>Education Details</u>

<table border="1">

 <tr>

```html
    <th>S.No.</th>

    <th>Qualification</th>

    <th>College/University</th>

    <th>Year passing</th>

    <th>Percentage></th>

  </tr>

  <tr>

    <td>1</td>

    <td>SSC</td>

    <td>AP Board</td>

    <td>2003</td>

    <td>72</td>

  </tr>

  <tr>

    <td>2</td>

    <td>Intermediate</td>

    <td>AP Board</td>

    <td>2005</td>

    <td>72</td>

  </tr>

  <tr>

    <td>3</td>

    <td>B.Tech</td>

    <td>JNTUH</td>

    <td>2009</td>

    <td>66</td>

  </tr>

  <tr>

    <td>4</td>

    <td>M.Tech</td>
```

```
   <td>JNTUH</td>

   <td>2012</td>

   <td>70</td>

 </tr>

</table>

<b><u>Skill Set:</b></u>

<ul>

<li>Cricket Player</li>

<li>Won 1st Prize in School Quiz competiotion</li>

<li>etc.</li>

</ul>

</body>

</html>
```

OUTPUT:

Result: Creating a Sample Web Page for student personal profile is completed by using HTML Tags.

Viva Questions:

1) **What is HTML?**

   Ans: HTML is a Hyper Text Markup Language used to design the Web Pages

2) **What are the extensions to a HTML page while saving in a Notepad?**

   Ans: .html, .htm

3) **How can you include comments in HTML?**

   Ans: An HTML comment begins with "<!--", ends with "-->"

   Ex: <!-- This is a comment. -->

4) **What is <title> tag?**

   Ans: It shows the title of the HTML page

5) **What is <br> tag? Is there any end tag for this like </br>?**

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Ans: It is used to separate the lines or to start with a new line. End tag </br> is required for this tag.

6) What is semantic HTML?

Semantic HTML is a coding style. It is the use of HTML markup to reinforce the semantics or meaning of the content. For example: In semantic HTML   tag is not used for bold statement as well as <i> </i> tag is used for italic. Instead of these we use and tags.

7) What is image map?

Image map facilitates you link many different web pages using a single image. You can define shapes in images that you want to make part of an image mapping.

8) How to insert a copyright symbol on a browser page?

can insert a copyright symbol by using © or © in an HTML file.

9) How do you keep list elements straight in an HTML file?

You can keep the list elements straight by using indents.

10) Does a hyperlink only apply to text?

No, you can use hyperlinks on text and images both.

11) What is a style sheet?

A style sheet is used to build a consistent, transportable, and well designed style template. You can add these templates on several different web pages.

12) Can you create a multi colored text on a web page?

Yes. To create a multicolor text on a web page you can use   for the specific texts you want to color.

13) Is it possible to change the color of the bullet?

The color of the bullet is always the color of the first text of the list. So, if you want to change the color of the bullet, you must change the color of the text.

14) What is a marquee?

Marquee is used to put the scrolling text on a web page. You should put the text which you want to scroll within the <marquee>......</marquee> tag.

15) How many tags can be used to separate section of texts?

There are three tags used to separate the texts. i.e. usually <br> tag is used to separate line of texts. Other tags are<p> tag and <blockquote> tag.

16) How to make a picture a background image of a web page?

To make a picture a background image on a web page, you should put the following tag code after the </head> tag.

1.   <body background = "image.gif">

Here, replace the "image.gif" with the name of your image file which you want to display on your web page.

17) What are empty elements?

HTML elements with no content are called empty elements. For example: <br>, <hr> etc.

18) What is the use of span tag? Give one example.

The span tag is used for following things:

o   For adding color on text
o   For adding background on text
o   Highlight any color text etc.

Example:

1.   <p>
2.
3.   In this page we use span.
4.
5.   </p>

19) What is the use of iframe tag?

An iframe is used to display a web page within a web page.

Syntax:

1.   <iframe src="URL"></iframe>

Example:

1.   <iframe src="demo_iframe.html" width="200px" height="200px"></iframe>

Target to a link:

1.   <iframe src="http://www.javatpoint.com" name="iframe_a"></iframe>

20) What is SVG?

HTML SVG is used to describe the two dimensional vector and vector/raster graphics.

21) Can attribute values be set to anything or are there specific values that they accept?

Some attribute values can be set to only predefined values. Other attributes can accept any numerical value that represents the number of pixels for a size.

21) How do you insert a copyright symbol on a browser page?

To insert the copyright symbol, you need to type © or & #169; in an HTML file.

22) How do you create links to sections within the same page?

Links can be created using the <a> tag, with referencing through the use of the number (#) symbol. For example, you can have one line as BACK TO TOP, which would result in the words "BACK TO TOP" appearing on the webpage and links to a bookmark named topmost. You then create a separate tag command like <a name="topmost"> somewhere on the top of the same webpage so that the user will be linked to that spot when he clicked on "BACK TO TOP".

24) Is there any way to keep list elements straight in an HTML file?

By using indents, you can keep the list elements straight. If you indent each subnested list in further than the parent list that contains it, you can at a glance determine the various lists and the elements that it contains.

25) If you see a web address on a magazine, to which web page does it point?

Every web page on the web can have a separate web address. Most of these addresses are relative to the top-most web page. The published web address that appears within magazines typically points this top-most page. From this top level page, you can access all other pages within the website.

26) What is the use of alternative text in image mapping?

When you use image maps, it can easily become confusing and difficult to determine which hotspots correspond to which links. Using alternative text lets, you put a descriptive text on each hotspot link.

27) Do older HTML files work on newer browsers?

Yes, older HTML files are compliant to the HTML standard. Most older files work on the newer browsers, though some features may not work.

28) Does a hyperlink apply to text only?

No, hyperlinks can be used in the text as well as images. That means you can convert an image into a link that will allow users to link to another page when clicked. Surround the image within the … tag combinations.

29) If the user's operating system does not support the needed character, how can the symbol be represented?

In cases wherein their operating system does not support a particular character, it is still possible to display that character by showing it as an image instead.

30) How do you change the number type in the middle of a list?

The <li> tag includes two attributes – type and value. The type attribute can be used to change the numbering type for any list item. The value attribute can change the number index.

PROBLEM 10:

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To create project certificate, Features to be covered:-Formatting Fonts in word, Drop Cap in word, Applying Text effects, Using Character Spacing, Borders and Colors, Inserting Header and Footer, Using Date and Time option in Word and Latex

i) AIM: To create a document applying the above mentioned techniques.

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Word Application)

MS- WORD 2007:
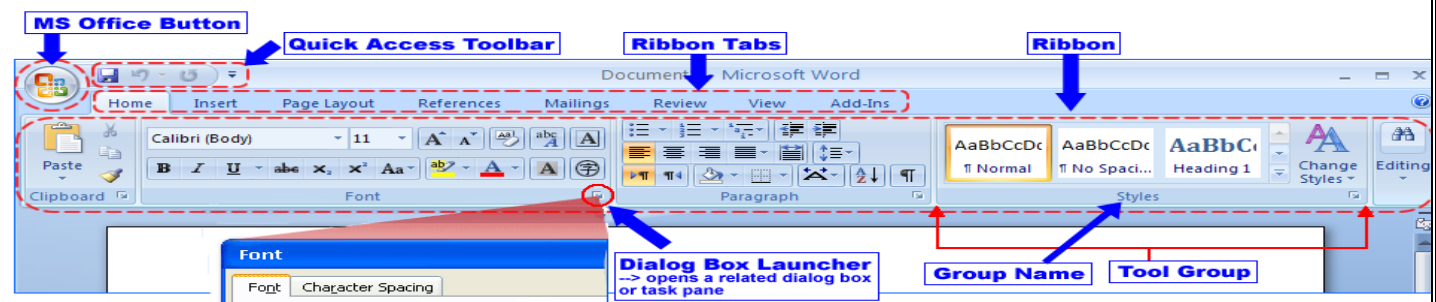
- The **HOME** Tab includes commands related to the Clipboard, font selections, paragraph settings, and styles and editing.
- The **INSERT** tab includes what you need to add pages, tables, illustrations, links, headers and footers, text objects, and symbols in your document.
- The **PAGE LAYOUT** tab contains the commands for working with themes page backgrounds, and paragraph spacing in your document.
- The **REFERENCES** tab includes special elements you will use when you create longer or more complete documents.
- The **MAILINGS** tab is a new addition in the Office Word 2007 interface. Here you can find everything you need to creating, previewing, and producing a mail merge project.

Ribbons or Tool Bars:

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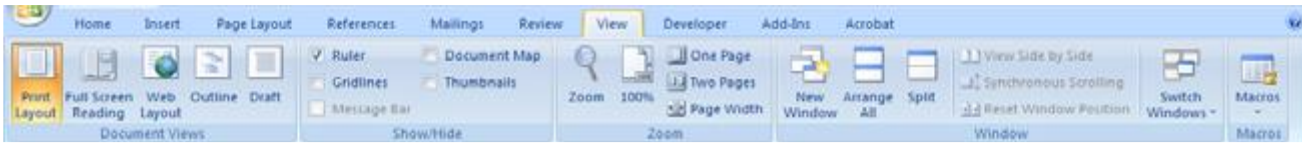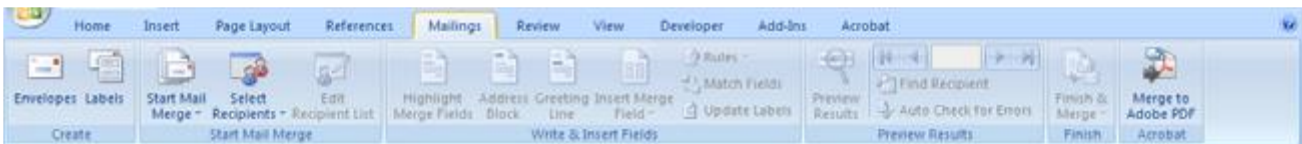
Creating and Saving a File:
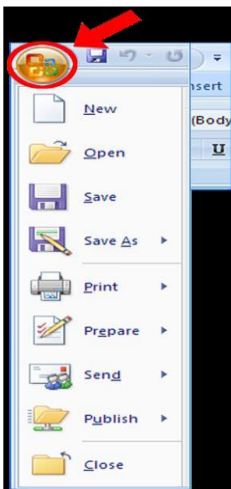
The **Office Button** is the round icon at the top left-hand corner. It includes the basic File Functions from the older version of Office

☐ New, Open, Save, Save As, Print, etc.

Click on the Office Button icon. You will see the main file functions in the pull-down menu.

