COMPUTER APPLICATIONS

1. INTRODUCTION TO COMPUTERS

SECTION – A

Choose the correct answer:

1. First generation computers used
   (a)Vacuum tubes (b) Transistors (c) Integrated circuits (d) Microprocessors
2. Name the volatile memory
   (a) ROM (b) PROM **(c) RAM** (d) EPROM
3. Identify the output device
   (a) Keyboard (b) Memory **(c) Monitor** (d) Mouse
4. Identify the input device
   (a) Printer **(b) Mouse** (c) Plotter (d) Projector
5. …… Output device is used for printing building plan, flex board, etc.
   (a) Thermal printer **(b) Plotter** (c) Dot matrix (d) inkjet printer
6. In ATM machines, which one of the following is used to
   (a) Touch Screen (b) speaker (c) Monitor (d) Printer
7. When a system restarts …….. which type of booting is used.
   (a) Warm booting (b) Cold booting (c) Touch boot (d) Real boot.
8. Expand POST
   (a) Post on self Test (b) Power on Software Test
   (c)Power on Self Test (d) Power on Self Text
9. Which one of the following is the main memory?
   (a) ROM **(b) RAM** (c) Flash drive (d) Hard disk
10. Which generation of computer used IC?s?
    (a) First (b) Second **(c) Third** (d) Fourth
11. In which year the concept of the analytical engin was invented?
    (a)1837 (b)1910 (c)1991 (d)1836
12. Which of the following period the first generation computer begons?
    (a)1957-1961 **(b)1940-1956** (c)1964-1971 (d)1980-1990
13. Which of the following is not a first generation computer?
    (a)ENIAC (b) EDVAC (c)UNIVAC1 **(d)IBM1401**
14. Robotics develop in _____ generation.
    (a)Third (b) Fourth (c)Fifth **(d)Sixth**
15. Expansion of GUI?
    (a)Graphics User Interface (b)Graphical User Information
    (c)Geographical User Innformation **(d)Graphical User Interface**
16. Pictures on a monitor are formed with pictures elements called_____.
    (a)Resolution (b)Software **(c)Pixels** (d)High Definition
17. The first computer moniter was released in the year?
    (a)1980 (b) 1983 (c)1963 **(d)1973**
18. The Expension of VLSI is?
    (a)Verified Logical Scale Integrated Circuits (b) Very Logical Small Integraed Circuits
    (c)Voltitle Large scale integrated Circuits (d) Very large scale integrated Circutes
19. Fill in the following. **Input → _____ →Output**
    (a)Data (b) Information **(c) Process** (d) Computer
20. The set of programs or instructions are called_____.
    (a)Software (b) Hardware (c)Information (d)Data

SECTION-B

SHORT ANSWERS

1.What is a computer?

A computer is an electronic device that processes the input according to the set of instructions provided to it and gives the desired output at a very fast rate.

2.Distinguish between data and information.

Data	Information
Data is defined as an unprocessedcollection of raw facts, suitable for communication interpretation or processing.	Information is a collection of facts from which conclusions may be drawn.
Example: 134, 16 “Kavitha”, “C” are data.	**Example:** Kavitha is 16 years old.

3. What are the components of a CPU?

The CPU has three components which are Control unit, Arithmetic and logic unit (ALU) and Memory unit.

4. What is the function of an ALU?

The ALU is a part of the CPU where various computing functions are performed on data. The ALU performs arithmetic operations such as addition, subtraction, multiplication, division and logical operations.

5. Write the functions of control unit.

The control unit controls the flow of data between the CPU, memory and I/O devices. It also controls the entire operation of a computer.

6. What is the function of memory?

* The Memory Unit is of two types which are primary memory and secondary memory.
* The primary memory is used to temporarily store the programs and data
* The secondary memory is used to store the data permanently.

7. Differentiate Input and output unit.

Input Unit	Output Unit
An Input unit is used to feed any form of data to the computer, which can be stored in the memory unit for further processing. **Example:** Keyboard, mouse	An Output Unit is any hardware component that conveys information to users in an understandable form. **Example:**Monitor, Printer

8. Distinguish Primary and Secondary memory.

Primary Memory	Secondary memory
The Primary Memory is volatile, that is, the content is lost when the power supply is switched off. The primary memory is used to temporarily store the programs and data **Example:** Random Access Memory (RAM).	The Secondary memory is non-volatile, that is, the content is available even after the power supply is switched off. The secondary memory is used to store the data permanently **Example:** Hard disk, DVD ROM.

SECTION-C

Explain in Brief

1. What are the characteristics of a computer?

Computers have revolutionized our lives with their speed, accuracy, storage, reliability, versatility and diligence performing a job, it is truly remarkable.

2. Write the applications of computer.

Computers are seen everywhere around us, in all spheres of life, in the field of education, research, travel and tourism, weather forecasting, social networking, e-commerce, Robotics , Nanotechnology, Bioengineeringetc.

3. What is an input device? Give two examples.

An input device is a hardware or peripheral device used to send data to a computer. An input device allows users to communicate and feed instructions and data to computers for processing, display, storage and/or transmission.

Example: Keyboard, mouse, Scanner, Track Ball, Light Pen.

4. Name any three output devices.

An output device is any peripheral that receives data from a computer

Monitor:

Monitor is the most commonly used output device to display the information. It looks like a TV.

Plotter:

Plotter is an output device that is used to produce graphical output on papers.

Printers:

Printers are used to print the information on papers.

Speakers:

Using speaker along with speech synthesize software, the computer can provide voice output.

Multimedia Projectors:

Multimedia projectors are used to produce computer output on a big screen

5. Differentiate optical and Laser mouse

Optical mouse	Laser mouse
→Measures the motion and acceleration of pointer. →It uses light source instead of ball to judge the motion of the pointer. →Optical mouse is less sensitive towards surface.	→Measures the motion and acceleration of pointer. →Laser Mouse uses Laser Light →Laser Mouse is highly sensitive and able to work on any hard surface

6.Write shortnote on impact printer

*An impact printer is a type of printer that works by direct contact of hammers or pins on ribbon.

*These printers can print on multi-part (using carbon papers) by using mechanical pressure.

For example, Dot Matrix printers and Line matrix printers are impact printers.

Dot Matrix printer : A Dot matrix printer that prints using a fixed number of pins or wires. Each dot is produced by a tiny metal rod, also called a "wire" or "pin".

Line matrix printers : Line matrix printers use a fixed print head for printing. Basically, it prints a page-wide line of dots. But it builds up a line of text by printing lines of dots.

7. Write the characteristics of sixth generation.

*Sixth Generation, computers could be defined as the era of intelligent computers, based on Artificial Neural Networks.

*The most dramatic changes in the sixth generation will be the explosive growth of Wide Area Networking.

*Natural Language Processing (NLP) is a component of Artificial Intelligence (AI).

*It provides the ability to develop the computer program to understand human language.

8. Write the significant features of monitor.

*Monitor is the most commonly used output device to display the information. It looks like a TV.Pictures on a monitor are formed with picture elements called PIXELS.

*There are many types of monitors available such as CRT (Cathode Ray Tube), LCD (Liquid Crystal Display) and LED (Light Emitting Diodes).

*Monochrome which display text or images in Black and White or can be color, which display results in multiple colors.

*The monitor works with the VGA (Video Graphics Array) card. The video graphics card helps the keyboard to communicate with the screen.

SECTION - D

Explain in detail

1. Explain the basic components of a computer with a neat diagram.

* The computer is the combination of hardware and software. Hardware is the physical component of a computer like motherboard, memory devices, monitor, keyboard etc.

* Software is the set of programs or instructions. Both hardware and software together make the computer system to function.Every task given to a computer follows an Input- Process- Output Cycle (IPO cycle). It needs certain input, processes that input and produces the desired output. Components of a computer

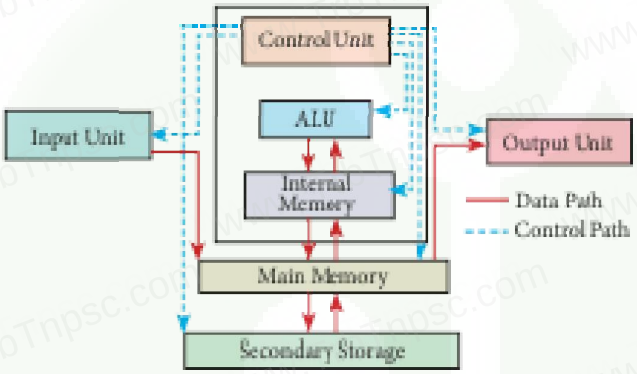


Figure 1.3 components of a computer

Input Unit

Input unit is used to feed any form of data to the computer, which can be stored in the memory unit for further processing. Example: Keyboard, mouse, etc.

Central Processing Unit

CPU is the major component which interprets and executes software instructions. It also controls the operation of all other components such as memory, input and output units. The CPU has three components which are Control unit, Arithmetic and logic unit (ALU) and Memory unit.

Arithmetic and Logic Unit

The various computing functions are performed on data. The ALU performs arithmetic operations such as addition, subtraction, multiplication, division and logical operations.The logical operations of ALU promote the decision-making ability of a computer.

Control Unit

The control unit controls the flow of data between the CPU, memory and I/O devices. It also controls the entire operation of a computer.

Output Unit

An Output Unit is any hardware component that conveys information to users in an understandable form. Example: Monitor, Printer etc.

Memory Unit

* The Memory Unit is of two types which are primary memory and secondary memory. The primary memory is used to temporarily store the programs and data. The Primary Memory is volatile, that is, the content is lost when the powersupply is switched off. The Random Access Memory (RAM) is an example ofa main memory.

* The secondary memory is used to store the data permanently. The Secondary memory is non- volatile, that is, the content is available even after the power supply is switched off. Hard disk, CD- ROM and DVD ROM are examples of secondary memory.

2. Explain the following

a.Inkjet Printer

* Inkjet Printers use colour cartridges which combined Magenta, Yellow and Cyan inks to create color tones.

* A black cartridge is also used for monochrome output. Inkjet printers work by spraying ionised ink at a sheet of paper.

* The speed of Inkjet printers generally range from 1-20 PPM (Page Per Minute).

* An Inkjet printer can spread millions of dots of ink at the paper every single second.

* A tiny electric currents controlled by electronic circuits are used inside the printer to spread ink in jet speed.

b.Multimedia projector

* Multimedia projectors are used to produce computer output on a big screen. These are used to display presentations in meeting halls or in classrooms.

c.Bar code

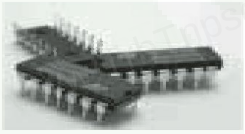
* A Bar code is a pattern printed in lines of different thickness. The Bar code readerscans the information on the bar codes transmits to the Computer for further processing.

* The system gives fast and error free entry of information into the computer.

d.QR code Reader

The QR code is the two dimension bar code which can be read by a camera and processed to interpret the image.

3. Discuss the various generations of computers.

SN	Generation	Period	Main Component used	Merits/Demerits
1	**First Generation**	1942-1955	 **Vacuum tubes**	• Big in size • Consumed more power • Malfunction due to overheat • Machine Language was used
First Generation Computers - ENIAC , EDVAC , UNIVAC 1 ENIAC weighed about 27 tons, size 8 feet × 100 feet × 3 feet and consumed around 150 watts of power				
2	**Second Generation**	1955-1964	 **Transistors**	• Smaller compared to First Generation • Generated Less Heat • Consumed less power compared to first generation • Punched cards were used • First operating system was developed - Batch Processing and Multiprogramming Operating System • Machine language as well as Assembly language was used.
Second Generation Computers **IBM 1401, IBM 1620, UNIVAC 1108**				
3	**Third Generation**	1964 -1975	 **Integrated Circuits (IC)**	• Computers were smaller, faster and more reliable • Consumed less power • High Level Languages were used
Third Generation Computers **IBM 360 series, Honeywell 6000 series**				
4	**Fourth Generation**	1975-1980	 **Microprocessor** Very Large Scale Integrated Circuits (VLSI)	• Smaller and Faster • Microcomputer series such as IBM and APPLE were developed • Portable Computers were introduced.
5	**Fifth Generation**	1980 - till date	 **Ultra Large Scale Integration (ULSI)**	• Parallel Processing • Super conductors • Computers size was drastically reduced. • Can recognize Images and Graphics • Introduction of Artificial Intelligence and Expert Systems • Able to solve high complex problems including decision making and logical reasoning
6	**Sixth Generation**	In future		• Parallel and Distributed computing • Computers have become smarter, faster and smaller • Development of robotics • Natural Language Processing • Development of Voice Recognition Software

COMPUTER APPLICATIONS
2. NUMBER SYSTEMS
SECTION – A

Choose the correct answer:

1. Which refers to the number of bits processed by a computer's CPU?

A.Byte B) Nibble C) **Word length** D) Bit

2. How many bytes does 1 Kilobyte contain?

A.1000 B) 8 C) 4 D) **1024**

3. Expansion for ASCII

A.American School Code for Information Interchange

B.**American Standard Code for Information Interchange**

C.All Standard Code for Information Interchange

D.American Society Code for Information Interchange

4. 2^50 is referred as

A.Kilo B) Tera C) **Peta** D) Zetta

5. How many characters can be handled in Binary Coded Decimal System?

A.64 B) 255 C) 256 D) 128

6. For 11012 what is the Hexadecimal equivalent?

A.F B) E C) **D** D) B

7. What is the 1's complement of 00100110?

A. 00100110 B) **11011001** C) 11010001 D) 00101001

8. Which amongst this is not an Octal number?

A. 645 B) 234 C) **876** D) 123

9.The Singular form of data is ----------?

A. Records B) File C) **Datum** D) Values

10.Expansion of BIT------.

A. Basic Digits B) Binary Digit C) Binary Information D) Base Digit

11.The Singular form of data is ----------?

A. Records B) File C) **Datum** D) Values

12.4 bits = ----------.

A. Bit B) Byte C) Datum **D) Nibble**

13.Which is Used to measure the number of bits in each word?

A.Word length B) length C) Size D) nonr of these

14.How many standard number system are there to use?

A.2 B)3 C) **4** D) 5

15.The radix of Hexadecimal is----------?

A. 2 B) 4 C) 8 **D) 16**

16.What are the two symbols Used in Binary number system?

A. 0,1 B) +, - C) 2,4 D) $2^0, 2^1$

17.Expension of MSB is----------.

A. Most Sign Bit **B) Most Significant Bit** C)Medium Signal Bit D) Most Sing Byte

18.The 4 bit Binary equivalent of -5 is ----------.

A. 1101 B) 0101 C) 1100 D) -101

19.The 2's Complement of 1100_2 is----------.

A. 1101_2 **B) 0100_2** C) 1100_2 D) 10_2

20.Expansion of EBCDIC------.

A. Extented Byte Coded Decimal Interchange Code

B) Extented Binary Coded Decimal Interchange Code

C) Extented Binary Coded Decimal Information Code

D) Extented Basic Coded Decimal Interchange Code

21. Match the following:

(i) 0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F - 1. Binary

(ii)0,1 - 2. Hexadecimal

(iii) 0,1,2,3,4,5,6,7,8,9 - 3. Octal

(iv) 0,1,2,3,4,5,6,7 - 4. Decimal

a. 2,1,4,3 b. 2,1,3,4 c. 3,4,1,2 d. 4,3,1,2

SECTION-B

Short Answers

1. What is data?

The term data comes from the word **datum**, which means a raw fact. The data is a fact about people, places or some objects.

2. Write the 1's complement procedure.

Step 1: Convert given Decimal number into Binary

Step 2: Check if the binary number contains 8 bits , if less add 0 at the left most bit, to make it as 8 bits.

Step 3: Invert all bits (i.e. Change 1 as 0 and 0 as 1)

3. Convert $(46)_{10}$ into Binary number

2	46	
2	23	- 0 LSB
2	11	- 1
2	5	- 1
2	2	- 1
MSB	1	- 0

$(46)10 = (101110)\ 2$

4. We cannot find 1's complement for $(28)_{10}$. State reason.

Reason : We cannot find 1's complement for $(28)_{10}$. Because it is a positive number. 1's complement apply only with negative number.

5. List the encoding systems for characters in memory.

There are several encoding systems used for computer.

BCD – Binary Coded Decimal

EBCDIC – Extended Binary Coded Decimal Interchange Code

ASCII – American Standard Code for Information InterchangeUnicode

ISCII – Indian Standard Code for Information Interchange

SECTION-C

Explain in Brief

1. What is radix of a number system? Give example

* Each number system is uniquely identified by its base value or radix.
* Radix or base is the count of number of digits in each number system.
* Radix or base is the general idea behind positional numbering system.
* Radix or base is the general idea behind positional numbering system.

Example:

Binary Number System	-	Radix 2	$(1010)_2$
Octal Number System	-	Radix 8	$(457)_8$
Decimal Number System	-	Radix 10	$(312)_{10}$
Hexadecimal Number System	-	Radix 16	$(25F)_{16}$

2. Write note on binary number system.

* There are only two digits in the Binary system, namely, 0 and 1.

* The numbers in the binary system are represented to the base 2 and the positional multipliers are the powers of 2.

* The left most bit in the binary number is called as the Most Significant Bit (MSB)and it has the largest positional weight.

* The right most bit is the Least Significant Bit (LSB) and has the smallest positional weight.

3. Convert $(150)_{10}$ into Binary, then convert that Binary number to Octal

2	150	**Binary Number**
2	75	- 0 LSB
2	37	- 1
2	18	- 1
2	9	- 0
2	4	- 1
2	2	- 0
MSB	1	- 0

$(150)_{10} = (10010110)_2$

Binary Number to Octal

10010110 = ?

010	010	110
2	2	6

$(10010110)_2 = (226)_8$

4. Write short note on ISCII

* ISCII means Indian Standard Code for Information Interchange. Itis the system of handling the character of Indian local languages.

* This as a 8-bit coding system. Therefore it can handle 256 (28) characters.

* The department of Electronics in India in the year 1986- 88 and recognized by Bureau of Indian Standards (BIS).

5. Add a) $-22_{10} + 15_{10}$

2 | 22
2 | 11 - 0 LSB
2 | 5 - 1
2 | 2 - 1
MSB 1 - 0

The Binary equivalent of $22_{10} = (10110)_2$

Binary equivalent of +22 = 10110
8 bit format = 00010110
1's complement = 11101001
Add 1 bit = +1
2's complement −22 = 11101010

2 | 15
2 | 7 - 1 LSB
2 | 3 - 1
MSB 1 - 1

The Binary equivalent of $15_{10} = (1111)_2$

The binary addition of −22 and 15

$-22_{10} = 11101010_2$
$+15_{10} = 00001111_2$
$-7_{10} = 11111001_2$

$-7_{10} = \mathbf{11111001}_2$

b. $20_{10} + 25_{10}$

2	20	
2	10	- 0 LSB
2	5	- 0
2	2	- 1
MSB	1	- 0

The Binary equivalent of $20_{10} = 10100_2$

2	25	
2	12	- 1 LSB
2	6	- 0
2	3	- 0
MSB	1	- 1

The Binary equivalent of $25_{10} = 11001_2$

8 bit format of 20_{10} = 00010100

8 bit format of 25_{10} = 00011001

45_{10} = 00101101

45_{10} = **(00101101)** $_2$

SECTION - D

Explain in detail

1. a) Write the procedure to convert fractional Decimal to Binary

The method of repeated multiplication by 2 has to be used to convert such kind of decimal fractions. The steps involved in the method of repeated multiplication by 2:

Step 1: Multiply the decimal fraction by 2 and note the integer part. The integer part is either 0 or 1.

Step 2: Discard the integer part of the previous product. Multiply the fractional part of the previous product by 2. Repeat Step 1 until the same fraction repeats or terminates (0).

Step 3: The resulting integer part forms a sequence of 0s and 1s that become the binary equivalent of decimal fraction.

Step 4: The final answer is to be written from first integer part obtained till the last integer part obtained.

b.Convert $(98.46)_{10}$ to Binary

i.Integer Part

2	98	
2	49	- 0 LSB
2	24	- 1
2	12	- 0
2	6	- 0
2	3	- 0
MSB	1	- 1

$98_{10} = \mathbf{(1100010)}_2$

ii) Fraction Part

$0.46 \times 2 = 0.92 = 0$

$0.92 \times 2 = 1.84 = 1$

$0.84 \times 2 = 1.68 = 1$

$0.68 \times 2 = 1.36 = 1$

$0.36 \times 2 = 0.72 = 0$

$0.72 \times 2 = 1.44 = 1$

$0.44 \times 2 = 0.88 = 0$

$46_{10} = \mathbf{(0111010)}_2$

$(98.46)_{10} = \mathbf{(1100010.\ 0111010\ldots.)}_2$

2. Find 1's Complement and 2's Complement for the following Decimal number

a.-98

2	98	
2	49	- 0 LSB
2	24	- 1
2	12	- 0
2	6	- 0
2	3	- 0
MSB	1	- 1

The Binary equivalent of 98_{10} = **$(1100010)_2$**

Binary equivalent of +98	=	1100010
8 bit format	=	01100010
1's complement	=	10011101
Add 1 bit	=	+1
2's complement −98	=	10011110

$-98 = (10011110)_2$

b.-135

2	135	
2	67	- 1 LSB
2	33	- 1
2	16	- 1
2	8	- 0
2	4	- 0
2	2	- 0
MSB	1	- 0

The Binary equivalent of 135_{10} = **$(1000111)_2$**

Binary equivalent of +135	=	10000111
8 bit format	=	10000111
1's complement	=	01111000
Add 1 bit	=	+1
2's complement −135	=	01111001

$-135 = (01111001)_2$

a) Add $1101010_2 + 101101_2$

	1	1	0	1	0	1	0
+		1	0	1	1	0	1
1	0	0	1	0	1	1	1

$0 + 1 = 1$

$1 + 0 = 1$

$1 + 1 = 10$

$1 + 1 + 1 = 11$

$1101010_2 + 101101_2 = 10010111_2$

b.Subtract $1101011_2 - 111010_2$

	1	1	0	1	0	1	1
-		1	1	1	0	1	0
	0	1	1	0	0	0	1

$1 - 0 = 1$

$1 - 1 = 0$

$10 - 1 = 1$

$1101011_2 - 111010_2 = 0110001_2$

3. Explain the following terms of details (1) BCD 2. ASCII 3. EBCDIC 4. UNICODE

1. Binary Coded Decimal (BCD) This encoding system is not in the practice right now. This is 26 bit encoding system. This can handle 26= 64 characters only

2. American Standard Code for Information Interchange (ASCII)

This is the most popular encoding system recognized by United States. Most of the computers use this system. Remember this encoding system can handle English characters only. This can handle 27bit which means 128 characters. In this system, each character has individual number (Refer Appendix). The new edition (version) ASCII -8, has 28 bits and can handle 256 characters are represented from 0

to 255 unique numbers.The ASCII code equivalent to the uppercase letter ‘A’ is 65. The binary representation of ASCII (7 bit) value is 1000001. Also 01000001 in ASCII-8 bit.

3. Extended Binary Coded Decimal Interchange Code (EBCDIC)

This is similar to ASCII Code with 8 bit representation. This coding systemis formulated by International Business Machine(IBM). The coding system can handle 256 characters. The input code in ASCII can be converted to EBCDIC system and vice - versa.

4. Unicode

This coding system is used in most of the modern computers. The popular coding scheme after ASCII is Unicode. ASCII can represent only 256 characters. Therefore English and European Languages alone can be handled by ASCII. Particularly there was a situation, when the languages like Tamil, Malayalam, Kannada and Telugu could not be represented by ASCII. Hence, the Unicode was generated to handle all the oding system of Universal languages. This is 16 bit code and can handle 65536 characters.

COMPUTER APPLICATIONS

3 . COMPUTER ORGANIZATION

SECTION – A

Choose the correct answer:

1. Which of the following is said to be the brain of a computer?
   (a) Input devices (b) Output devices (c) Memory device (d) **Microprocessor**
2. Which of the following is not the part of a microprocessor unit?
   (a) ALU (b) Control unit (c) **Cache memory** (d) register
3. How many bits constitute a word?
   (a) 8 (b) 16 (c) 32 (d) **Determined by the processor used.**
4. Which of the following device identifies the location when address is placed in thememory address register?
   (a) Locator (b) Encoder (c) **Decoder** (d) Multiplexer
5. Which of the following is a CISC processor?
   (a) Intel P6 (b) AMD K6 (c) **Pentium III** (d) Pentium IV
6. Which is the fastest memory?
   (a) Hard disk (b) Main memory (c) **Cache memory** (d) Blue-Ray dist
7. How many memory locations are identified by a processor with 8 bits address busat a time?
   (a) 28 (b) 1024 (c) **256** (d) 8000
8. What is the capacity of 12cm diameter DVD with single sided and single layer?
   (a) **4.7 GB** (b) 5.5 GB (c) 7.8GB (d) 2.2 GB
9. What is the smallest size of data represented in a CD?
   (a) Blocks (b) Sectors (c) **Pits** (d) Tracks
10. Display devices are connected to the computer through.
    (a) USB port (b) Ps/2 port (c) SCSI port (d) **VGA connector**
11. Microprocessors were first introduction in the early.
    (a) 1956 (b) 1958 (c) 1960 (d) **1970**
12. The first gentral purpose microprocessor was---------.
    (a) 5005 **(b)4004** (c) 8085 (d) 8086
13. System bus is the collection of----------.
    (a) 1 (b) 2 (c) **3** (d) 4
14. Clock Speed is measured in----------.
    (a) MHz (b) GHz (c) **a and b** (d) Hertz
15. Which bus in Unidirectional?
    (a) **Address Bus** (b) Data Bus (c) Control Bus (d) System Bus
16. Which bus in Bidirectional?
    (a) Address Bus (b) **Data Bus** (c) Control Bus (d) System Bus
17. Which of the following is not an example of RISC Processor?
    (a) IntelP6 (b) Pentium IV (c) **Pentium II** (d) AMD K6
18. The Main Memory also Called as--------.
    (a) **RAM** (b) ROM (c) Cache (d) EPROM
19. Which of the following is a Voltile Memory?
    (a) **ROM** (b) RAM (c) Both a and b (d) EEPROM
20. The capacity of the Ordinary CD is----------.
    (a) 700 GB (b) **700MB** (c) 700 KB (d) 700 TB
21. The Capacity of Blue Ray dise is more then five time of ----------.
    (a) **CD** (b) Flash Drive (c) DVD (d) HDD

SECTION-B

SHORT ANSWERS

1. What are the parameters which influence the characteristics of a microprocessor?

A Microprocessor's performance depends on the following characteristics:

* Clock speed * Instruction set * Word size

2. What is an instruction?

A command which is given to a computer to perform an operation on data is called an instruction.