From these options you can Create a File, you can open existed files, save a file, Save As option to save another copy with another name, print option, close option, etc.

Rulers and Scroll Bars:
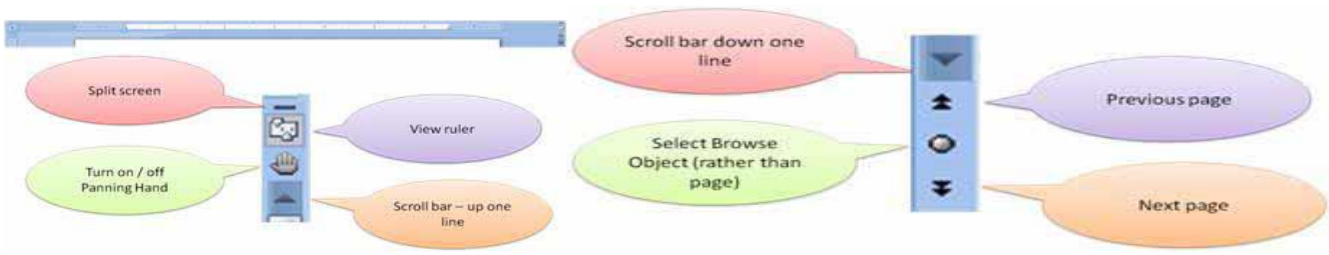
Ruler and Scroll Bar (Top)   **Ruler and Scroll Bar (Bottom)**

Status Bar

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THEORY:

Drop cap: To create a large dropped initial capital letter

Header and Footer:

1. To create a header, enter text or graphics in the header area or click button on the header and footer tool bar.

2. To create footer, click switch between header and footer.

3. Then click exit.
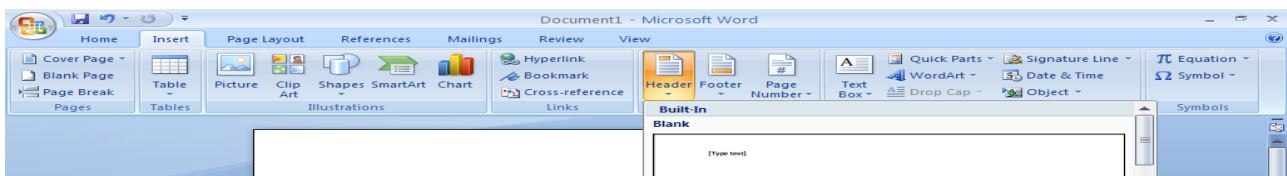
Border:

On the format menu, click borders and shadings.

To specify that the border appears on a particular side of a page, such as only at the top, click custom under setting.

To specify a particular page or section for the borders to appear, click the option you want to apply.

To specify the exact position of the border on the page.

Finally, click OK.
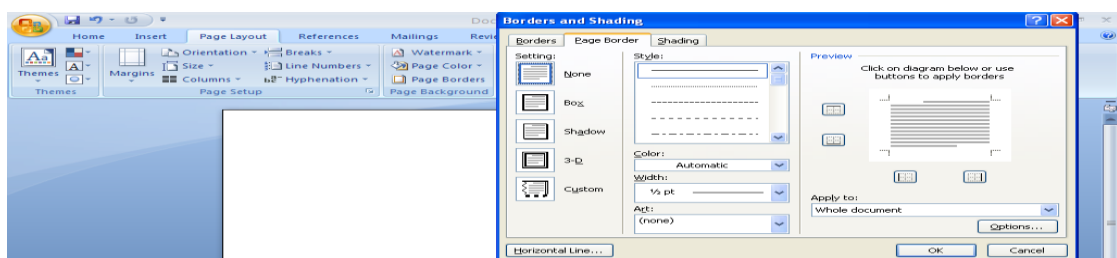
Color:

Select the text you want to make a different color.

To apply the color most recently applied to text, click font color.

To apply different colors, click the arrow on the right of the font color button, select the color you want and then click the button.
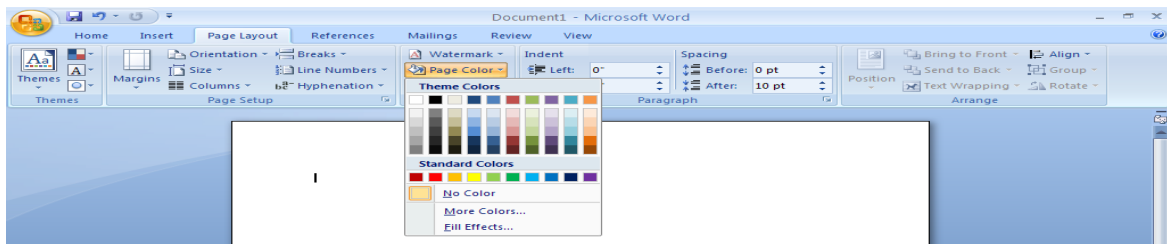
Result: Creation of project Certificate using MS Word completed successfully by applying different options.

<u>**Viva Questions:**</u>

1) What is the function of Menu Bar?

Ans: Menu Bar displays the menu; we use the menus to give the instructions to the software.

2) What is a Status Bar?

Ans: Status Bar provides information as current page, current section, total no of pages, inches from the top of the page, current line number and column number.

3) Point out different types of Scroll Bars?

Ans: Different Scroll Bars are Horizontal Scroll Bar and Vertical Scroll Bar.

4) What is the extension of Microsoft Word file?

Ans: The extension of word 2003 file is **.doc** and for word 2007 **.docx**

5) How can you justify the text in MS- Word?

Ans: To justify the text you can click on Justify option in Styles and Formatting Tool Bar or Press Ctrl+J.

6) How do you create a document in Microsoft Word from scratch?

In the upper-left corner of the Word program window, click the File tab, and then click New. The New Document dialog box opens. With Blank document selected, click Create.

7) How do you save a document in Microsoft Word?

To save a document for the first time, you can press Ctrl+S, click the Save button on the Quick Access toolbar, or click Save on the File tab. All three options display a dialog box in which you specify a name for the document.

8) How do you track changes to documents?

You can use Word's Track Changes feature to record the changes made to a document. Click the Track Changes button in the Tracking group on the Review tab. Word highlights the button, indicating that the Track Changes feature is turned on.

9) How do you format text, change font, and font size?

To format text, in the Font group on the Home tab, click the Bold, Italic or Underline button. To change the font and font size click on the toolbar. Click the Font arrow to display a list of available fonts. Then click the Font Size arrow to select the size.

10) What will the following key combination do: Ctrl+P?

Ctrl+P will print the document.

11) How do you check spellings and grammar of a MS Word document?

Place the cursor at the beginning of the document or at the beginning of the section that you want to check. Click the Review tab on the tool bar. Click Spelling & Grammar on the Proofing group.

12) How do you create a spreadsheet in Microsoft Excel from scratch?

When you start Excel without specifying a document to open you get a blank workbook in a new workbook window. This workbook, temporarily named Book1, contains three blank worksheets (Sheet1, Sheet2, and Sheet3). To begin to work on a new spreadsheet, you simply start entering information in the first sheet of the Book1 workbook window.

13) How do you save a spreadsheet in Microsoft Excel?

Click the Save button on the Quick Access toolbar or press Ctrl+S; then designate the drive and folder directory where the file should be located.

14) How do you print a spreadsheet in Microsoft Excel?

First, use the Print Preview feature before you print any worksheet to see exactly how the worksheet data will be paged when printed. You then can click the print icon in the toolbar.

15) How do you format cells in a spreadsheet?

First, you highlight the entire block of cells you wish to format. You then can either right click the block of cells to format or select one of the formatting buttons on the toolbar. Microsoft PowerPoint

16) How do you create a new presentation?

You would click the Office button to open the File menu and choose New to display the New Presentation window. Double-click Blank Presentation to open a new presentation based on the blank template.

17) How do you view your presentation in full screen mode?

Click the Slide Show view button to display the slide show starting with the currently selected slide.

18) How do you save a PowerPoint presentation?

Click the Office button and choose Save from the File menu to display the Save As dialog box. Type a name for the document and then click save.

19) How do you build a slide in a blank presentation?

Click the New Slide button to insert a new title and content slide. To change the layout click the arrow on the New Slide button and click another option from the drop-down box to insert a slide with a different layout.

20) How do you apply a transition to a slide?

Select the slide you wish to modify. Click on the Transitions tab. Locate the preferred transition type to apply. Click on the transition to apply it to the selected slide.

Procedure:

1. Insert Date from "**Date and Time**" Option.

2. Form Field – **Text Form Field**

    a. To display the **Forms** toolbar, point to **Toolbars** on the **View** menu, and then click **Forms**.

    b. In the document, click where you want to insert the form field. c. Click **Text Form Field.**

3. Form Field – **Drop-Down Form Field**

    a. In the document, click where you want to insert the form field. b. Click **Drop-Down Form Field.**

    c. If needed, a user can scroll through the list to view additional choices.

    d. To edit these fields, you must use the **Form Field Options** button on the

    Forms toolbar.

4. Form Field – **Check Box Form Field**

    a. In the document, click where you want to insert the form field. b. Click Check Box Form Field.

    c. To edit these fields, you must use the **Form Field Options** button on the

    Forms toolbar.

5. Mail Merge

    a. On the **Tools** menu, point to **Letters and Mailings**, and then click **Mail**

    Merge.

    b. Word displays the **Mail Merge** task pane.

c. Select type as "**Letters**" and click "**Next: Starting Document".**

d. Click **Use the current document**, and Click "**Next: Select recipients**". e. Under **Select recipients**, click **Use an existing list**.

f. Click **Browse.**

g. In the **Select Data Source** dialog box, locate and click the data source you want.

h. Browse for the given **"List.txt"** file., and Click **Open.**

i. All of the entries in the data source appear in the **Mail Merge**

Recipients dialog box, where you can refine the list of recipients to include in the merge.

j. Click **Next: Write your letter**.

k. Click on the location where you want to put a merge field. Click on more items.

l. Select and Insert the merge field at that location.

m. Click **Next: Preview your letters**.

n. To preview the items in order, click the arrow buttons.

o. To exclude a particular recipient from the merge, click **Exclude this recipient**.

p. Click **Next: Complete the merge**.

q. You can either **print** all the letters or **Edit individual letters**

   i. Click **Edit individual letters**.

   ii. To merge all the documents, click **All**.

      iii. Save it to a separate document for future use.

MICROSOFT EXCEL

Microsoft Excel is one of the most widely used Spreadsheet applications for performing financial, statistical and computational analysis for the purpose of business and administration.