3. What is a program counter?

The Program Counter (PC) is a special register in the CPU which always keeps the address of the next instruction to be executed.

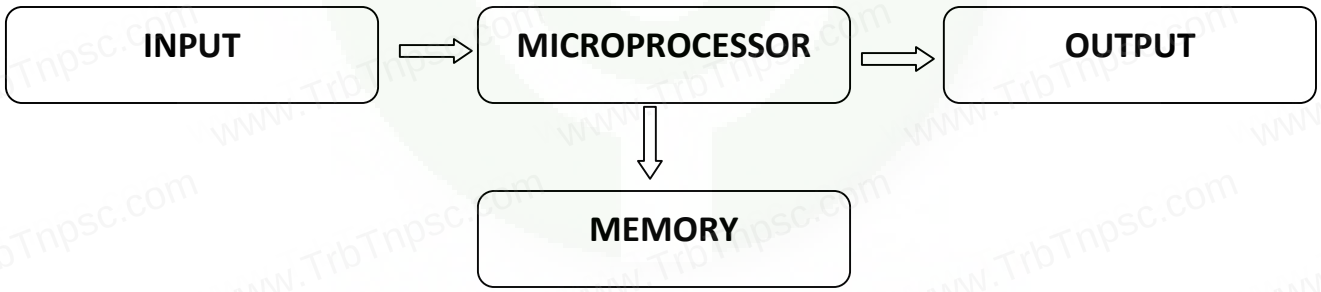
4. What is HDMI?

High-Definition MultimediaInterface is an audio/video interfacewhich transfers the uncompressed videoand audio data from a video controller,to a compatible computer monitor, LCDprojector, digital television etc.

5. Which source is used to erase the content of a EPROM?

Ultraviolet rays is used to erase the content of a EPROM.

6. Draw the block Diagram of a Microprcessor based system.



7. What is instruction set?

Basic set of machine level instruction that a microprocessor is designed to execute is called as an intruction set.

8. What is MDR?

Memory Data Register is the register of a computer's control units the data to be stored in the computer storage(Eg.RAM).It is also called Memory Buffer Register.

9. What is Memory Access Time?

It is the time required to read or write data in a proper memory location or to retrieve or to stored data from the storage unit.

10. How the microprocessors classified based based on intruction?

(i). Reduced Instruction set computer(RISC) (ii). Complex Instruction set computer(CISC)

11. Differentiate SRAM and DRAM.

SRAM(Static Random Access Memery	DRAM(Dynamic Random Access Memory)
Static Random Access Memory needs to be refershed less often, which makes it faster. Static SRAM is more expensive than dynomic RAM.	Dynomic Random Access memory being common types needs be refershed frequently.

12. Define "Pits" and "Lands" in CD?

CD data is represented as tiny indentations known as "pits", encoded in a spiral track molded into the top of the polycarcorbonate layer. The areas between pits are known as "Lands".

SECTION-C

EXPLAIN IN BRIEF

1. What is microprocessor?

The microprocessor which is an integrated Circuit. Microprocessors were first introducted in early 1970s. The first general purpose microprocessor, 4004 was developed by Intel Inc.

Microprocessor is a programmable multipurpose silicon chip.It is driven by clock pulses.It accepts input as a binary data and after processing, it provides the output data as per the instructions stored in the memory.

2. Differentiate Computer Organization from Computer Architecture.

Computer organization	Computer Architecture
Computer organization deals with the hardware components of a computer system. It includes Input / Output devices, the Central Processing Unit, storage devices and primary memory. Computer Organization deals with the hardware components that are transparentto the programmer.	Computer Architecture also deals with how they are interconnected to implement an architectural specification. Computer architecture deals with the engineering considerations involved in designing a computer

3. Classify the microprocessor based on the size of the data.

Depending on the data width, microprocessors can process instructions. The microprocessors can be classified as follows:

* 8-bit Microprocessor
* 16-bit Microprocessor
* 32-bit microprocessor
* 64-bit microprocessor

3.Write down the classifications of microprocessors based on the instruction set.

RISC stands for Reduced Instruction Set Computers. They have asmall set of highly optimized instructions.Complex instructions are alsoimplemented using simple instructions, thus reducing the size of the instruction set.

Example: RISC processors are Pentium IV, Intel P6, AMD K6 and K7.

CISC stands for Complex Instruction Set Computers. They support hundreds of instructions. Computerssupporting CISC can accomplish a widevariety of tasks, making them ideal forpersonal computers.

Example: CISC processors are Intel 386& 486, Pentium, Pentium II and III, and Motorola 68000.

4. Differentiate PROM and EPROM.

PROM	EPROM
Programmable read only memory is also a non-volatile memory. PROMs retain their contents even when the computer is turned off. PROM can be written only once and cannot be erased.	Erasable Programmable Read Only Memory is a special type of memory EPROM retains its contents until it is exposed to ultraviolet light. Ultraviolet rays is used to erase the content of a EPROM

5. Write down the interfaces and ports available in a computer.

Serial Port :To connect the external devices, found in old computers.

Parallel Port :To connect the printers, found in old computers.

USB Ports :To connect external devices like cameras, scanners, mobile phones, external hard disks and printers to the computer.

VGA Connector: To connect a monitor or any display device like LCD projector.

Audio Plugs :To connect sound speakers,microphone and headphones.

PS/2 Port :To connect mouse and keyboard to PC.

SCSI Port : To connect the hard disk drives and network connectors.

6. Differentiate CD and DVD

CD	DVD
CD stands for Compact Disk CD data is represented as tiny indentations known as "pits" The capacity of an ordinary CD-ROM is 700MB. A CD is made from 1.2 millimeters thick, polycarbonate plastic material.	DVD stands for Digital Versatile Disc DVD-ROM can be visually determined by noting the number of data sides of the disc The capacity of DVD is 4.7 GB A DVD is made from 12 cm diameter disc with single sided, single layer has 4.7 GB capacity

7. How will you differentiate a flash memory and an EEPROM?

Flash Memory	EEPROM
Flash memory is an electronic (solid-state) non-volatile computer storage Flash memory offers fast access times. It can be erased by exposing it to an electrical charge.	Electrically Erasable Programmable Read Only Memory is a special type of PROM EEPROM is slower in performance.

SECTION - D

Explain in detail

1. Explain the characteristics of a microprocessor.

The microprocessor which is an integrated Circuit. Microprocessors were first introducted in early 1970s. The first general purpose microprocessor, 4004 was developed by Intel Inc.

Microprocessor is a programmable multipurpose silicon chip.It is driven by clock pulses.It accepts input as a binary data and after processing, it provides the output data as per the instructions stored in the memory.

A Microprocessor's performance depends on the following characteristics:

* **Clock speed**
* **Instruction set**
* **Word size**

Clock speed

Every microprocessor has an internal clock that regulates the speed at which it executes instructions. The speed at which the microprocessor executes instructions is called the clock speed. Clock speed is measured in MHz (Mega Hertz) or in GHz (Giga Hertz).

Instruction Set

A command which is given to a computer to perform an operation on data is called an instruction. Basic set of machine level instructions that a microprocessor is designed to execute is called as an instruction set. This instruction set carries out the following types of operations:

* Data transfer
* Arithmetic operations
* Logical operations
* Control flow
* Input/output

Word Size

• The number of bits that can be processed by a processor in a single instruction is called its word size. Word sizedetermines the amount of RAM that canbe accessed by a microprocessor at one

time and the total number of pins on the microprocessor. Total number of input and output pins in turn determines the architecture of the microprocessor.

2. How the read and write operations are performed by a processor? Explain.

The read operation fetches data from memory and transfers to MDR. A single control line performs two operations like Read/Write using 1or 0. Also, the write operation transfers data from the MDR to memory.

The word in the RAM has the same size (no. of bits) as the Memory DataRegister (MDR). If the processor is an 8-bit processor like Intel 8085, its MDR and the word in the RAM both have 8 bits.If the size of the MDR is eight bits, which can be connected with a word in the memory which is also eight bits size.The data bus has eight parallel wires to transfer data either from MDR to word or word to MDR based on the control(Read or write). This control line is labeled as R/W , which becomes 1 means READ operation and 0 means WRITE operation.

The content of MDR and the word before the READ operation.Also, the content of MDR and the word after the READ operation.The read operation transfers the data(bits) from word to memory data register. The write operation transfers the data (bits) from memory data register to word.

3. Arrange the memory devices in ascending order based on the access time.

Blu-Ray Disc

Blu-Ray Disc is a high-density optical disc similar to DVD. Blu-ray is the type of disc used for PlayStation games and for playing High-Definition (HD) movies. A double-layer Blu-Ray disc can store up to 50GB (gigabytes) of data.

This is more than 5 times the capacity of a DVD, and above 70 times of a CD. The format was developed to enable recording, rewriting and playback of high-definition video, as well as storing large amount of data.

Hard Disks

Hard disk is a magnetic disk on which you can store data. The hard disk has the stacked arrangement of disks accessed by a pair of heads for each of the disks. The hard disks come with a single or double sided disk.Hence, it is called as Blu-Ray.

Random-Access Memory (RAM)

The main memory is otherwise called as Random Access Memory. This is available in computers in the form of Integrated Circuits (ICs). It is the place in a computer where the Operating System,

Application Programs and the data in current use are kept temporarily so that they can be accessed by the computer's processor.The smallest unit of information that can be stored in the memory is called as a bit. The memory can be accessed by a collection of 8 bits which is called as a byte.

Cache Memory

The cache memory is a very high speed and expensive memory, which is used to speed up the memory retrieval process. Due to its higher cost, the CPU comes with a smaller size of cache memory compared with the size of the main memory. Without cache memory, every time the CPU requests the data, it has to be fetched from the main memory which will consume more time.

The idea of introducing a cache is that, this extremely fast memory would store data that is frequently accessed and if possible, the data that is closer to it. This helps to achieve the fast response time, Whereresponse Time, (Access Time) refers to how quickly the memory can respond to a read / write request. The arrangement of cache memory between the CPU and the main memory.

4. Explain the types of ROM.

Read Only Memory (ROM)

Read only memory refers to special memory in a computer with pre-recorded data at manufacturing time which cannot be modified. The stored programs that start the computer and perform diagnostics are available in ROMs.

Programmable Read Only Memory (PROM)

Programmable read only memory is also a non-volatile memory on which data can be written only once. Once aprogram has been written onto a PROM, it remains there forever. Unlike the main memory, PROMs retain their contents even when the computer is turned off.

The PROM differs from ROM. PROM is manufactured as a blank memory, whereas a ROM is programmed during the manufacturing process itself. PROM programmer or a PROM burner is used to write data to a PROM chip. The process of programming a PROM is called burning the PROM.

Erasable Programmable ReadOnly Memory (EPROM)

Erasable Programmable Read Only Memory is a special type of memory which serves as a PROM, but the content can be erased using ultraviolet rays. EPROM retains its contents until it is exposed to ultraviolet light. The ultraviolet light clears its contents, making it possible to reprogram the memory.

An EPROM differs from a PROM,PROM can be written only once and cannot be erased. EPROMs are used widely in personal computers because they enable the manufacturer to change the contents of the PROM to replace with updated versions or erase the contents before the computer is delivered.

Electrically Erasable Programmable Read Only Memory (EEPROM)

Electrically Erasable Programmable Read Only Memory is a special type of PROM that can be erased by exposing it to an electrical charge. Like other types of PROM, EEPROM retains its contents even when the power is turned off. Comparing with all other types of ROM, EEPROM is slower in performance.

COMPUTER APPLICATIONS
4. THEORETICAL CONCEPTS OF OPERATING SYSTEM
SECTION – A

Choose the correct answer:

1. Operating system is a ----------.
   A. Application Software b) Hardware c) **System Software** d) Component
2. Identify the usage of Operating Systems ----------.
   a.Easy interaction between the human and computer b) Controlling input & output Devices
   c. Managing use of main memory d) **All the above**
3. Which of the following is not a function of an Operating System?
   A. Process Management b) Memory Management
   C. Security management d) **Complier Environment**
4. Which of the following OS is a commercially licensed Operating system?
   A.Windows b) UBUNTU c) FEDORA d) REDHAT
5. Which of the following Operating systems support Mobile Devices?
   a)Windows 7 b)Linux c) BOSS d) **iOS**
6. File Management manages ----------.
   a.Files b) Folders c) Directory systems d) **All the Above**
7. Interactive Operating System provides
   a.**Graphics User Interface (GUI)** b) Data Distribution
   c. Security Management d) Real Time Processing
8. Android is a ----------.
   a. Mobile Operating system b) Open Source
   c.Developed by Google d) **All the above**
9. Which of the following refers to Android operating system's version?
   a. JELLY BEAN b) UBUNTU c) OS/2 d) MITTIKA
10. Which of the following acts as an interface between a user and a computer?
    a. Input device b) Output device c) Bus **d) Operating System**
11. Which of the following is used that the user cannot communicate directly with the hardware?
    a. Device Management b) Utlity program c) Application **d) Operating System**
12. Which of the following operation systems not Used in Laptops?
    a. Windows b) Linux **c) iOS** d) UNIX
13. Processing takes place in parallel is called Operating System.
    a. Real Time b) MultiUser c) Distributed **d) Multiprocessing**
14. In which OS the processor time is divided among different tasks?
    a. **Time Sharing** b) Multiprocessor c)MultiUser d) Real Time
15. Which of the following is a Single User Operating system?
    a. Unix b) Windows c)**MS-DOS** d) Linux
16. The Term " Time sharing" has been replaced by _____.
    a. Multiprocessing b. Distributed c**. Multitasking** d. MultiUser

SECTION-B

Short Answers

1. What are the advantages of memory management in Operating System?

* Keeping track of which portion of memory are currently being used and who is using them.
* Determining which processes (or parts of processes) and data to move in and out of memory.

Allocation and de-allocation of memory blocks as needed by the program in main memory. (Garbage Collection)

2. What is the multi-user Operating system?

Multi-user Operating system is used in computers and laptops that allow same data and applications to be accessed by multiple users at the same time. The users can also communicate with each other.

Example: Windows, Linux and UNIX

3. What is a GUI?

The GUI is a window based system with a pointing device to direct I/O, choose from menus, make selections and a keyboard to enter text. Its vibrant colours attract the user very easily.

4. List out different distributions of Linux operating system.

There are a few different distributions of Linux, like Ubuntu, Mint, Fedora, RedHat, Debian, Google's Android, Chrome OS, and Chromium OS which are popular among users.

5. What are the security management features available in Operating System ?

The Operating System provides three levels of securities to the user end. They are File access level, System level, Network level

6. What is multi-processing?

Multi-processing is a one of the features of Operating System. It has two or more processors for a single running process (job). Processing takes place in parallel is known as parallel processing. Each processor works on different parts of the same task

7. What are the different Operating Systems used in computer?

Some of the popular Operating Systems used in personal computers and laptops are Windows, UNIX and Linux.

The different Operating Systems used in computer are:

* Single User Operating Systems* Multi-user Operating Systems* Distributed Operating Systems

8. What is an Operating System?

An Operating System is a system software which serves as the interface between a user and a computer.

9. What do you mean by Time sharing OS?

It allows execution of more then one tasks or proceses concurrently. For this the processor timeis divided amongst different tasks. This division of time is also called time sharing.

10. Name the Distributors of Linux.

i. BOSS

ii. Ubundu

iii. Mint

iv. Fedora

v. Redhat

vi. Debian

vii. Google' s Android

viii. Chrome OS and Chromium OS

11. What is Mobile OS?

A Mobile OS Controls a moblie device and its design supports wireless communication and different types of mobile applications.

12. Write note on Andriod.

Andriod is a Mobile Operation system developed by Google, Based on the Linux and designed primarily for touchscreen mobile divices such as smart phones and tablets.

13. What is meant by Algorithms?

A Process or set of rules to be followed in calculation or other problem – solving operations especially by a computer.

14. What is Workstation?

A workstation is a special computer designed for technical or scientific appliction.

15. Define Robotics.

The branch of technology that deals with the designm construction, Operation and applications of robots.

16. What is Open Source software?

Open Source based software refers to those categories of software / programs whose licenses do not impose much condition.

SECTION-C

Explain in Brief

1. What are the advantages and disadvantages of Time-sharing features?

Advantages	Disadvantages
In time sharing systems all the tasks are given specific time and task switching time is very less so applications don't get interrupted by it.	The big disadvantages of time sharing systems is that it consumes much resources so it need special operating systems.
Many applications can run at the same time.	Switching between tasks becomes sometimes sophisticated as there are lot of users and applications running which may hang up the system
You can also use time sharing in batch systems if appropriate which increases performance.	
Provides the advantage of quick response, Avoids duplication of software, Reduces CPU idle time.	Problem of reliability, Question of security and integrity of user programs and data, Problem of data communication

2. Explain and List out examples of mobile operating system.

* A mobile operating system controls a mobile device and its design supports wireless and communication and different types of mobile applications.

* It operates such as phones, tablets and MP3 players are different from desktop and laptop computers and hence they need special Operating Systems

Android : Android is a mobile operating system developed by Google, based on Linux and designed primarily for touch screen mobile devices such as smart phones and tablets.

iOS - iPhone OS : It is the Operating System that presently powers many of the company's mobile devices, including the iPhone, iPad and iPod Touch.

3. What are the differences between Windows and Linux Operating system?

Windows	Linux
Windows is a licensed operating system in which source code is **inaccessible.** Windows Series - for desktop and laptop computers. Microsoft Windows is one of the most popular Graphical User Interface (GUI).Windows must boot from the primary partition.	**Linux** is a free and open source operating system based on Unix standards. Linux - Open source Operating System for desktop and server. Linux is one of the popular Open Source versions of the UNIX Operating System. Linux it can be booted from either primary or logical partition.

4. **Explain the process management algorithms in Operating System.**

* Process management is function that includes creating and deleting processes and providing mechanisms for processes to communicate and synchronize with each other.

* The following algorithms are mainly used to allocate the job (process) to the processor, SJF, Round Robin, Based on Priority

FIFO (First In First Out) : This algorithm is based on queuing technique.

SJF (Shortest Job First) : This algorithm works based on the size of the job being executed by the CPU.

Round Robin : The Round Robin (RR) scheduling algorithm is designed especially for time sharing systems.

Based On Priority: The given job (process) is assigned based on a Priority.

5. Write note on FAT.

Any type of data in a computer is stored in the form of files and directories/ folders through File Allocation Table(FAT). The FAT stores general information about files like filename, types(text or binary) , size,starting address and access mode (sequential/ indexed sequenctial / direct/relative).

6. What does security management refers?

Os seuirty mangement refers to specified steps or measures used to protect the Os from threats, virues, worms, malware or remote hacker intructions. OS security encompasses all preventive – control techniques, which safeguard and computer assets acpabl of being stolen, edited or deleted if OS security is compromised.

SECTION - D

Explain in detail

1. Explain the concept of a Distributed Operating System.

* This feature takes care of the data and application that are stored and processed on multiple physical locations across the world over the digital network (internet/intranet).

* The Distributed Operating System is used to access shared data and files that reside in any machine around the world. The user can handle the data from different locations. The users can access as if it is available on their own computer.

The advantages of distributed Operating System are as follows:

* A user at one location can make use of all the resources available at another location over the network.
* Many computer resources can be added easily in the network
* Improves the interaction with the customers and clients.
* Reduces the load on the host computer.

2. Explain the main purpose of an operating system.

* Operating System has become essential to enable the users to design applications without the knowledge of the computer's internal structure of hardware. Operating System manages all the Software and Hardware. Operating System manages all the Software and Hardware.

* Most of the time there are many different computer programmes running at the same time, they all need to access the Computers, CPU, Memory and Storage.

* The need of Operating System is basically - it is the interface between the user and hardware. Operating System converts processed information into user readable form

*To ensure that a computer can be used do to exact if what the user wants it do.

* Easy interaction between the users and computers.

* Starting computer operation automatically when power is turned on (Booting).

* Controlling Input and Output Devices

* Manage the utilization of main memory.

* Providing security to user programs.

3. Explain advantages and disadvantages of open source operating systems.
Advantages:

* Open-source software is free to use, distribute, and modify. It has lower costs, and in most cases this is only a fraction of the cost of their proprietary counterparts.

* Open-source software is more secured as the code is accessible to everyone. Anyone can fix bugs as they are found, and users do not have to wait for the next release.

- Lower costs?
- No vendor lock-in
- Increased potential of adaptation and innovation
- Highly interactive if you wish to network with greater community
- Reduction in time and effort if you just want to be a consumer
- Quality of software
- Security
- Easier to locate and fix "bugs"
- Creativity

Disadvantages

* The main disadvantage of open-source software is not being straightforward to use. Open-source operating systems like Linux cannot be learned in a day.

* There is a shortage of applications that run both on open source and proprietary software; therefore, switching to an open-source platform involves a compatibility analysis of all the other software used that run on proprietary platforms.

- Not as user friendly as commercial software
- Adequate support from IT department?
- OSS is a work-in-progress
- Lack of technical ability
- Fear of the unknown
- Institutional and organizational procurement process affecting the decision making process

COMPUTER APPLICATIONS

5. WORKING WITH TYPICAL OPERATING SYSTEM

PART – I WORKING WITH WINDOWS

PART – II WORKING WITH LINUX

SECTION – A

Choose the correct answer:

1. From the options given below, choose the operations managed by the operating system.
   a.Memory b. Processes c. Disks and I/O devices d. **All of the above**
2. Which is the default folder for many Windows Applications to save your file?
   a. My Document b. My Pictures c. Documents and Settings d. My Computer
3. Under which of the following OS, the option Shift + Delete – permanently deletes a file or folder? a.Windows 7 b. Windows 8 c.Windows10 d. **All of the OS**
4. What is the meaning of "Hibernate" in Windows XP/Windows 7?
   a.Restart the Computer in safe mode
   b.Restart the Computer in hibernate mode
   c.Shutdown the Computer terminating all the running applications
   d.**Shutdown the Computer without closing the running applications**
5. Which of the following OS is not based on Linux?
   a. Ubuntu b. Redhat c. CentOS d. **BSD**
6. Which of the following in Ubuntu OS is used to view the options for the devices installed?
   a. **Settings** b. Files c. Dash d. VBox_GAs_5.2.2
7. Identify the default email client in Ubuntu.
   a. **Thunderbird** b. Firefox c. Internet Explorer d. Chrome
8. Which is the default application for spreadsheets in Ubuntu? This is available in the software launcher.
   a.LibreOffice Writer b. **LibreOffice Calc**
   b. LibreOffice Impress d. LibreOffice Spreadsheet
9. Which is the default browser for Ubuntu?
   a. **Firefox** b. Internet Explorer c. Chrome d. Thunderbird
10. Where will you select the option to log out, suspend, restart, or shut down from the desktop of Ubuntu OS?
    a. **Session Indicator** b. Launcher c. Files d. Search
11. Which windows version focused on Multitasking?
    a.**95** b. 98 c. xp d. windows 7
12. In which version of windows, DOS gaming disappear?
    a. 95 b. ME c. **98** d. W2K
13. How many version of windows 2000 were released?
    a. 3 b. 1 c. **4** d. 2
14. Which of the following is not a version of windows 2000?
    a. server b. **DOS** c. Professional d. Data center server
15. Which version of windows taskes better advantage of multicore processing?
    a. 7 b. **8** c. 10 d. 3

16.Which palys vital role in GUI?

a. **icon** b. Windows c. Desktop d. task bar

17.A dirctory contains information about the _____.

a. Data b.Records c. icon d. **files**

18.The default name of folder created is_____.

a. New b. Folder c. Folder new d. **New folder**

19.The most common way of opening of file or a folder using mouse is_____.

a. Click b. Drog c. **Double click** d. drog and drop

20.Which commond is used to cut file or folder?

a. File → Cut b. **Edit → Cut** c. Edit → Move d. Format → Cut

21.The shorcut key is used to cut file or foldrt?

a. Alt + C b. Ctrl + C c. **Ctrl + X** d. Alt + X

22.Which commond is used to copy file or folder?

a. File → Copy b. **Edit → Copy** c. Edit → copy d. Format → Copy

23.The shorcut key is used to copy file or foldrt?

a. Alt + S b. Ctrl + V c. **Ctrl + C** d. Alt + C

24.Which key combinationa is used to delete the file or folder permanently?

a. Ctrl + Delete b. Ctrl + C c. **Shift +delete** d. Ctrl+ Shift+ Delete

25.Which OS is designed for computer, Smartphone and network server?

a. Android b. **Ubuntu** c. iOS7 d. None of these

26.Match the following

i. Tablet OS - Linux

ii. Desktop OS - Andriod

iii. Smart Phone OS - iOS

iv. OS Used in Super Computer - Windows 7

a. Alt + C b. 1,4,2,3 c. **3,4,2,1** d. 4,3,1,2

27. How the files are displayed in windows OS?

a. **tree Structure** b. Data stucture c.File structure d. All of these

SECTION-B

Short Answers

1. Differentiate cut and copy options.

Cut	Copy
An option that allows the user to move thecontent from one document to another. The shortcut keys used for moving a text is Ctrl + X	An option that allows the user to make aduplicate of the original content. The shortcut keys used for copying a text is Ctrl + C

2. What is the use of a file extension?

A file extension or file name extension helps to identify the type of file. The extension indicates a characteristic of the file contents or its intended use.

Examples: .txt, .doc / .docx, .odt, .ods, .odp

3. Differentiate Files and Folders.

Files	Folders
A file consists of a collection of data. Each file has its own extension. Folder and sub folder cannot be created in a file	A folder stores files and folders. It is also called a directory. A folder does not have any extension Folder and sub folder can be created in a folder

4. Differentiate Save and Save As option.

Save	Save As
Save" command is use to save a document by only one name The shortcut keys used for save a text is Ctrl + S	**"Save As"** command we can save a file by two or more than two names. The shortcut key used for Save As in MS-Word is F12 The shortcut keys used for Save As in Open Office is Ctrl+Shift+S

5. What is Open Source?

Open Source refers to a program or software in which the source code is available in the web to the general public free of cost.