The tool is so flexible enough to get integrated with other applications for providing the best output. For instance, it can be integrated to web servers and the students marks, percentile etc. calculated can be generated onto the web. Similarly it can be integrated with the other Office Applications for providing Charts, Statistics etc. It can also be used as a backend database for any applications involving high-end calculation of the data that is stored.

MICROSOFT POWER POINT

PowerPoint is a high-powered software tool used for presenting information in a dynamic slide show format. Text, charts, graphs, sound effects and video are just some of the elements PowerPoint can incorporate into your presentations with ease. Whether it's a classroom lesson, a parents' group meeting, a teachers' seminar - PowerPoint shows you how to make a powerful impression on your audience

Task 20: Create the presentation using the following tools:

1. Formatting: Color, font type, font size, font style etc.
2. Header and Footer
3. Bullets and Numbering
4. Drawing Toolbar: Auto shapes, Textboxes, etc
5. Design Template
6. Introduction to custom animation.

Task 21: Create a presentation to conduct a creativity session using the following tools:

1. Slide transition
2. Master slide view
3. Insert picture – clipart, image
4. Action button
5. Drawing tool bar – lines, arrows
6. Hyperlink
7. Custom animation
8. Hide slide
9. Wash out

Task 22: Business Presentation

Create a presentation to build relationships, think creatively and market your product using the following tools:

1. Slide Layout
2. fill color
3. Inserting object, picture (effects), graph, word art

4.   comments

5.   Security – password

6.   Tables and Borders

7.   Rehearse timings

8.   Recording Narrations

9.   Audio and video files

10.   Inserting files, merging files, creating custom shows

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Task 23:

Create a website for your college. The website should have the following pages

1. Homepage which describes the college website

2. About Us page which tells about the college vision, when it was established...etc

3. Departments page which describes the departments in the college

4. Separate pages for the departments of your college

5. Contact page which contains address and contact information about the college

Guidelines for the website are given below:

Homepage

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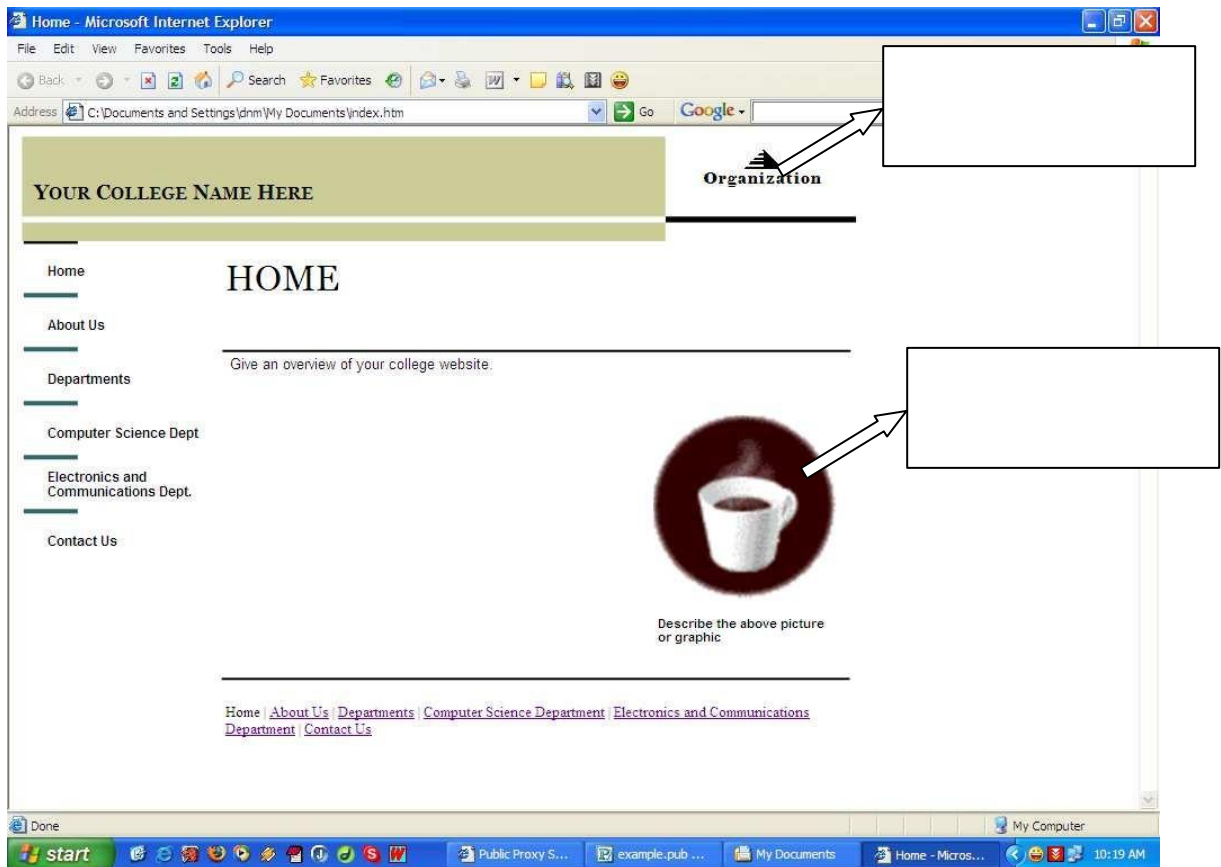
Task 23: Repeat the tasks 12-15 using LaTex.

PROBLEM 11:

Formatting Styles, Inserting table, Bullets and Numbering, Changing Text Direction, Cell alignment, Footnote, Hyperlink, Symbols, Spell Check and Track Changes.

AIM: To create a project document applying the above mentioned techniques.

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Word Application)

THEORY:

Table:

A table consists of rows and columns.
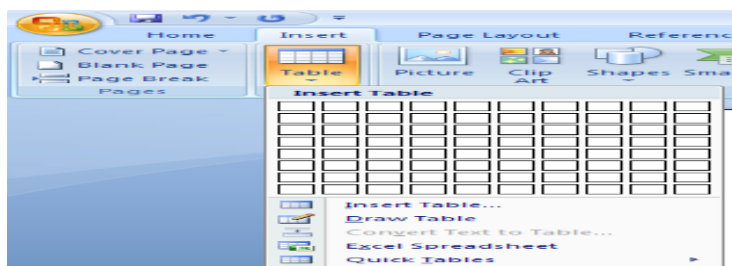
Cell Alignment:

Aligns a contents written in a table in the top left corner or top right corner or in the center etc..
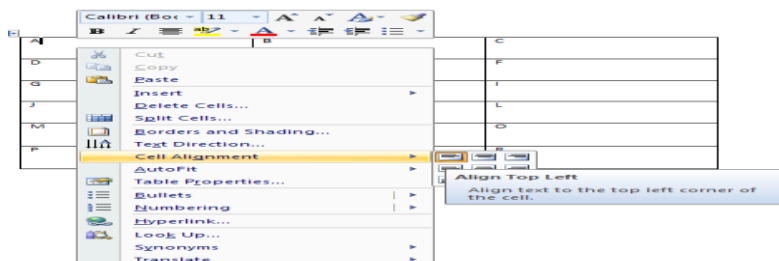
Foot Note:

oot notes are used to comments on, or provide references for text in a document.
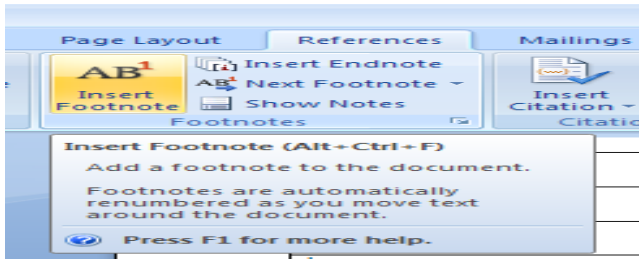
Hyperlink: It is a colored and underlined text or a graphic that you click to go to a file, a location in a file, an HTML page on the World Wide Web, or an HTML page in an intranet.
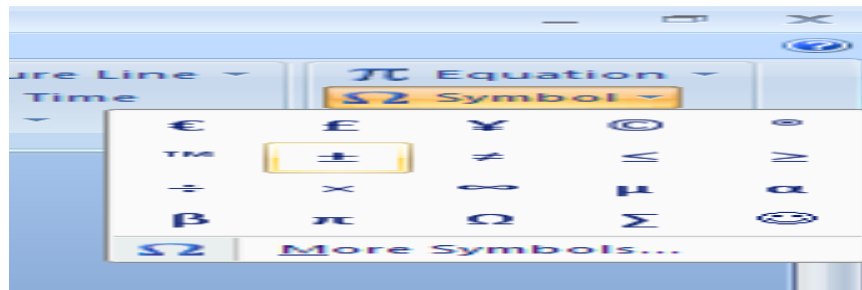
Symbols: You may not be able to enter certain symbols into your word document, as there si a limitation on the keys on the key board. Creating these new symbols especially when working with mathematical terms it becomes very difficult .For example we can insert symbols such as $\equiv, \approx, \Downarrow$, ..

Spell check: It automatically checks for spelling and grammatical errors
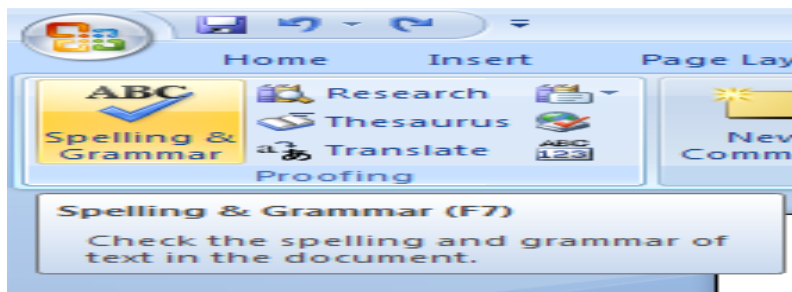
Bullets   and   Numbering: In Microsoft word we can easily create bulleted or numbered list of items.
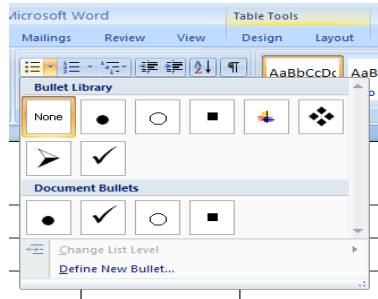
Formatting Styles:

A style is a set of rules to be followed for the effective document. Style can be applied to text, paragraph, table or a list.
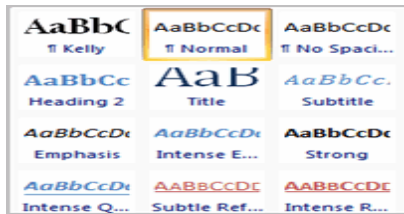
Procedure:

Table:

1. Click where you want to create a table.
2. On the Insert menu, Click on Table.
3. Under Table size, select the number of columns and rows.
4. Under AutoFit behavior, choose options to adjust table size.
5. To use a built-in table format, click AutoFormat.