6. What are the advantages of open source?

* Open source is available in the web to the general public free of cost.
* Open-source software is more secured as the code is accessible to everyone.
* Open source code can continuously improve by the programmers in the web.

7. Mention the different server distributions in Linux OS.

The most popular Linux server distributors are:

* Ubuntu Linux
* Linux Mint
* Arch Linux
* Deepin
* Fedora
* Debian
* CentOS

8. How will you log off from Ubuntu OS?

After finishing your work, you can choose Log Out, Suspend or Shut down through the Session Indicator on the far right side of the top panel to log off your computer.

9. Name any four icons in the Ubuntu OS desktop?

i. Amazon ii. Trash iii. Files iv. System Setting

10. What is Multi – tasking?

Multiple applictions which can execute simultaneosly in windows is known as Multi tasking.

11. Name the four versions of Windows 2000?

The four versions of windows 2000 were released:

i. Professional : (for business desktop and laptop system)

ii. Server : (both a Web Server and an office server)

iii. Advanced Server: (for line – of – business applications)

iv. Data center server : (for high traffic computer network)

12. Which is Ubuntu?

i. A quality that includes the essential human vitues, comparsion and humanity is called Ubuntu.

ii. Ubuntu is an Open source os for computer.

iii. It is a linux distrinbution based on the debian architature.

SECTION-C

Explain in Brief

1.Analyze: Why the drives are segregated?

* Drives are segregated to organize the space on a hard drive.
* It is also used to isolate the operating system or programs from other user.
* You Can Use Multiple Operating Systems On The Same PC in different drives.
* Hard disk drives usually work better on smaller chunks of data rather than one big partition.

2. If you are working on multiple files at a time, sometimes the system may hang. What is the reason behind it. How can you reduce it?

*Each application open on the system takes some internal and hardware resources to keep it running.

*If you are running multiple programs at one time then, much more storage will be in use to run them properly.

* So your PC may run low or hang.

*To avoid this, it is advisable to run one program at a time or upgrade your Pc's Configuration to run multiple applications at the same time.

3. Are drives such as hard drive and floppy drives represented with drive letters? If so why, if not why?

* Yes hard drives and floppy drives can be identified by drive letters such as "C:", "D:", "E:" etc. *A drive letter is a single alphabetic character A through Z that has been assigned to a physical computer drive.

*In the above example,
Drive A: is the floppy drive,
C.is the primary hard drive,
D.and E: are partitions of the hard drive, and
Typically, the CD-ROM drive is the last drive letter, so in most situations the hard drive is the C.drive .

4. Write the specific use of Cortana.

* Cortana is a voice-controlled virtual assistant for Microsoft Windows.

* Cortana is used to get weather forecasts, set reminders, Entertainment, send email, Maps/Navigation, Random tips and tricks, find files, search the Internet and so on.

5.List out the major differences between Windows and Ubuntu OS .

Windows	Ubuntu
Windows is a closed-source operating system Majority of Windows OS is developed by Microsoft Windows supports the office suite called MS Office. Default web browser for Windows OS is Internet Explorer.	Ubuntu is an open-source Linux-based operating system . Ubuntu is v op Canonical Limited. Ubuntu upports the office suite called LibreOffice. Default web browser for Ubuntu OS is Firefox.

6. Are there any difficulties you face while using Ubuntu? If so, mention it with reasons.

Yes, many difficulties are these while using Ubuntu operating system

* It becomes difficult to configure modem to start work on internet.
* It is not possible to play the modern games in Ubuntu OS. It shows the poor graphics quality
* Though Linux (Ubuntu) has number of free applications and software available on net, but most of the applications are not found for Linux use.
* Ubuntu is not capable of playing MP3 files by default.
* The drivers support is also absent in most of the cases as compared other operating system.
* Different desktop managers lead to a fragmented experience.

7. Differentiate Thunderbird and Firefox in Ubuntu OS.

Thunderbird	Firefox
Ubuntu has in-built email software called Thunderbird It gives the user access to email such as Exchange, Gmail, Hotmail, etc.	Firefox is a Web Browser, you can directly browse the internet Firefox is great for new users to the Web as well as long time Web surfers.

8. Differentiate Save, Save As and Save a Copy in Ubuntu OS.

Save	Save As	Save a Copy
In U untu, th "**Save**" option will save the document without requesting for a new location or name. It will definitely over-write the original one.	In Ubuntu, the "**Save As**" option, it will prompt the task of saving with the help of a dialog box. You can easily change the name of file as well as location.	In Ubuntu, the "**Save A Copy**" you will be prompted to save a copy using the same dialog box as **"**Save As**".** You may change the file name as well as location.

9. What is OS.

An Operating System is a software program that enables the computer hardware to communicate and operate with the computer Software.

It also acts as an interface between the user and the computer hardware and controls the execution of all kinds of program.

SECTION - D

Explain in detail

1. Explain the versions of Windows Operating System.

Windows Me		2000	• It introduced automated system diagnostics and recovery tools.
Windows 2000		2000	• Served as an Operating System for business desktop and laptop systems. • Four versions of Windows 2000 were released: Professional (for business desktop and laptop systems), Server (both a Web server and an office server), Advanced Server (for line-of-business applications) and Data Centre Server (for high-traffic computer networks).
Windows XP		2001	• Introduced 64-bit Processor. • Improved Windows appearance with themes and offered a stable version.
Windows Vista		2006	• Updated the look and feel of Windows.
Windows 7		2009	• Booting time was improved, introduced new user interfaces like Aero Peek, pinning programs to taskbar, handwriting recognition etc. and Internet Explorer 8.
Windows 8		2012	• Windows 8 was faster than previous versions of Windows. • Start button was removed. • Windows 8 takes better advantage of multi-core processing, solid state drives (SSD), touch screens and other alternate input methods. • Served as common platform for mobile and computer.
Windows 10		2015	• Start Button was added again. • Multiple desktop. • Central Notification Center for App notification and quick actions. • Cortana voice activated personal assistant.

2. Draw and compare the icon equivalence in Windows and Ubuntu.

Icon	Windows	Icon	Ubuntu
	My Computer		Files
	Recycle Bin		Trash
	Internet Explorer		Fire Fox
	MS-Word		LibreOffice Writer
	MS-Excel		LibreOffice Calc
	MS-PowerPoint		LibreOffice Impress
	Search Programs and Files		Search your computer

Windows

Ubuntu

3. Complete the following matrix

Navigational Me	Located on	Ideally suited for
Start button	Task bar	**quickly start the installed programs as well as other Windows features**
My Computer	Desktop	Exploring your disk drives and using system tools
Windows Explorer	**Task Bar**	Seeing hierarchy of all computer contents and resources in one window.
Quick Launch	**Task Bar**	**Enables a user the ability to launch their programs quickly**

4. Write the procedure to create, rename,delete and save and save a file in Ubuntu OS. Compare it with Windows OS.

In Ubuntu OS:

i. **Create a file** : By right clicking in the desktop and also files be created by Using file menu.

ii. Delete a file : By Using right click and choosing move to trash or by using menu.

iii. Reneme a file : By using right click and choosing rename option.

iv. Save a file L Press Ctrl + X or F2 to exit. You will then be asked if you want to save.(or)

Ctrl + O or F3 and Ctrl +X or F2 for save and exit.

In Windows OS:

i. **Create file** : Open an application and created by using file menu.

ii. **Delete file** : By right click on a file and choose delete option to delete a file.

iii. **Rename a file** : By right click on a file and choose rename option to rename a file.

iv. **Save file** : Press Ctrl +S or file → Save to save the file.

5. Explain Mouse Actions.

Before learning Window Operating System, you should know more about mouse and its actions.

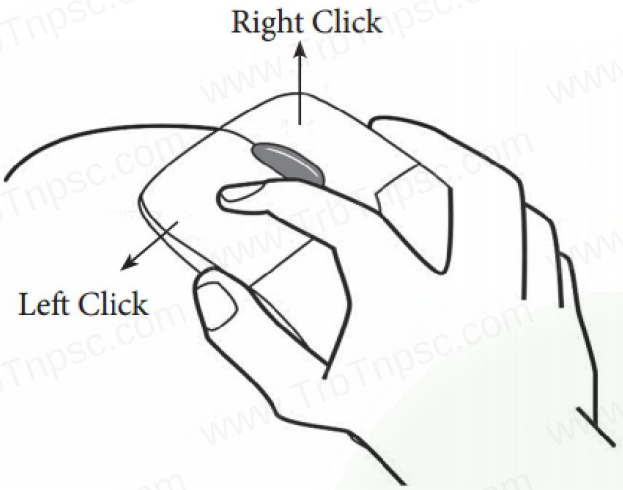


Figure 5.2.Mouse actions

Action	Reaction
Point to an item	Move the mouse pointer over the item.
Click	Point to the item on the screen, press and release the left mouse button.
Right click	Point to the item on the screen, press and release the right mouse button. Clicking the right mouse button displays a pop up menu with various options.
Double-click	Point to the item on the screen, quickly press twice the left mouse button.
Drag and drop	Point to an item then hold the left mouse button as you move the pointer and when you have reached the desired position, release the mouse button.

6. Explain different ways of creating a new folder.

There are two ways in which you can create a new folder:

Method I:

Step 1: Open **Computer Icon.**

Step 2: Open any drive where you want to create a new folder. (For example select D:)

Step 3: Click on File → New → Folder.

Step 4: A new folder is created with the default name "New folder". (Figure 5.19)

Step 5: Type in the folder name and press Enter key. (Figure 5.20 shows the newly created Folder named "Test Folder ").

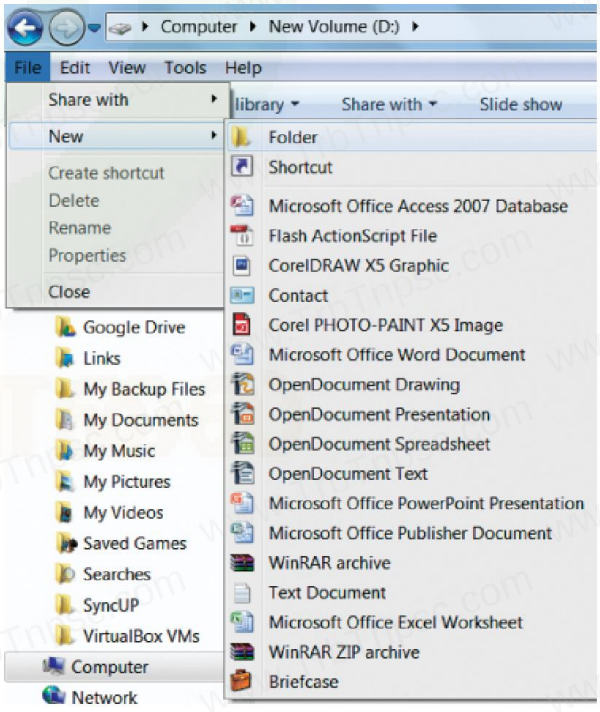


Figure 5.18. Creating a Folder using File menu

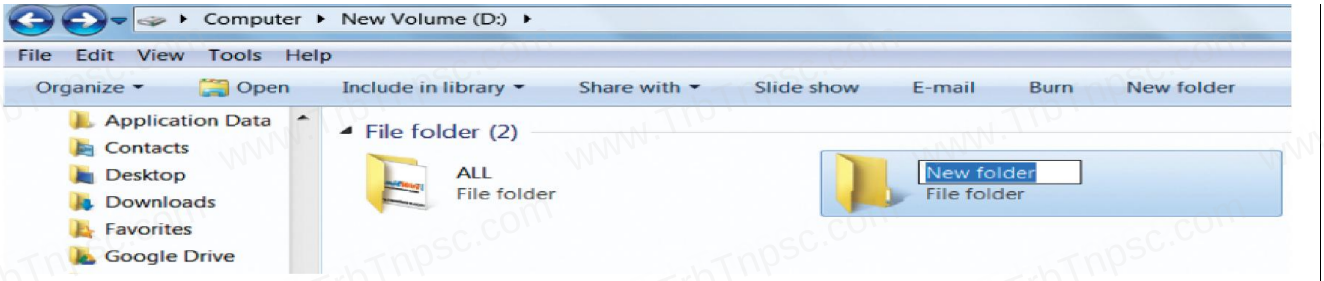
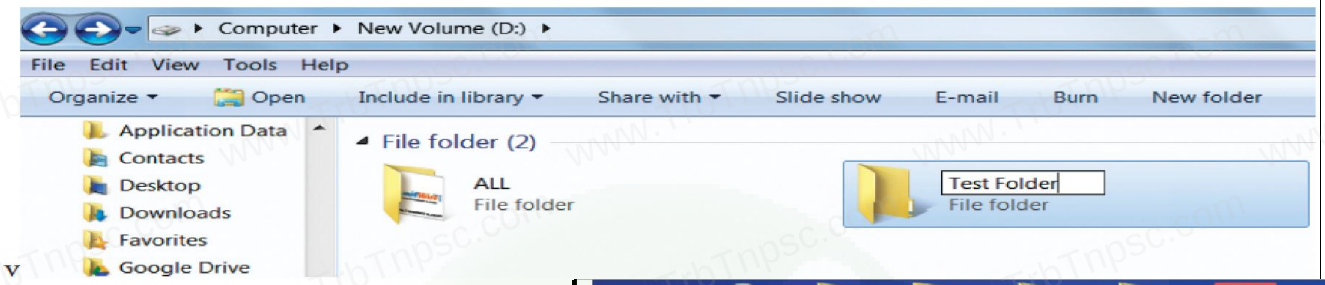


Figure 5.19. New Folder created with the default name



v

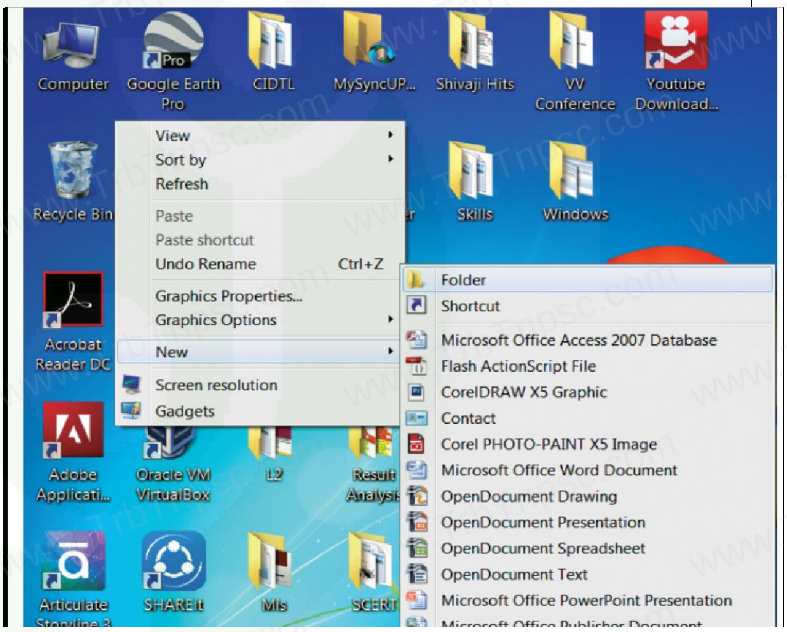
Method II:

In order to create a folder in the desktop:

Step 1: In the Desktop, right click → New → Folder. (Figure 5.21 Shown the procedure)

Step 2: A Folder appears with the default name "New folder" and it will be highlighted as shown in the Figure 5.22.

Step 3: Type the name you want and press Enter Key.



COMPUTER APPLICATIONS

6. INTRODUCTION TO WORD PROCESSOR

SECTION – A

Choose the correct answer

1. Which is the opening screen of OpenOffice?
   a.Star desktop b. **Star center** c. Star screen d. Star window
2. Which option allows you to assign text, tables, graphics and other items to a key or key combination a. Auto format b. Automatic c. **Auto text** d. Auto graphics
3. Which menu contains the Numbering option.
   a.File b. Edit c. Tools d. **Format**
4. Which is displayed at the top most part of the window?
   a. Menu bar b. Tool bar c. **Title bar** d. Format bar
5. Which is changing the default appearance of the text called?
   a. **Text formatting** b. Page formatting c. Special formatting d. Paragraph formatting
6. The Find & Replace option is available in which menu?
   a. File b. **Edit** c. Format d. Tools
7. Which button selects all instances of the search text in the document?
   a. Find b. **Find All** c. Replace d. Replace All
8. What is the shortcut key to go to the start of the document?
   a. **Ctrl + Home** b. Ctrl + End c. Home d. End
9. What is the shortcut key for finding and replacing text in a document?
   a. Ctrl + F1 b. **Ctrl + F** c. Ctrl + F5 d. Ctrl +F7
10. What is the short cut key for Undo?
    a. Ctrl +E b. Ctrl + U c. **Ctrl + Z** d. Ctrl + n
11. Which of the following is a Word processor?
    a**. Open Office Writer** b. Open Office Calc c. Open Office Base d. Open Office Imp
12. Which of the following is word processor software?
    a. Word pro b. MSword c. WPS word **d. All fo these**
13. The shortcut key used to open a new text document is----------.
    a. Ctrl +F b. Ctrl + U c. **Ctrl + N** d. Ctrl + S
14. How many default Toolbars are there in openOffice Writer windows?
    a**. 2** b. 4 c. 3 d. 5
15. How many rulers are there in openoffice writer windows?
    a**. 2** b. 4 c. 3 d. 5
16. Which of following key combination used for paste special option?
    a**. Ctrl + Shift + V** b. Shift + Ctrl + V c. Ctrl + Alt + V d. Ctrl + E + S
17. A---------- is a Set of characters in a particular style.
    a. Highlighting b. **Font** c. Alignment d. Indenting
18. The formatting options selecting from Using
    a**.** Edit → Character b. Tools→ Character c. View → Character d. **Format → character**

19. How many of paragraph alignment in openoffice writter?

a. 3 **b. 4** c. 3 d. 5

20. The default paragraph alignment is

a. Right b. Center c. **Left** d. Justify

21. How many type of line spacing option are there in OpenOffice Writer

a. 5 b. 4 c. 3 d. **7**

22.The default linespacing is

a. **Single** b. Double c. 1.5 d. Atleast

23. The default page size in Writer is

a. 11"x 8.5" b. **8.5" x 11"** c. 8" x 11" d. 11" x 8"

24. How many ways are there to change page margins in openoffice writter?

a. **2 (Rular, Page style Dialog box)** b. 4 c. 3 d. 5

25.How many types of page Orientation in Open Office Writter?

a. **2(Portait, Lanscape)** b. 4 c. 3 d. 5

26.The shortcut key Used to get find and replace dialog is----------.

a. Alt +F b. Ctrl + F + R c. **Ctrl +F** d. Shift +F

27.Which command is Used to correct the cammon mis Spellings and typing errors automatically?

a. Format → Auto correct b. Edit → Auto Correct

c. Tools → Auto correct d. Tools → Correct spelling

28. The tab key moves the insertion point by ---------- inch.

a. 0.25 b. **0.5** c. 0.75 d. 1

29. Which is a section of the document that appears in the top margin?

a. Encoder b. Footer c. Footnote **d. Header**

30. How will you insert page number in a footer?

a. **insert → Fields → page number** b. Format → Field → page number

c. Insert → footer → Page number d. View → footer → page number

31.Match of the following

i. To more one cell of left	-	1. Ctrl + End
ii. To the beginning of line	-	2. Shift + Tab
iii. To the End of document	-	3. Tab
iv. To more one cell to right	-	4. Home

a. 2,3,4,1 b. 4,3,1,2 **c. 2,4,1,3** d. 2,4,3,1

32.Match of the following

i. To Create Worksheet	-	1. Open Office Writter
ii. To Create Document	-	2. Oppen Office Base
iii. To Create Presentation	-	3. Open Office Calc
iv. To Create Database	-	4. Open Office Impress

a. 2,3,4,1 b. 4,3,1,2 **c. 3,1,4,2** d. 2,4,3,1

SECTION-B

Short Answers

1. How do you insert pictures in to your document?

Open office Writer has the ability to insert and edit images in a more simple way.

Place the insertion pointer where you want the image to appear

* Select Insert→ Picture → From file

*The insert picture dialog box appears where the picture gallery opens from which the desired picture can be selected.

* If the picture is not in the gallery, then browse the pictures from the folder, choose the desired one and Click on the Open button
* The selected picture is inserted into the document

2. What is Hyperlinks?

Hyperlink is a reference to data that the reduce can directly follow either by clicking or or topping. A hyperling points to a whole document or to a specifc element within a document.

3. What are the different packages in OpenOffice?

OpenOffice is a productive office suite with a collection of different software packages such as

OpenOffice Writer	- Word Processor to create text documents
OpenOffice Calc	- Spreadsheet to createworksheets
OpenOffice Base	- Database
OpenOffice Impress	- Presentation software
OpenOffice Draw	- Drawing Software
OpenOffice Formula	- Create formula and equations

4. What is auto text in writer?

AutoText allows you to assign text, tables, graphics and other items to a key or key combination. For example, rather than typing "TamilNadu" every time you use that phrase, you might just type "tn" and press F3.

4. How do you merge cells in a table?

To merge a group of cells:

* Select the cells to merge.
* Right click and choose Cell →Merge or

*Choose Table →Merge Cells from the menu bar.

5. State the difference between proprietary software and open source software?

Proprietary software		Open source software	
Package	**Developer**	**Package**	**Developer**
Microsoft Word	Microsoft Corporation	OpenOffice Writer	Apache
WPS Word	Kingsoft	LibreOffice Writer	The document foundation
WordPro	Lotus Corporation	Abiword	Abisource

6. What is the use of Word Art in Writer?

Word Art helps to apply special effects and change the apperence of the text to make it more presentable and attractive.

7. What is word processing?

Word processing is an active carried out by a computer with suitable software to create, edit, manipulate, transmit, store and retrive text document.

8. How will you open a text document in Open Office wirter?

A New text document can also be created by selecting File → New → Text document from any Open Office Application. Ctrl + N keyboard short cut can also be used to open a new text document.

9. Name the types of tools bars available in Open Office Writer.

There are two toolbars available by default. They are:

- → Stantard Toolbae
- → Formatting Toolbar

10. What is Rular?

The Rular is a scale show the formatting toolbar which shows the margins. There are two set of rulars (i) Horizonal Rular (ii) Vertical Rular.

(i) Horizonal Rular is Used to set left and right margin.

(ii)Vertical Rular is for top and bottom setting.

11. What is Insertion Pointer?

A flashing vertical ba appears at the beginning if the screen which is called as" Insertion Pointer".

12. What is Word Wrap?

When the text reaches the end of the line, the word is Autometically wrapped to the next line. This feature is any word processor is known as " Word Wrap".

13. Differentiate Backspace and Delete key:

Backspace	Delete
Delete the character Left of the insertion pointer	Delete the character Right of the insertion pointer

14. Differenciate paste and paste special:

Paste	Paste special
Paste is a feature that lets a user cut or copy iterms from cellsand transfer them to another completely.	Paste special allwos the items being transferred to be formatted in several different ways. Paste special is a feature found is software like microsoft word, Microsoft Excel and Open Office.

15. What is Text Formatting?

Changing the default apperence of the text like changing the font type, size, color, style, etc, are called as Text formatting.

16. What is Page Formatting?

Formatting the page with elements such as margins, Numbering, page layout, headers, and Footers are called page formatting.

17. Write a note on Auto spell icon.

Auto spell check option checks each word as it is typed and displays a wavy red line under any misspelled words. Once the word is corrected, the red wavy line disappears. This can be done through clicking the icon.

SECTION-C

Explain in Brief

1. What is the difference between moving and copying text?

Moving text	Copying text
To move a text from one location to another Select the text to be moved Click Ctrl + X or Cut Icon or Edit →Cut The text is removed from the source location and placed in the clipboard Take the insertion pointer to the new location to be moved	To copy a text from one location to another select the text to be copied Click Ctrl + C or Copy Icon or Edit →Copy A plicate copy of the text is made and send to the clipboard Take the insertion pointer to the new location to be copied.

2. What are the different types of orientation?

There are two different orientations:

Landscape – The width of the document is more than the height. This is best suited for displaying professional photos, invitations, albums, tables etc.

Portrait – This is the most common and default orientation . Here, the height of the document is more than the width. Normally books, newspapers will be displayed in this format.

3. How do you insert rows and columns?

* Place the insertion pointer in the row or in the column where you would like to add new rows or columns and rightclick.

* Choose Row→Insert – to insert a row or Column → Insert – to insert a column.

A dialog box will appear, from which you can select the number of rows or columns to insert. You can also set the position of the new rows or columns to Before or After

4. What are the different ways to save a document?

* You can save by clicking File→ Save on top left corner and then click File→Save As or Ctrl+Shift+S . After that browse the location where exactly you want to save in your computer.

* You can also save by just pressing Ctrl + S and then browse the location where you want to save.

* All documents in OpenOffice writer will be stored with .odt extension. You can store your OpenOffice document as Microsoft Word document or pdf.

5. Write the steps to change the line spacing of text.

Rightclick→ line spacing, select the type single, 1.5 or double.

Select the entire document by Edit → Select All

* Format→ paragraph

* The paragraph dialog box appears, click Indents & Spacing tab

* In the line spacing option, select the type and click OK button.

6. Define Highlighting.

Highlighting is Used to draw attention to important information in a text. Hightlighting is beneficial becouse it first asks the reader to pick out the important parts, and then gives and effective way to review that information later.

SECTION - D

Explain in detail

1. What are the different methods to change margin in writer?

Page margins are the white space around the top, bottom, left, and right of your document. Changing or setting page margins in Openoffice writer can be done in two ways:

* Using the**Rulers** - quick and easy, but does not have precise values.
* Using the**Page Style dialog box** – can specify precise values for the margins. **Changing page margins - using Ruler**
* The shaded sections of the rulers are the margins.
* Hold the mouse pointer over the line between the gray and white sections.
* The mouse pointer turns into a double headed arrow.
* Hold down the left mouse button and drag the mouse to move the margin and release it at the required point.
* The new margin is set.

Using the Page Style dialog box

To change margins using the Page Style dialog box

* **Right-click** anywhere on the page and select Page from the popup menu and select **page tab** of **page style dialog box**.
* In the**Margins** boxes, specify the values for left , right , top and bottom margins.
* Click on ok button.

2. What are Header and Footer? How do you insert page numbers?

The **header** is a section of the document that appears in the **top margin**, which displays the title or chapter name , author name of a document.