   Select the options you want

Cell Alignment:

1. Click the cell that contains text you want to align.
2. On the Tables and Borders toolbar, select the option for the horizontal and vertical alignment you want— for example, Align Bottom Center or Align Top Right.

Foot Note:

1. In References Menu, click where you want to insert the note reference mark and then click Footnote.
2. Click Footnotes or Endnotes.
3. In the Number format box, click the format you want.
4. Click Insert.

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Word inserts the note number and places the insertion point next to the note number.

5. Type the note text.
6. Scroll to your place in the document and continue typing.

As you insert additional footnotes or endnotes in the document, Word automatically applies the correct number format.

Hyper link:

Select the text or picture you want to display as the hyperlink, and then click Insert Hyperlink on the Standard toolbar

Do one of the following:

1. Link to an existing file or web page:

   1. Under Link to, click Existing File or Web Page.
   2. In the Address box, type the address you want to link to or, in the Look in box, click the down arrow, and navigate to and select the file

2. Link to a file you haven't created yet

   Under Link to, click Create New Document.

   3. In the Name of new document box, type the name of the new file.
   4. Under When to edit, click either Edit the new document later or Edit the new document now

An e-mail address:

1. Select the text or picture you want to display as the hyperlink, and then click Insert Hyperlink on the Standard toolbar
2. Under Link to, click E-mail Address.
3. Either type the e-mail address you want in the E-mail address box, or select an e-mail address in the recently used e-mail addresses box.
4. In the Subject box, type the subject of the e-mail message

A specific location in another document

1. Insert a bookmark in the destination file or Web page.
2. Open the file that you want to link from, and select the text or object you want to display as the hyperlink.

3. On the Standard toolbar, click Insert Hyperlink   .
4. Under Link to, click Existing File or Web Page.
5. In the Look in box, click the down arrow, and navigate to and select the file that you want to link to.
6. Click Bookmark, select the bookmark you want, and then click OK.

Symbol:
1. Click where you want to insert the symbol.
2. On the Insert menu, click Symbol, and then click the Symbols tab.
3. In the Font box, click the font that you want.

4. Double-click the symbol that you want to insert.
5. Click Close

Spell check:

1. On the Review Menu, click Spelling and Grammar
2. When Word finds a possible spelling or grammatical problem, make your changes in the Spelling and Grammar dialog box.

Bullets and Numbering:

1. Type 1**.** to start a numbered list or ***** (asterisk) to start a bulleted list, and then press SPACEBAR or TAB.
2. Type any text you want.
3. Press ENTER to add the next list item.
   Word automatically inserts the next number or bullet.

4. To finish the list, press ENTER twice, or press BACKSPACE to delete the last bullet or number in the list

Formatting Styles:

1. Select the words, paragraph, list, or table you want to change.
2. If the Styles and Formatting task pane is not open, click Styles and Formatting on the Formatting toolbar
3. Click the style you want in the Styles and Formatting task pane.

   If the style you want is not listed, click All Styles in the Show box

Track Changes:

1. Open the document you want to revise.
2. On the Tools menu, click Track Changes

Result: Creating a document using MS Word completed successfully by inserting Formatting styles, Bullets and numbering, and tables.

Viva questions:

1) What is the shortcut keys for creating hyperlink?

 Ans: Create a hyperlink Cntrl +K

2)How you can accept or reject track changes in word 2013?

Ans:To accept or reject track changes in word 2013,

- Select the track changes made in the document
- From the review tab, click the **Accept** or **Reject** command, the mark-up will disappear and word will automatically jump to the next change

3)What is the extension of Microsoft Word file?

Ans: The extension of word 2003 file is **.doc** and for word 2007 **.docx**

4)How to insert foot note to your document ?

Ans: Click Insert → Reference →Footnote

5)What is the shortcut key to open a new document

 Ans:CTRL+N

6) What is the function of Menu Bar?

Ans: Menu Bar displays the menu; we use the menus to give the instructions to the software.

7) Point out different types of Scroll Bars?

Ans: Different Scroll Bars are Horizontal Scroll Bar and Vertical Scroll Bar.

8) **What is a Status Bar?**

Ans: Status Bar provides information as current page, current section, total no of pages, inches from the top of the page, current line number and column number.

9) How can you justify the text in MS- Word?

Ans: To justify the text you can click on Justify option in Styles and Formatting Tool Bar or Press Ctrl+J.

10) What is the function of spell check?

Ans: The **spell check function** is used to **spell check** a series of words

11)How can you insert a table?

Ans: Go to insert tab ,click on table option and select required number of rows and columns

12)Define header, footer ?

 Ans: **Headers and footers** are pieces of text that appear at the top and bottom of a page

1**3)Explain about clipart ?**

 Ans: **Clip art** is a picture or graphic that can be inserted into a **word** processed document. **Clip art** comes in a wide variety of formats and styles.

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14)What are the formatting styles in word

 Ans: font style, size, or color, alignment, line spacing, or indentation.

 15) How can we add borders and shading to paragraphs?

Ans: a) Select the area of text where we want the border or shading.

    b) Click the Borders Button on the Paragraph Group on the Home Tab.

    c) Choose Borders and Shading.

16)What is foot note ?

Ans: A footnote is a note that appears at the bottom of a page that is commonly used by writers to cite other authors publication in their document[1]

17)How to change the text direction ?

Ans: select the cells for which you want to **change the text direction** and click the Layout tab under Table Tools. Click **Text Direction** in the Alignment section of the Layout tab

18)How to align the cell ?

 Ans: Select the **cells**, columns, or rows, with text that you want to **align** (or select your entire table). Go to the (Table Tools) Layout tab. Click an **Align** button.

19) How to add bullets and numbers to a document ?

 Ans: Position the cursor where you want to **insert** the **number** list. Either click on the **number** button or **bullet** button

20)What is the short cut key to add foot note ?

 Ans: ALT+CTRL+F

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<div align="center">

PROBLEM 12:

</div>

Create a Newsletter. Features to be covered:-Table of content. Newspaper columns, Images from files and clipart, Drawing toolbar and Word Art, Formatting Images, Textboxes and Paragraphs and Mail Merge in Word.

AIM: To create a news Letter and Mail Merge

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Word Application)

THEORY:

Table of contents:

Table of contents displays a list of headings in a created document. It basically provides an outline of the entire document created

Newspaper columns:

One can create a newspaper columns document by specifying the number of new letter-style column required and then adjust their width, and add vertical lines between columns.

Images from files and clipart:

Inserting a picture (graphic) from a file and clipart may be required for a document. This picture could be a scanned photograph or any other digitally produced one. This picture can be modified, resized, cropped and enhanced.
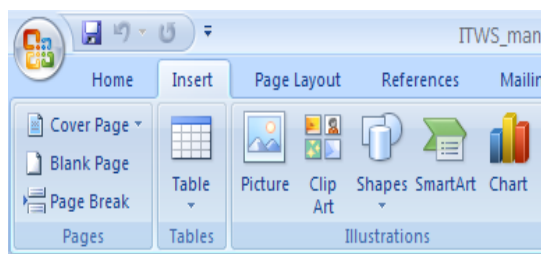
Drawing toolbar and Word Art:

One can create his/her own drawings in Microsoft word. Ms Word provides a full fledged drawing tool bar.

Word Art in Microsoft word enables you to create special and decorative text.

ITWORKSHOP LAB MANUAL
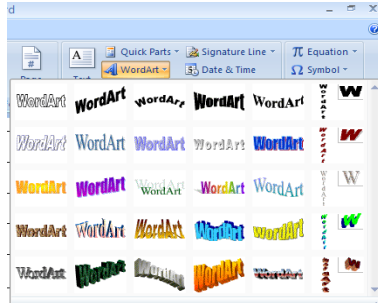
Formatting Images, Textboxes and Paragraphs:

Formatting an image includes selecting appropriate color, size, layout and cropping.

Generally the text in a document follows a standard orientation (line after line). A text box provides a different orientation to the text with in a document. It can arrange the text in anywhere and can be resized and moreover moved to any section of the document or even outside.

When you are formatting a paragraph, you do not need to highlight the entire paragraph. Placing the cursor anywhere in the paragraph enables you to format it. After you set a paragraph format, subsequent paragraphs will have the same format unless you change the format.

Mail Merge:

It helps us to produce from letters mailing labels envelopes catalogs and others types of merged document. It is so found in the tools option on the menu bar. In tools we have letters and mailing. In letters and mailing we have mail merge mail merge tool box envelopes tables and letters wizard. In mail merge select the required document you are working on. A window for customizing the data base structure appears. This file contains the names, address details with contact numbers etc of people you wish to send the letters.
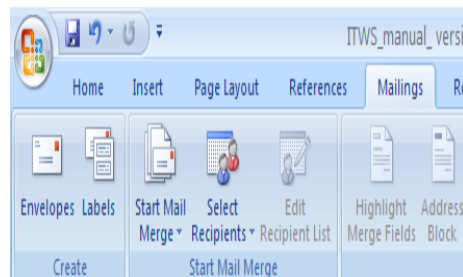
PROCEDURE:

Table of contents:

1. Click where you want to insert the table of contents.
2. On the **Insert** menu, point to **Reference**, and click **Index and Tables**.
3. Click the **Table of Contents** tab.
4. To use one of the available designs, click a design in the **Formats** box.
5. Select any other table of contents options you want.

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Newspaper columns:

1. Select the entire or part of document to be converted into a newsletter-style

2. Click on format menu, select columns

3. Any desired number of columns are presets-one or two or three or left or right b\can be selected.

4. Width and spacing can be fixed and equal columns width can be checked for uniformity

5. If newspaper columns are to be separated by a line, then check line between

6. Under apply to will be whole document if entire document is selected else we have to select a selected text.

7. Click ok

Inserting images from files and clip art:

1. Click where you want to insert the picture.
2. On the Insert menu, point to Picture, and then click From File.
3. Locate the picture you want to insert.
4. Double-click the picture you want to insert.