* Select from the main menu **Insert →Header →Default**
* The header text area is separated from the normal text area.
* In the header area, Enter the text that is to be repeated in all pages or Select **Insert →Fields →Title.**

The **footer** is a section of the document that appears in the **bottom margin** of the page which displays the page number, date, time etc. which gets displayed on all the pages automatically.

* Select from the main menu **Insert → Footer → Default**
* Place the insertion pointer in the footer part of the page**.**
* Select**Insert →Fields→Date** to insert date in all the pages.

Inserting and Formatting page numbers

The page numbers can be inserted by performing the following steps:

* Position the insertion pointer where you want to insert the page number

*choose **Insert → Fields →Page Number**

* The page number appears with a gray background

Normally, the page numbers appear as 1,2,3….., To change the numbering style, the following sequence of steps can be performed:

* Position the cursor where the page number has to appear
* Select **Format → page,** which will bring the page style dialog box as on Figure 6.29.
* Select**page** Tab
- In the Layout settings, select the format drop down combo box
- Select the desired style and click**OK** button.

3. Write the steps to Find and Replace a word with another word in OpenOffice writer?

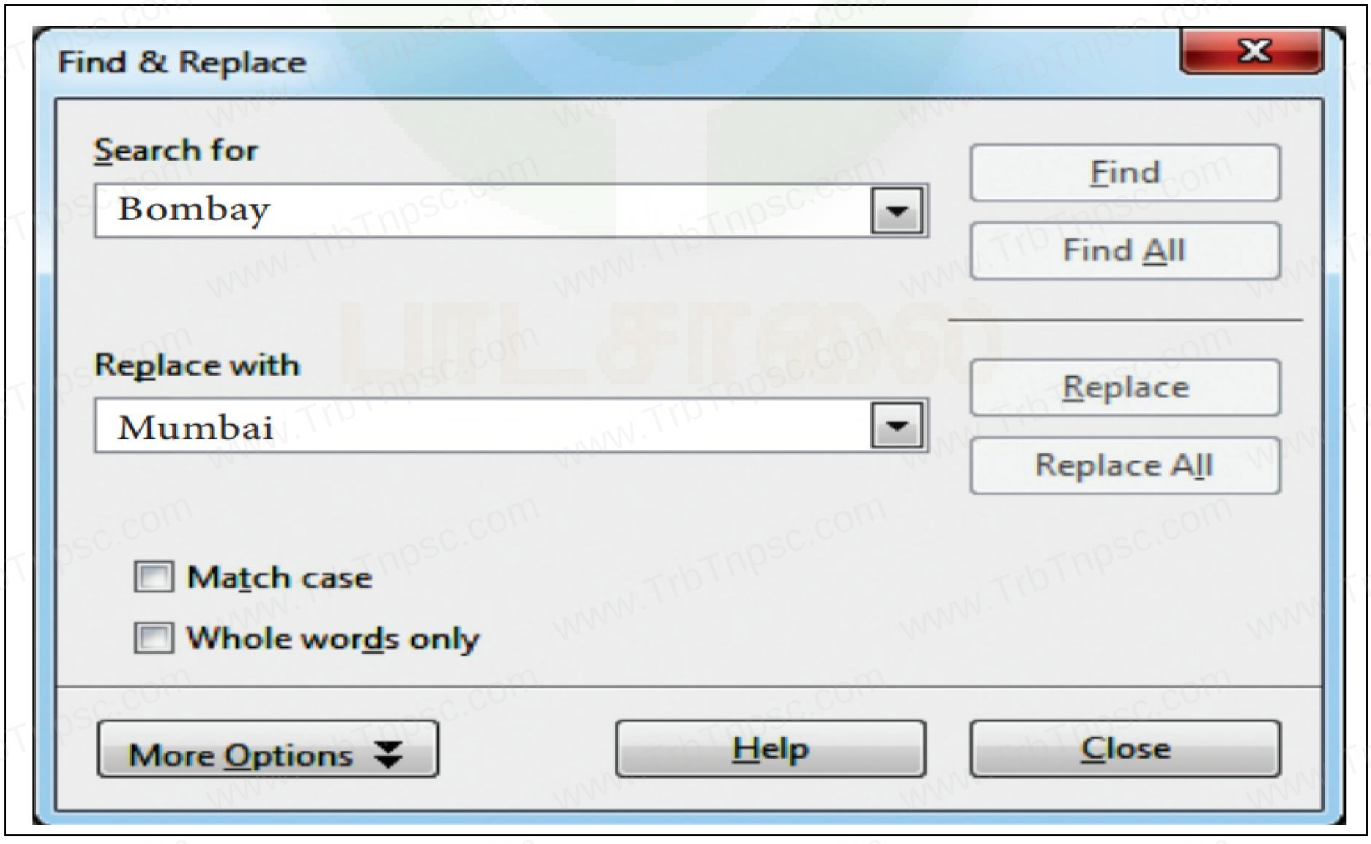
OpenOffice Writer has a Find and Replace feature that helps to locate for a text inside a document and replace it with another word.

- Click**Edit → Find & Replace** (or) **Ctrl + F**

Steps to find & replace a text

* Type the text you want to find in the **Search for** box

For Example :



To search a word "Bombay" in a document and replace with "Mumbai", enter the word "Bombay" in the **Search for** box.

* To replace the text with different text, type the new text in the **Replace with** box Enter the word " Mumbai" in the **Replace with** box and Click **Find** button , to start the search , the found word is highlighted and the first occurrence of "Bombay" is highlighted.
* To replace text, click**Replace** button.
  The highlighted word is replaced with the word given in the Replace with box.
* Click**Find All,** Writer selects all instances of the search text in the document .
  All occurrences of Bombay are highlighted.
* Click**Replace All** button, Writer replaces all matches.
  This will replace all occurrences of "Bombay" with "Mumbai".
* Enable **Match case** to perform the search case sensitively so that uppercase and lower cases are distinguished separately.
* Enable**Whole Words only** to make the search more specific to words used separately alone.

4. Explain Page formatting in writer.

Page formatting

The most important thing in a word processor is how to format the page with elements such as margins, numbering, page layout, headers and footers. Formatting your pages makes them look more attractive and makes them easier to read.

Changing page size

The default page size in writer is 8.5 x 11", the same as that of a standard A4 printing paper. However, for different types of documents, you may need to change the page size. To change the paper size:

- Select the page whose page size is to be changed
- Select**Format → Page**, the page style dialog box
- Select**Page** Tab
- In the**paper format group,** select the format like A4, legal ….
- Or the**width** and **height** option can be used to set the page size.

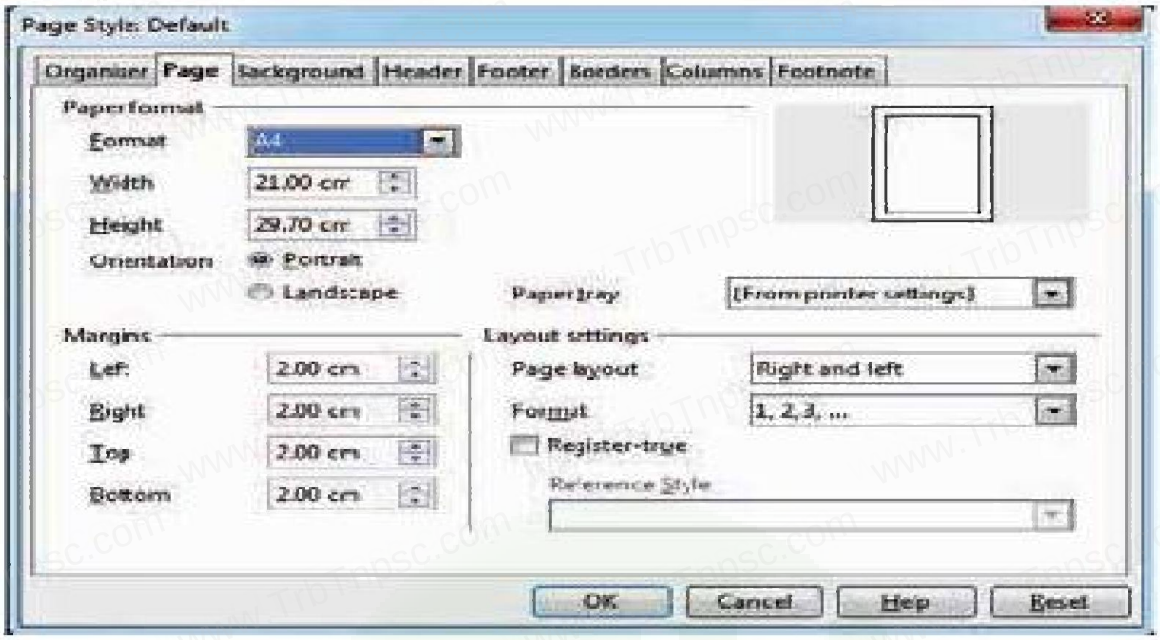


Figure 6.26 Page style dialog box

Changing Page margins

*Page margins are the white space around the top, bottom, left, and right of your document.

*Margins let Writer know where to start placing the text at the top of a document, when to move on to the next page at the bottom, where to start typing text on the left side, and where to stop and move to the next line on the right.

Changing or setting page margins in Openoffice writer can be done in two ways:

* Using the**Rulers** - quick and easy, but does not have precise values.
* Using the**Page Style dialog box** – can specify precise values for the margins.

Orientation

Page orientation refers to how the document will be displayed on screen and printed. There are two different orientations:

Landscape - The width of the document is more than the height. This is best suited for displaying professional photos, invitations, albums, tables etc.

Portrait – This is the most common and default orientation. Here, the height of the document is more than the width. Normally books, newspapers will be displayed in this format.

Page colour

Changing the page color is not quite common. To do so, in the Page style dialog box, select Background tab, In As option click on color and select the "color" from the color palette or select "graphic" to apply an image as a page background.

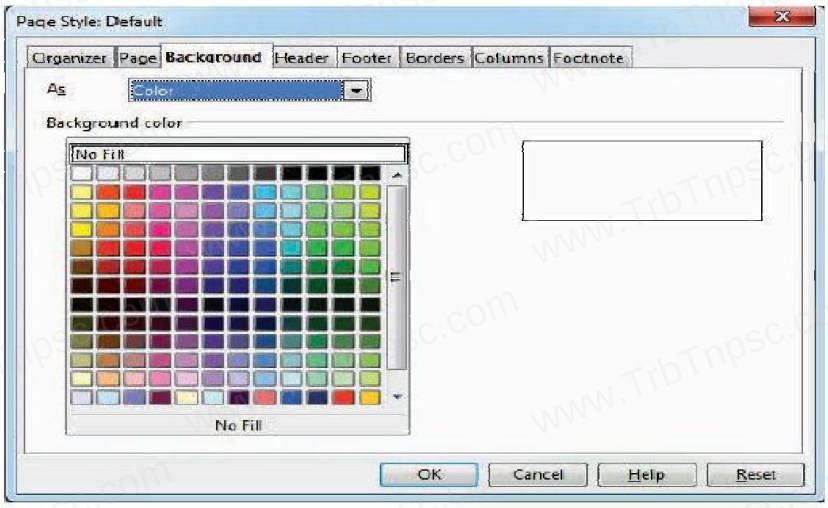


Figure 6.27 Background color

Borders

Borders can be applied to an entire document, an entire page, paragraph, or just to certain sections of the document. From the page style dialog box, select the Border tab, the user defined area helps to define the area of borders, the line style of borders, color of borders can be selected.

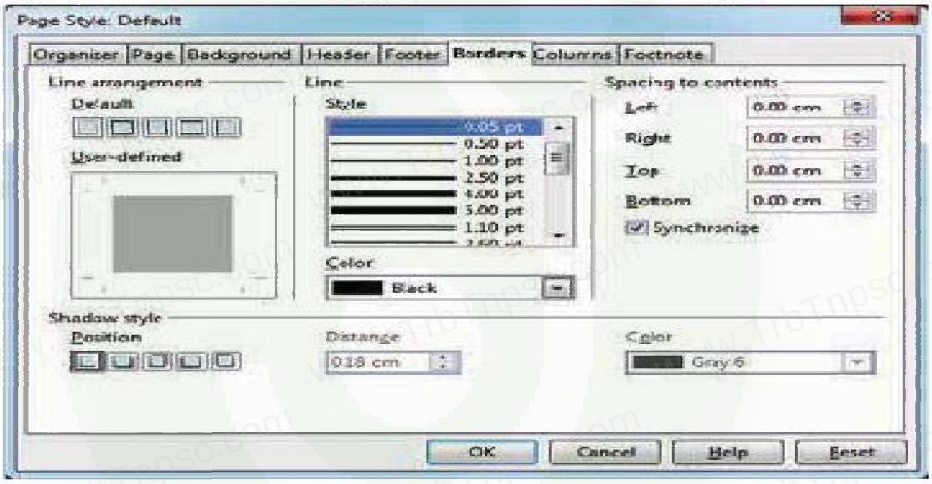


Figure 6.28 Page style dialog box - Borders

5. Explain the Four types of paragraph alignment.

Paragraph alignment or justification refers to the way in which the lines of a paragraph are aligned.Paragraph alignment lets you control the appearance of individual paragraph alignment. There are four types of alignment in Open office Writer – left alignment, Right Alignment, Center Alignment, Justiy Alaignment.