CLIP ART:

1. On the Insert menu, point to Picture, and then click Clip Art.
2. In the Clip Art task pane, in the Search for box, type a word or phrase that describes the clip you want or type in all or some of the file name of the clip.
3. To narrow your search, do one or both of the following:
    - To limit search results to a specific collection of clips, in the Search in box, click the arrow and select the collections you want to search.
    - To limit search results to a specific type of media file, in the Results should be box, click the arrow and select the check box next to the types of clips you want to find.
4. Click Go.

    5. If you don't know the exact file name, you can substitute wildcard characters for one or more real characters. Use the asterisk (*) as a substitute for zero or more characters in a file name. Use the question mark (?) as a substitute for a single character in a file name.

    6. In the Results box, click the clip to insert it.

Drawing Toolbar and Word Art:

1. Click in your document where you want to create the drawing.
2. On the Insert menu, point to Picture, and then click New Drawing.

    A drawing canvas is inserted into your document.

3. Use the Drawing toolbar to add any shapes or pictures that you want.

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WORD ART:

1. On the Drawing toolbar, click Insert WordArt   .

2. Click the WordArt effect you want, and then click OK.

3. In the Edit WordArt Text dialog box, type the text you want.

4. Do any of the following:

- To change the font type, in the Font list, select a font.
- To change the font size, in the Size list, select a size.
- To make text bold, click the **Bold** button.
- To make text italic, click the Italic button.

Formatting Images:

1. Formatting of the images can be achieved by selecting the image and double click on the picture, format picture dialog box appears.

2. The same can be achieved by selecting the tools menu > customize>tool bars tab>picture and click close.

Basic formatting features of an image

Resize a drawing

1. Select the drawing canvas
2. On the Drawing Canvas toolbar, do one of the following:
    - To make the drawing canvas boundary larger without changing the size of the objects on the

      canvas, click Expand   .
    - To make the drawing canvas boundary fit tightly around the drawing objects or pictures, click Fit

      .
    - To scale the drawing and make the objects and canvas proportionately smaller or larger, click Scale Drawing, and then drag the edges of the canvas.

Resize a picture or shape

1. Position the mouse pointer over one of the sizing handles
2. Drag the sizing handle until the object is the shape and size you want.

   To increase or decrease the size in one or more directions, drag the mouse away from or toward the center, while doing one of the following:

    - To keep the center of an object in the same place, hold down CTRL while dragging the mouse.
    - To maintain the object's proportions, drag one of the corner sizing handles.

- To maintain the proportions while keeping the center in the same place, hold down CTRL while dragging one of the corner sizing handles.

Crop a picture

1. Select the picture you want to crop.

2. On the Picture toolbar, click Crop   .
3. Position the cropping tool over a cropping handle and then do one of the following:
   - To crop one side, drag the center handle on that side inward.
   - To crop equally on two sides at once, hold down CTRL as you drag the center handle on either side inward.
   - To crop equally on all four sides at once, hold down CTRL as you drag a corner handle inward.
4. On the Picture toolbar, click Crop to turn off the Crop command.

Text Box:

1. On the Drawing toolbar, click Text Box   .
2. Click or drag in your document where you want to insert the text box
3. You can use the options on the Drawing toolbar to enhance a text box— for example, to change the fill color— just as you can with any other drawing object

Paragraphs:

Change line spacing
Select the text you want to change.
1. On the Formatting toolbar, point to Line Spacing, and then do one of the following:
   - To apply a new setting, click the arrow, and then select the number that you want.
   - To apply the most recently used setting, click the button.
   - To set more precise measurements, click the arrow, click More, and then select the options you want under Line Spacing.

Change spacing before or after paragraphs

1. Select the paragraphs in which you want to change spacing.
2. On the Format menu, click Paragraph, and then click the Indents and Spacing tab.
3. Under Spacing, enter the spacing you want in the Before or After box.

Change paragraph direction

1. Place the insertion point in the paragraph that you want to change, or select several paragraphs.
2. Do one of the following:
   - To have text begin from the left, click Left-to-Right on the Formatting toolbar.
   - To have text begin from the right, click Right-to-Left on the Formatting toolbar.

When you change the paragraph direction, Microsoft Word leaves justified and centered text as it is. In the case of left-aligned or right-aligned text, Word flips the alignment to its opposite. For example, if you have a left-to-right paragraph that is right aligned, such as the date at the top of a letter, clicking Right-to-Left results in a right-to-left paragraph that is left aligned.

Mail Merge:

1. Open a document and type the complete body of the letter and format it as required.
2. Create a data source and choose mail merge from tool bar a window is displayed.
3. Click on create button and choose from letter options. Then a window is displayed.
4. Click active window choose currently active document. Click on data and create data source option.
5. A window for customizing the data base structure appears and this file contains the names address details with contact number etc. we can add or remove fields from this file.
6. Once the list of fields is finalized a window of same is displayed and types the required file names and click on save button.
7. A window is displayed. Type the details of 10 candidates. After typing details of one person, click on add menu.
8. Click on the o.k. to finish entering the records mail merge tool bar is displayed.
9. Place the curser at the place where you wish to insert names and click on insert mail merge button. A drop list is displayed all fields created would be shown.
10. By highlighting to desired file and click on it we can insert the field into the main document and go to begin the mail merge click on mail merge.
11. A window is displayed click once on the merge button to generate letters for all records in your data source file.

Result: Creating a Mail Merge using MS Word is completed

Viva questions:

1. Define undo, redo
Ans: Redo is a function performed on a computer that does any **undo** function again. For example, if you deleted text and perform an **undo**

2. What is the end notes?
Ans: footnotes and endnotes in documents to explain, **comment** on, or provide references to something mentioned in a document. Usually, footnotes appear at the bottom of the page and endnotes come at the **end** of the document or section.

3. How can you print a document?
Ans: preview your document and specify which pages you want to print. On the **File** menu, click **Print**.

4. How can you make alignment of text in a table?
Ans: Select one or more cells in the table, and then click the Table Layout tab.

 Under Alignment, click Align, and then select the option that you want.

5. How can you insert a picture from another file?

Ans: 1.Click where you want to insert a picture in your document.

2 On the Insert tab, in the Illustrations group, click Picture.

3.In the Insert Picture box, browse to the location of the picture on your computer, select the

picture, and then click Insert.

6. How can you start a mail merge?

Ans: 1. In Word, choose File > New > Blank document.

2. On the Mailings tab, in the Start Mail merge group, choose Start Mail Merge, and then

choose the kind of merge you want to run.

7)What is the shortcut key to Redo ?

Ans:CTRL+Y

8) How can you customize a mail merge?

Ans: In a blank Microsoft Word document, click on the Mailings tab, and in the Start

Mail Merge group, click Start Mail Merge .

9).What is a mail merge?

Ans: Mail Merge is an important functionality in **Word** 2013, one that has improved across versions of **Word** but remains **a** difficult thing to do. **Word** provides **a** Mailings Tab which contains numerous groups and commands useful in **Mail Merge**, such as the Create, Write and Insert Fields, and Preview Results groups.

10)What is the main purpose of a drop cap?

Ans: Drop Cap is used to create a large dropped initial capital letter. Select Format-> Drop

Cap.

11)What is the purpose of Bullets?

Ans: Bullets are used to create Bulleted or numbered list of items.

12)How can you print a document?

Ans: Go to File-> Print or press Ctrl+P.

13)What is the functionality of Print Layout?

Ans: In Print layout View we can see the rulers, status bar of the document and displays the fixed page length of your document.

14)What is the use of Clip art ?

Ans:We can insert any kind of pictures to our document.

15)What is the use of Word art in ms word ?

Ans: Word Art in Microsoft word enables you to create special and decorative text. Click

in your document where you want to create the drawing.

16)What is the functionality of F7 key

Ans:It opens the Spelling and Grammar dialogue box

17)How can we format the images ?

Ans: Formatting of the images can be achieved by selecting the image and double

click on the picture, format picture dialog box appears.

18)How to give the space between the paragraphs ?

 Ans:

 On the Format menu, click Paragraph, and then click the Indents and Spacing tab.

 Under Spacing, enter the spacing you want in the before or after box

19)What is the shortcut key to select the entire document

Ans: CTRL+A

20) How to insert a Text box in ms word ?

Ans: 1.On the Insert tab, in the Text group, click Text Box, and then click Draw Text Box.
 2.Click in the document, and then drag to draw the text box the size that you want.

PROBLEM 13:

Creating a Scheduler:-Features to be covered: - Gridlines, Format Cells, Summation, auto fill, Formatting Text

AIM: To maintain a shift schedule with specifications

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Excel Application)

THEORY:

Microsoft Excel is a proprietary commercial spreadsheet application written and distributed by Microsoft for Microsoft Windows. It features calculation, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications.
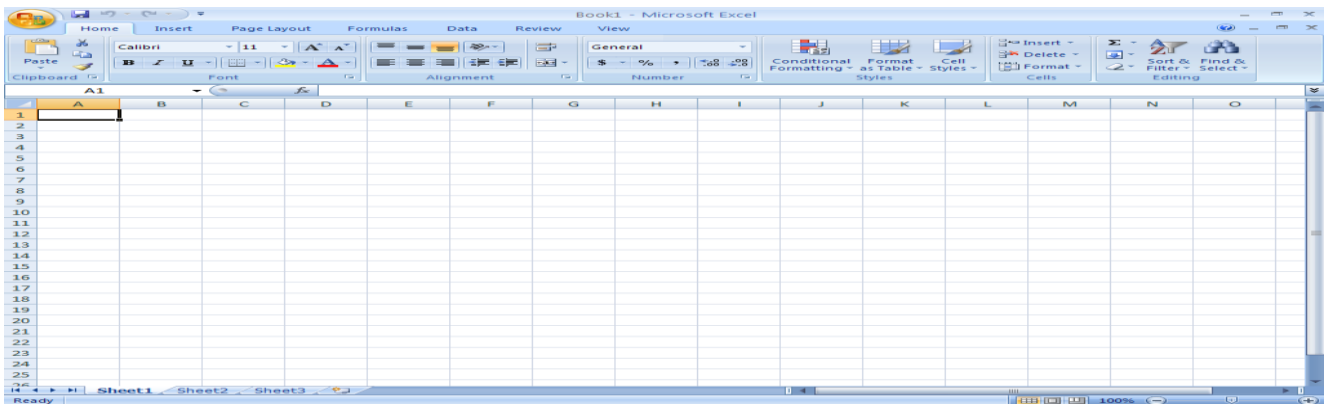
Tool Bars:

Grid lines:

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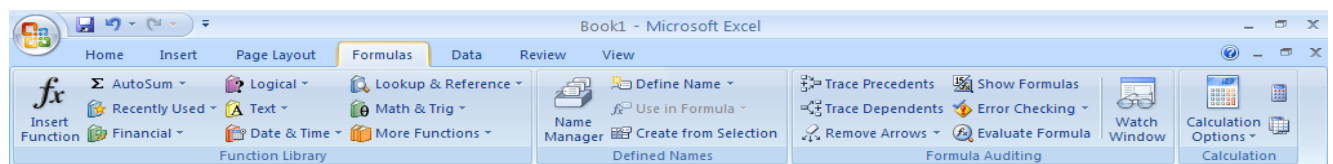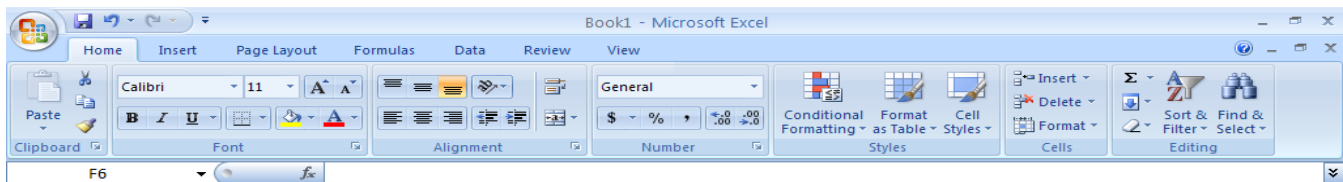
1. Click the worksheet.
2. On the file menu, click page Layout and the go to sheet options.
3. Click gridlines.
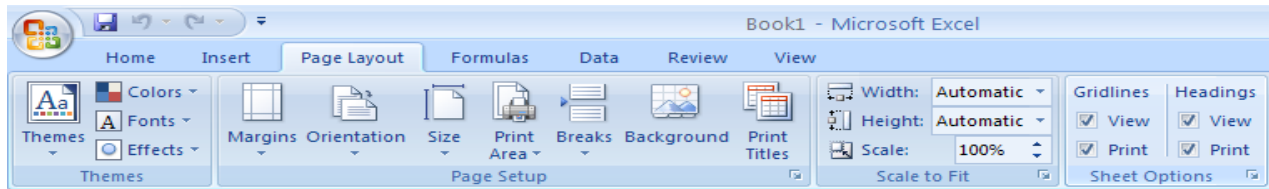
Format Cell:

1. Change the font and font size.
2. Change the text color.
3. Make selected text or numbers bold, italic or underlined.
4. Create a new style.
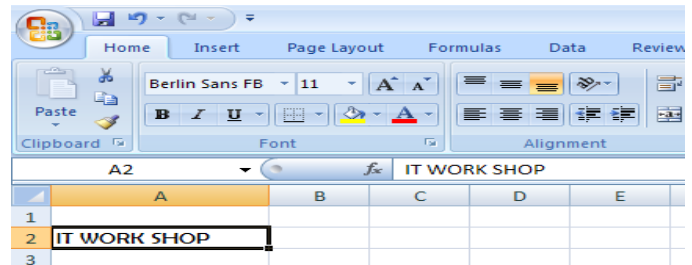
Auto fit:

1. Combine cells horizontally or vertically to make one large cell.
2. Add borders to cells.
3. Shade cells with colors.
4. Change the column width and row height
5. Change the font, font size or colors of text.
6. Align text vertically at the top, center and bottom of cell.

Formatting the text:

1. Select the text you want to format.
2. On the format menu click cells and then click number tab.
3. In the catalog box click text.
4. Enter the numbers in the formatted cells.
5. Click ok.
6. Then press enter and reenter the data.

PROCEDURE:

First click start button of the screen on status bar. Click on programs and then Microsoft excel. To get a new blank work sheet go to programs and then click on excel sheet. On the file menu click page setup and then click sheet tab click gridlines. In this way do the required changes using format cell, make the required changes using formatting text also

make the required changes. Enter the data in the data in the worksheet consisting of week name person name and timings 7 a.m. to 3 p.m. Make all the above changes to the text.

Result: Creating a MS- Excel sheet is completed by inserting grid lines, formatting text options.

<u>**Viva Questions:**</u>

1) What do you mean by a spread sheet?

Ans: It allows organizing information in rows and columns.

2) What is the Auto Fill?

Ans: It allows to quickly filling cells with repetitive or sequential data such as date or numbers or text.

3) What is a grid line?

Ans: Grid lines are the border lines of the cells within a spread sheet.

4) What do you mean by a spread sheet?

Ans: It allows organizing information in rows and columns.

5) What is the Auto Fill?

Ans: It allows to quickly filling cells with repetitive or sequential data such as date or numbers or text.

6) What is a grid line?

Ans: Grid lines are the border lines of the cells within a spread sheet.

7)How to save a file in excel?

Ans: Click the Microsoft Office Button , and then click Save As.

8)What is formatting tool bar?

Ans: he Formatting toolbar provides many of the most common options for formatting selected text, such as font, font size, font weight, alignment, and color.

9)What is status bar in excel?

Ans: The status bar at the bottom of Microsoft Office programs displays status on options that are selected to appear on the status bar.

10)What are the contents of a spread sheet?

Ans: preadsheets are developed as computerized simulations of paper accounting <u>worksheets</u>. Each cell may contain either numeric or text data, or the results of <u>formulas</u> that automatically calculate and display a value based on the contents of other cells

11)Describe different types of toolbars available in ms-excel

Ans:There are two types of tool bars.1.Standard tool bar 2.Formatting tool bar

12)How can you calculate simple formulas in excel?

Ans: By using Fx function (or) by using Auto sum (or)we can write the formula for addition like this =SUM(A1:A4) or =SUM(A1,A2,A3,A4).

13)What is name manager in Excel ?

Ans: It define a *name* for a cell or cell range on a worksheet

PROBLEM 14:

Calculating GPA-Features to be covered-Cell Referencing, Formulae in excel – average, std. deviation, Charts, Renaming and Inserting worksheets, Hyper linking, Count Function, HLOOKUP/VLOOKUP, sorting, & Conditional formatting

i). **AIM :** To maintain a control chart for printing books with given data.

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Excel Application)

THEORY:

Formulae in Excel:

Go to Formulae Menu and click on Insert Function
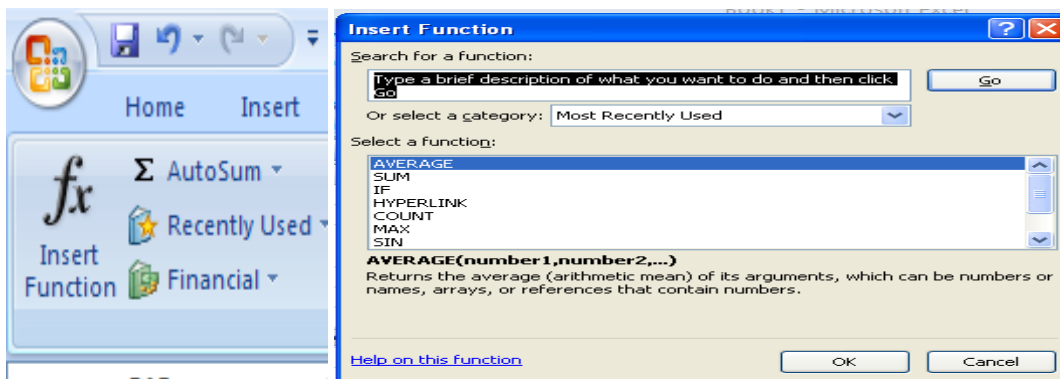
Hyper Linking:

1. Create a worksheet: On the file menu, click new, and then click blank workbook task pane.

2. Insert a worksheet: C lick worksheet on the insert menu. Right click on sheet tab and then click insert double click the template for the type of sheet you want.

3. Hyperlink: Using hyperlink we can insert one more sheet in the present sheet

4. Count function: Create a blank worksheet press control +c. In the worksheet select cell A and press control +c. On the tools menu point to formula auditing and then click formula auditing menu.

Worksheet:

1. In the file menu go to menu then a new worksheet is created.

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2 To add a single worksheet, click worksheet on the Insert menu. To add multiple worksheets hold down shift and then click the number of worksheet tasks to add in a open workbook

Sort:

1. Click a cell in the list you want to sort.
2. On the Data menu click sort.
3. Under first key sort click the custom sort order you want and then click ok.
4. Click any other sorting option you want.
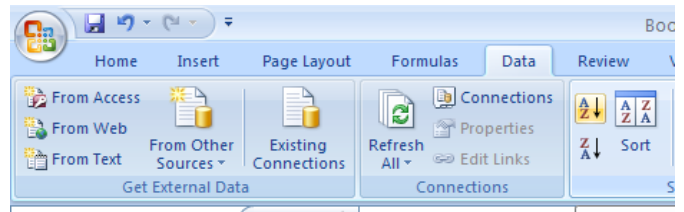
PROCEDURE:

Formulae in Excel:

Mean = (s1 + s2 + s3 + s4 + s5)/5;

Sample mean = avg (mean)

Standard deviation = (mean, sample, mean)

Sample standard deviation= avg (Standard deviation)

Lower count limit = sample mean – sample standard deviation.

Upper count limit = Sample mean + Sample Standard deviation

Conditional Formatting:

1. Select the cells for which you want to add, change, or remove conditional formatting
2. On the **Home** menu, click **Conditional Formatting**.
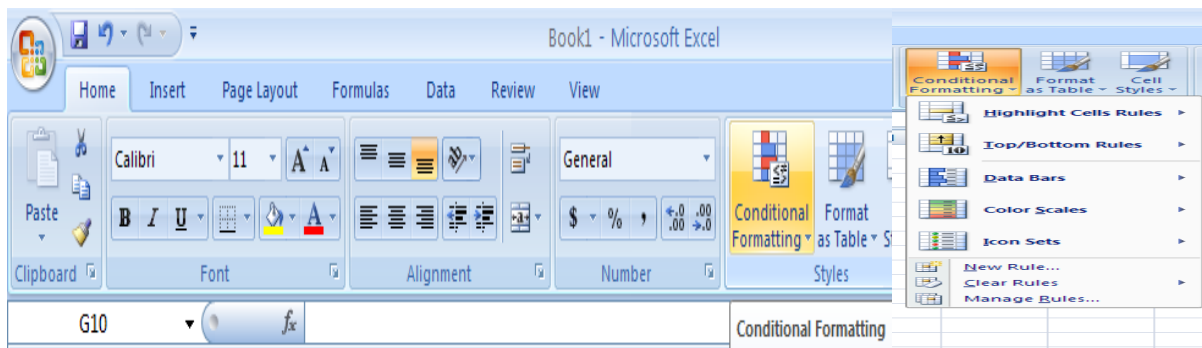
Result: Creating a MS- Excel Sheet is completed by calculating various formulas for the database.

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1) What is the function of a count?

Ans: blank entries are not counted, text entries are not counted.

2) What is a Sort?

Ans: Sorting is to sort the data in ascending and descending order.

3) What is an average function?

Ans: The average function finds the average of the specified data.

4) What is the syntax of average function?

Ans: Average (First value, second value, etc);

5) What is a count function?

Ans: It will return the number of entries in the selected range of cells.

6)What is an average function?

Ans: The Excel AVERAGE function returns the arithmetic mean of a list of supplied numbers.

7)Explain about chart ?

Ans: A **chart** is a powerful tool that allows you to visually display data in a variety of different **chart** formats such as Bar, Column, Pie, Line, Area, Doughnut, Scatter, Surface, or Radar **charts**.

8)How can you open chart wizard?

Ans: 1.Select the cells that contain the data that you want to display in your chart.

2.Select the Insert Tab.

3.Select the Chart type you want to create.

9)Explain about chart formatting tool bar ?

Ans: The formatting toolbar found in most applications with text editing features is used to change the format of selected text.

10)How can you resize a chart?

Ans: 1.To change the size manually, click the chart, and then drag the sizing handles to the size that you want.

2.To use specific height and width measurements, on the Format tab, in the Size group, enter the size in the Shape Height and Shape Width box.

11.List a few important features of excel

Ans: 1.Pivot Tables 2. Conditional Formatting 3. Sorting and Filtering 4. Basic Math   5. Mixed Type Charts

12.Define split cell

Ans: The **Split Cells** feature allows you to **split cells** into two or more **cells**.

13.How can you split a window into a horizontal pane?

 Ans: Click the short **horizontal** bar at the top of the right scroll bar and drag the **horizontal** separator to your desired location. Doing so splits the **window horizontally**.

14.How can you make a freezing pane?

Ans: 1.Select the row below the row(s) you want to freeze. Click the View tab on the Ribbon.

2.Select the Freeze Panes command, then choose Freeze Panes from the drop-down menu. ...

3.The rows will be frozen in place, as indicated by the gray line.

15.How to perform grouping and ungrouping?

Ans: 1.Select any one of the pictures or objects that were previously in a group.

2.Under Picture Tools, on the Format tab, in the Arrange group, click Group , and then click Regroup.

16).How many types of charts are there in excel ?

Ans: 1) The Pie Chart 2) The Column Char 3) The Line Chart 4)The Bar Chart
5)The Area Chart 6)The Scatter Chart and Other Chart Types

17)What is define name ?

Ans: Create **Excel names**that refer to cells, a range of cells, a constant value, or a formula.

18)What is trace precedence in excel ?

Ans: Shows arrows that indicate what cells affect the value of the currently selected cells.

19)What is error checking ?

Ans:Check for common errors that occur in formulas

20)What is Data Validtion in excel ?

Ans:Prevent invalid data from being entered into a cell

<div align="center">**PROBLEM 15**</div>

PPT Orientation, Slide Layouts, Inserting Text, Word Art, Formatting Text, Bullets and Numbering, Auto Shapes, Lines and Arrows in PowerPoint.

TITLE:

   Create a power point presentation consists of slide layouts inserting text, formatting text, bullets and numbering of five slides with following information's.

   Slide 1 – contents

   Slide 2 – Name

   Slide 3 – Address

   Slide 4 – Hobbies

   Slide 5 – Friends

AIM: To maintain a PowerPoint presentation with some specifications

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Power Point Application)

THEORY:

CREATE A NEW PRESENTATION:

MS Office Button >> **New** -- New Presentation window opens up

- The **MS Office Button** is located in the top left corner of the Word 2007 Window

To start a new file from scratch:

- Choose "**Blank Document**" and press "**Create**".

There are templates available on the left panel for creating a presentation of a specific type (ie. photo album or calendar).

ADD A NEW SLIDE:

Home Tab >> Slides >> **New Slide**

- Click on **New Slide** button. It adds a new slide in the default layout "Title and Content."
- Click on the **arrow** at the bottom corner of the **New Slide** button. You can select the slide layout from the Default Design pallet.
- Click **Layout** button. You can select and change the slide layout.

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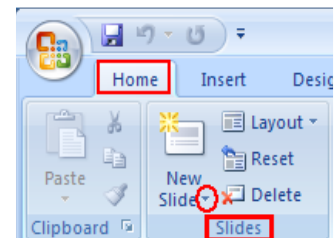
- Click **Delete** button to delete the current slides.

FORMATTING SLIDE DESIGN:

1. Change the Background:

   **Design Tabs** >> **Background** >> **Background Styles**

   - Click on the **Format Background** button at the bottom.
   - Format Background window appears.
   - You can set the color, solid or gradient, transparency or choose picture/texture fill
   - Click on **Close** button to apply changes only to the current slide
   - Click on **Apply to All** to apply changes to all the slide

2. Change the Theme:

   Design Tabs >> **Themes**

   - Move the cursor over the theme buttons to preview different themes on your current slide.
   - Click on any theme button to choose the theme, which will be applied to all the slides in your presentation.
   - **Colors** -- Changes the color scheme of the current theme
   - **Fonts** -- Changes the font of the current theme
   - **Effects** -- Changes the effects of the current theme
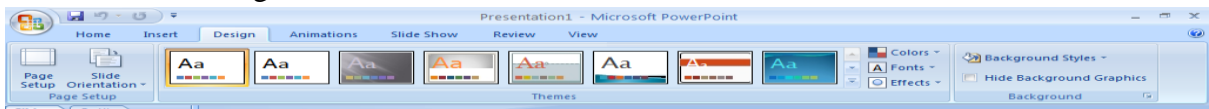
INSERT TEXT:
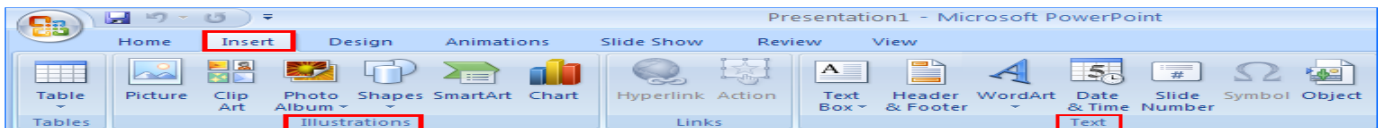
Home Tab >> **Drawing** >> **Text Box**
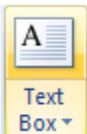
In PowerPoint all text is contained in **Text Boxes**.

☐ Click on **Text Box** button >> Click anywhere in the slide.

☐ Drag **circle corner points** or **square side points** of the text box to change its size.

☐ Click within the box to type text

FORMATTING TEXT:

Select the text box. The **Drawing Tools Tab** appears.

☐ Click on the **Format** tab. Format the selected text box in **Shape Styles:**

o Shape Fill -- Changes the fill color

o Shape Outline -- Changes the color, width, line style of outline
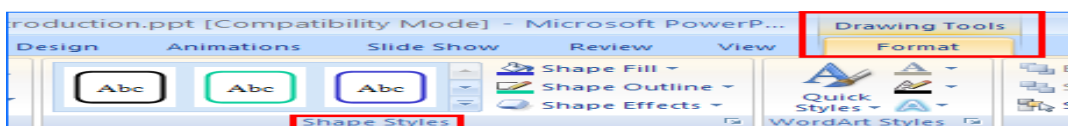
o Shape Effects -- Applies visual effects (shadow, bevel, etc.) to the text box

BULLETS AND NUMBERINGS:

1. Select the lines of text that you want to add bullets or numbering to.
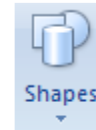2. Click bullets or numbering.

ADD SHAPES:

Insert Tab >> **Illustration >> Shapes**

☐ Click on the Shape button to see the list of available shapes.

☐ Select the shape.

☐ Click on anywhere in the slide to insert the selected shape.

SLIDE TRANSITIION:

Slide transitions are animation effects that appear between slides. While they look fancy, these transitions can be distracting if overused. It is often good to keep this kind of animation to a minimum.

Animation Tabs >> **Animations** >> **Transition to This Slide**

Move the cursor over the transition buttons to preview the effects.

- Click on the Transition effect button to apply the slide transition effect.
- Click on **Transition Sound** button to apply sound effect for transition.
- Click on **Transition Speed** button to adjust the speed.
- Click on **Apply to All** to apply the same transition effect to all the slides.

Result: Creating MS Power Point presentation by applying animations, transitions, and backgrounds is completed.

Viva Questions:

1) **Explain about power point?**

Ans: Microsoft PowerPoint allows users to combine text, graphics and multimedia into a slide show. While you can use the program to create Web pages, teach shapes to kindergartners or help middle school students explore music, its main use is as a presentation tool. PowerPoint's slide show replaces technology such a chalkboard or an overhead projector to aid someone giving a presentation or leading a discussion.

2) **What is word art?**

Ans: Word Art is a powerful tool that draws text in all sorts of formats. Sometimes I like to change existing text straight into Word Art, which is easy if you know how.

3) **Explain about slide transition?**

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Ans: Slide transitions are the visual movements as one slide changes to another. Many different slide transitions are available in programs such as PowerPoint or Open Office Impress. Transitions differ from animations, in that animations are the movements of the *objects* on the slide.

4) How can you rotate the picture in power point?

Ans: Double click on the picture and you then ribbon will automatically switch to "Format",

below it, in the "Arrange" section; you will find the "Rotate" button!

ii) AIM:

Hyperlinks, Inserting –Images, Clip Art, Audio, Video, Objects, Tables and Charts

TITLE:

Create a power point presentation consisting of hyperlinks, inserting images, clip art, audio, video objects of 4 slides with the following information.

Slide 1:- Name of your college in bold letters.

Slide 2:- Address of your college in bold letters.

Slide 3:- List of all available courses.

Slide 4:- Extra co-curricular activities.

And apply the transaction effects and set the time three seconds for each slide and view it in slide show.

**AIM:** To maintain a PowerPoint presentation using some specifications

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Power Point Application)

THEORY:

HYPERLINK:

1. Select the text or object that you want to represent the hyperlink.
2. Under insert menu click on Hyperlink.
3. Under link to, click place in this document.

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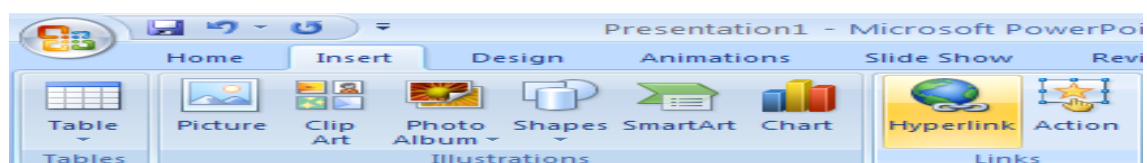
INSERT IMAGES:

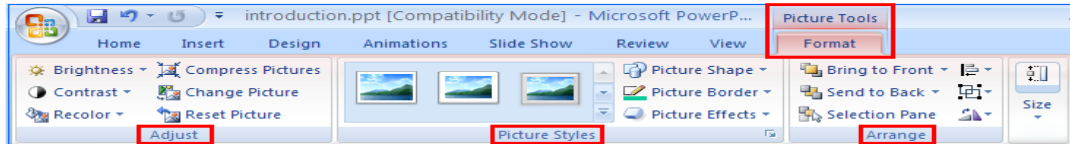1) Adding Images from File

   Insert Tab >> **Illustrations** >> **Picture**

   - Find the picture file you want to insert in the browser window.

2) Adding images from Clip Art

   Insert Tab >> **Illustrations** >> **Clip Art**

   - Search for ClipArt and other media in the right-hand search panel.

   - Check in "**Everywhere**" box under "**Search in**" for more extensive results

CLIP ART:

On the insert menu, point to structure and then click clipart.

1. In the clipart task pane, in the search for box, type a word or phrase that describes the clip, you want to type in all or some of the file menus of the clip.

2. In the results box, click the clip to insert it.

AUDIO VIDEO OBJECTS:

1. On the insert menu, go to Media Clips option and select Movie for Video Objects and Sound for Audio Objects.

2. You can select a movie from a file and you can record sound or select a sound or audio from a file.
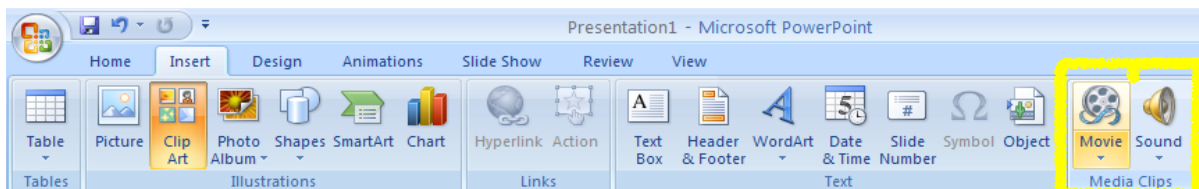

TABLE:

1. On the Insert menu, click Table.

2. Select the size of the Table or you can draw the Table.

CHART:

1. Click the slide where you want to place the embedded object.

2. On the insert menu, click chart.

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3. Click a cell on the data sheet and then type the information you want.

To return to the slide, click outside the chart.

Result: Creating MS Power Point presentation by applying hyperlinks, images is completed.

<u>**Viva Questions:**</u>

1) Define hyper link?

Ans: Hyperlinks are created with an "href" tag (**h**yperlink **ref**erence). In it's simplest form the tag looks like this:

Ex::**<a href="page1.html">Go To Page 1</a**

2) Define slide show?

Ans: Slide shows have come a long way since those shown on the slide projectors of old. Many digital presentations, such as those created in PowerPoint or Open Office Impress are composed of several slides.

The slide show can be enhanced using transitions and animations. Music, sounds or narration can be added to these slide shows and they can run unattended by using custom timings. The slide show is most often projected on a screen using a digital projector.

3) Define slide transition?

Ans: A slide transition is the visual motion when one slide changes to the next during a presentation. By default, one slide simply replaces the previous one on screen, much the same way that a slide show of photographs would change from one to the next.

4) What is animation?

Ans: Animations in Microsoft PowerPoint refer to the way that items, such as text boxes, bullet points or images move onto a slide during a slide show. There are two types of animations available in PowerPoint - Preset Animation Schemes, that affect all of the content on a slide, and *Custom Animations*, that allow you to apply a variety of animation effects to individual items on a slide.

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<u>**TASK 19:**</u>

Master Layouts (slide, template, and notes), Types of views (basic, presentation, slide slotted, notes etc), Inserting – Background, textures, Design Templates, Hidden slides.

<u>**TITLE:**</u>

      Create a power Point presentation on business by using master layouts and see the presentation in different views.
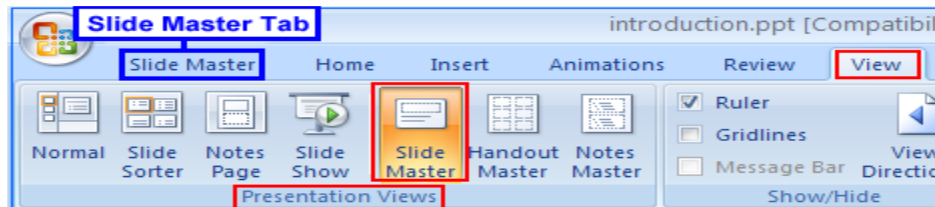
<u>**AIM:**</u> To maintain a power point presentation with some specifications

Hardware Requirements: Personal Computer

Software Requirements: Operating System, MS Office Package (MS- Power Point Application)

<u>**THEORY:-**</u>

SLIDE MASTER LAYOUTS:-

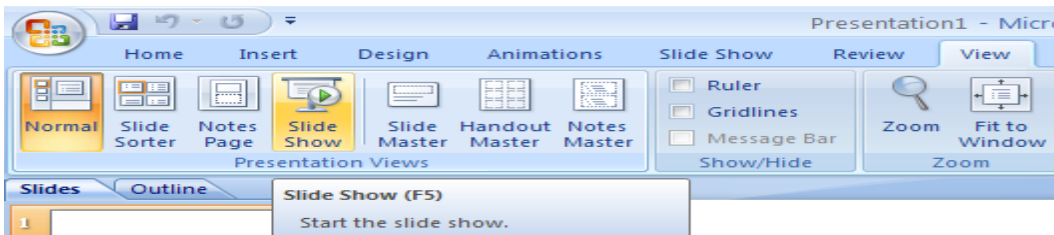**View Tab** >> **Presentation Views** >> **Slide Master**

- **Slide Master Tab** appears on the left-hand side of Home Tab

Edit the Slide Master:

Click on **Slide Master Tab** provides a set of Slide Master formatting groups**:**

- Edit Master

- **Master Layout**

- Edit Theme

- Background

- Page Setup

- **Close** -- Click on **Close** button to go back to **Normal View**.

SLIDE SHOW:

1. On the slides tab in the normal view, select the slides you want to set the things for.
2. On the Animations menu, click side transition.
3. Under advance slide, select the automatically after checkbox, and then number of seconds you want the slide to appear on the screen.
4. And then click on Slide Show option from view menu or press F5 Key from keyboard.

PROCEDURE:

First click on start button. Then click programs, and then power point presentation. Then select file menu and click on new. Then you get a new blank presentation. Then in the first slide, enter the title as business and give product name as sub title. Then insert the second slide. Then enter the title as about the product and give description as sub title. Then insert the third slide and enter the title as sales about product and enter something about it sales. In this way, complete the three slides. Then click on view and then master and then enter date in the space provided for footer. Then you find these two in all slides and then again go to view and click on slide show.

Result: Creating Master Layouts using MS Power Point is completed.

Viva Questions:

1) Explain about power point?
Ans: Microsoft PowerPoint allows users to combine text, graphics and multimedia into a slide show. While you can use the program to create Web pages, teach shapes to kindergartners or help middle school students explore music, its main use is as a presentation tool. PowerPoint's slide show replaces technology such a chalkboard or an overhead projector to aid someone giving a presentation or leading a discussion.

2) What is word art?
Ans: Word Art is a powerful tool that draws text in all sorts of formats. Sometimes I like to change existing text straight into Word Art, which is easy if you know how.

3) Explain about slide transition?
Ans: Slide transitions are the visual movements as one slide changes to another. Many different slide transitions are available in programs such as PowerPoint or Open Office Impress. Transitions differ from animations, in that animations are the movements of the *objects* on the slide.

4) How can you rotate the picture in power point?

Ans: Double click on the picture and you then ribbon will automatically switch to "Format", below it, in the "Arrange" section; you will find the "Rotate" button.

5)Define hyper link?

Ans: Hyperlinks are created with an "href" tag (**h**yperlink **ref**erence). In it's simplest form the tag looks like this:

Ex::**<a href="page1.html">Go To Page 1</a**

6)How to set time automatically for the slide show ?

Ans: There is option Automatically after on animations tab.Set the time and click on

automatically after**.**

7)Define slide show?

Ans: Slide shows have come a long way since those shown on the slide projectors of old. Many digital presentations, such as those created in PowerPoint or Open Office Impress are composed of several slides.

The slide show can be enhanced using transitions and animations. Music, sounds or narration can be added to these slide shows and they can run unattended by using custom timings. The slide show is most often projected on a screen using a digital projector.

8)How to apply transition sound to the Presentation ?
Ans: On Animations tab there is Transition sound option, select any one of the sound.

9)Define slide transition?

Ans: A slide transition is the visual motion when one slide changes to the next during a presentation. By default, one slide simply replaces the previous one on screen, much the same way that a slide show of photographs would change from one to the next.

10)What is animation?

Ans: Animations in Microsoft PowerPoint refer to the way that items, such as text boxes, bullet points or images move onto a slide during a slide show. There are two types of animations available in PowerPoint - Preset Animation Schemes, that affect all of the content on a slide, and *Custom Animations*, that allow you to apply a variety of animation effects to individual items on a slide.

REFERENCES:

1. Introduction to Information Technology, ITL Education Solutions limited, Pearson Education.
2. LaTeX Companion – Lesile Lamport, PHI/ Pearson.
3. Introduction to Computers, Peter Norton, 6/e Mc Graw Hill.
4. Upgrading and Repairing, PC's 18th e, Scott Muller QUE, Pearson Education.
5. Comdex Information Technology course tool kit Vikas Gupta, WILEY Dreamtech.
6. IT Essentials PC Hardware and Software Companion Guide Third Edition by David Anfinson and Ken Quamme. – CISCO Press, Pearson Education.
7. PC Hardware and A+Handbook – Kate J. Chase PHI (Microsoft).

WEB SITES:

www.google.co.in

http://en.wikipedia.org/wiki/Main_Page

http://www.gcflearnfree.org/office2007

http://www.w3schools.com

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