Left Alignment: A pharagraph's Text is left s ligned when it is aligned evenly along the left margin. This is the default alignment which occurs by default when a paragraph is typed.

Rright Alignment : A paragraph's text is Right align when it is aligned evenly along the right margin.

Center Alignment: All the line in the paragraph are aligned alone the same imaginary vertical line at the center of the text area between the margin.

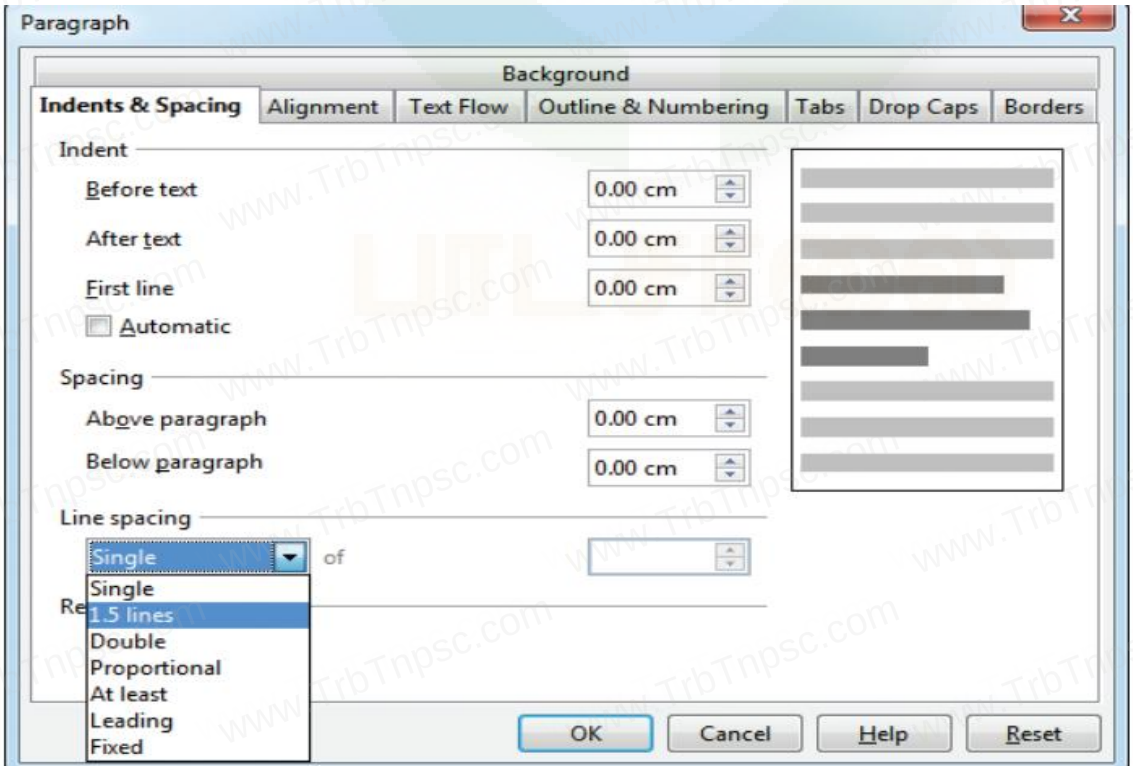
Justified-alignment: All the lines in the paragraphy, are arranged evenly both on the left and right margins. This is achieved in writer by automatically inserting additional space between the words.

ALIGNMENT	ACTION	ICON	SHORT CUT KEY
LEFT	Aligns the paragraph with respect to the left margin		Ctrl + L
RIGHT	Aligns the paragraph with respect to the right margin		Ctrl + R
CENTER	Aligns the paragraph with respect to the center of the page		Ctrl + E
JUSTIFIED	Aligns the paragraph with respect to both the left and right margin		Ctrl + J

6. Explain the types of indenting the text.

Line spacing determines the amount ofvertical spacebetween lines of text in a paragraph. By default, the lines are single-spaced, that is the spacing accommodates the largest font in that line, plus a small amount of extra space. In Open Office, setting line spacing is quite easy through the context menu, select the line or word or phrase, rightclick →line spacing, select the type single, 1.5 or double. There are seven different types of line spacing as seen in the dialog box given below in Fig.6.23.

- Select the entire document by Edit →Select All
- Format →paragraph
- The paragraph dialog box appears, click Indents & Spacing tab
- In the line spacing option, select the type and click OKbutton.



Left indent- The Left indent controls the space between the paragraph and the left margin. This is the default indent. Each click on the Increase indent icon moves the paragraph ½ inch away from the left margin. The left indent can also be applied by Format →Paragraph →Indents& Spacing tab, enter a value in the "before text" spin box. This results in a left indent.

Right Indent- The Right indent controls the space between the paragraph and the right margin. Each click on the decrease indent icon removes the indent applied by the Increase indent. The Right indent can be applied by the dialog box method.

This indent can be applied by Format →Paragraph →Indents & Spacing tab, select first line option in the Indent group, enter a positivevalue which results in first line indent

Hanging indent -This is a special kind of indent where the first line of the paragraph alone hangs outside leaving the rest of the text. To apply Hanging indent, a negativevalue is given in the "first line" option of the paragraph dialog box.

7. Explain how will the create and remove bullets and numbering in writer.

Bullets and numbering are used to emphasize list of things and make list easy to read and follow. It provides an excellent way to segregate, list and organize information for a reader. You can control

the appearance, or format a bulleted or numbered list.

Bullets– This is a paragraph level attribute that applies a bullet character to the start of the paragraph. In bulleted lists, each paragraph begins with a bullet character. This is suitable when the text has to be presented as a list of items preceded by a bullet symbol and no sequence has to be followed. Bullets are quickly created by clicking on the bullet icon

Numbering– This attribute applies a numeral to the start of the paragraph. Numbering is more suitable when the text has to be presented as a sequence. In numbered list, each paragraph begins with an expression that includes a number or letter and a separator such as a period or parenthesis. The numbers in a numbered list are updated automatically when you add or remove paragraphs in the list. Numbering is quickly created by clicking on the numbering icon.

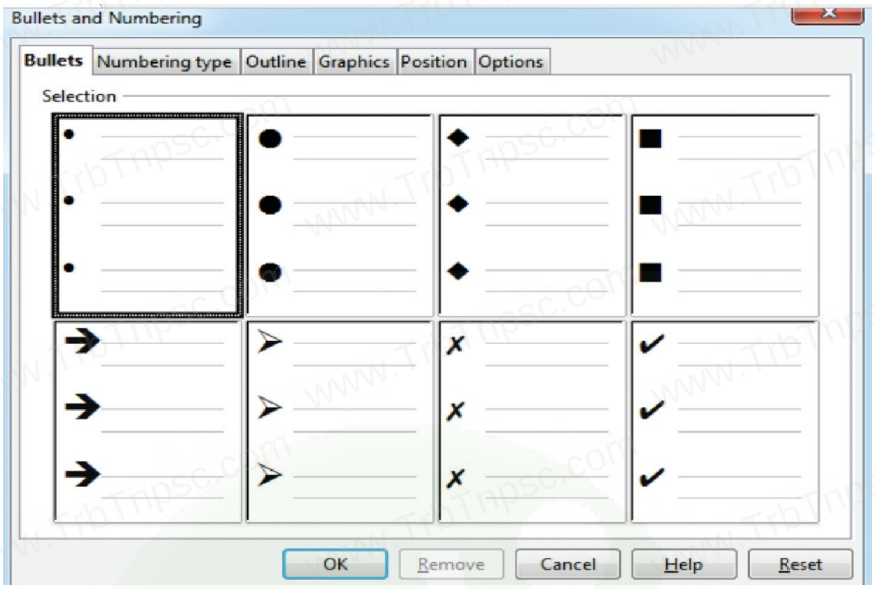
To apply Numbering

The default type of bullet is (.) and the default type of numbering is (1, 2, 3 ……). The style of bullets and numbering can be changed by applying the following

steps:

- *Select the text to be bulleted*
- *Format →Bullets and Numbering*
- *Select Bullets Tab*
- *The Bullets and Numbering dialog box appears where different styles of bullets are displayed*

- *Click on the required style*
- *Click Ok button*
- *The selected text is bulleted.*



Turning off Bullets and Numbering

As you can quickly add bullets or numbers to existing text by clicking on the icons, the bullets and numbers can be removed easily.

- Select the text where the bullets and numbers are to be removed.
- Click on the bullets icon again to remove bullets.
- Click on the numbering icon again to remove numbering.

COMPUTER APPLICATIONS
7.WORKING WITH OPEN OFFICE CALC
SECTION – A

Choose the correct answer

1. Which is the first electronic spreadsheet?
   (A)Excel (B) Lotus 1-2-3 (C) **Visicalc** (D) OpenOffice Calc
2. Which of the following applications was the parent to OpenOffice Calc?
   (A)Visicalc (B) LibreCalc (C) Lotus 123 (D) **StarOffice Calc**
3. Grid of cells with a programmable calculator:
   (A)**Spreadsheet** (B) Database (C) Word processor (D) Linux
4. A column heading in Calc is represented using
   (A)Number (B) Symbol (C) Date (D) **Alphabet**
5. Which key is used to move the cell pointer in the forward direction within the worksheet?
   (A)Enter (B) **Tab** (C) Shift + Tab (D) Delete
6. A formula in calc may begin with
   (A) = (B) + (C) - (D) **All the above**
7. What will be the result from the following formula (Assume A1=5, B2=2)? + A1^B2
   (A) 7 (B) **25** (C) 10 (D) 52
8. What will be the result from the following expression (Assume H1=12, H2=12)? = H1<>H2
   (A) True (B) **False** (C) 24 (D) 1212
9. Which of the following symbol is used to make a cell address as an absolute reference?
   (A) + (B) % (C) & (D) **$**
10. Which of the following key combinations is used to increase the width of the current column?
    (A)**Alt + Right arrow** (B) Ctrl + Right arrow
    (C)Alt + Left arrow (D) Ctrl + Left arrow
11. Which of the following is very useful automation tool for accounding purpose?
    (A) Word processor (B) **Spread sheet** (C) Data Base (D) Presentation
12. Which spread sheet software impement GUI?
    (A) Lotus 1-2-3 (B) Visicalc (C) **Ms Excel** (D) All of these
13. Ms – Excel introduced in the year
    (A) 1982 (B) 1985 (C) 1979 (D) **1987**
14. Lotus 1-2-3 Indroduced in the year
    (A) 1982 (B) **1985** (C) 1979 (D) 1987

15. The first electronic Worksheet develeoped by

(A) Daniel Bricklin (B) Bob Frankston (C)William outhtred (D) **a and b**

16. Who refered as " The father of the spread sheet"?

(A) **Daniel Bricklin** (B) Bob Frankston (C) William outhtred (D) Dennis Ritchie

17. The default name for the first Unsaved worksheet is ----------.

(A) **Untitle 1** (B) Sheet 1 (C) Table 1 (D) Document

18. In which toolbar the function wizard icon is available?

(A) Standard (B) Formatting (C) **Formula** (D) Object

19. Spreadsheet window has ---------- sets of scroll bars?

(A) 3 (B) 4 (C) **2** (D) none

20. How many columns are there in Open Office Calc Version 4.1.4?

(A) 256 (B) 16387 (C) 512 (D) **1024**

21. How many columns are there in Open Office Calc Version 4.1.4?

(A) **1048576** (B) 16387 (C) 548526 (D) 1024

22. How many columns are there in MS – Excel 2016?

(A) 256 (B) **16384** (C) 512 (D) 1024

23. Which key is used to move the cell pointer forward direction?

(A) **Tab** (B) Shift + Tab (C) Enter (D) Ctrl + Tab

24. Which key is used to move the cell pointer backward direction?

(A) Tab (B) **Shift + Tab** (C) Enter (D) Ctrl + Tab

25. By default in which side the characters are aligned in worksheet?

(A) left (B) **Right** (C) Center (D) Justify

26. By default in which side the number are aligned in worksheet?

(A) **left** (B) Right (C) Center (D) Justify

27. American Date Format

(A) **MM/DD/YY** (B) MM/DD/YYYY (C) DD/MM/YY (D) DD/MM/YYYY

28. A Continuous group of cells is called as

(A) Address (B) **Range** (C) Pointer (D) Reference

29. The extension of Openoffice calc is

(A) **.ods** (B) .opc (C) .xls (D) .oot

30.Which menu consists cut, copy and paste option?

(A) File (B) **Edit** (C) Tools (D) Format

31. To Genereate the series 2,4,8,16,…….2048, Select the series type is

(A) linear (B) **Growth** (C) Autofill (D) All these

32. How many functions are there Open Office Calc

(A) **More then 350** (B) Less than 350 (C) More than 450 (D) 350

SECTION-B

Short Answers

1. What are the types of toolbars available in OpenOffice calc?

There are three toolbars available by default. They are:

* Standard Toolbar * Formatting Toolbar * Formula bar

2. What is a Cell pointer?

Cell pointer is a rectangle box which can be moved around the worksheet. The cell in which the cell pointer is currently located is known as "Active cell". When you type any content, it will appear in the active cell.

3.Write about the text operator in OpenOffice Calc.

In Calc, "&" is a text operator which is used to combine two or more text. Joining two different texts is also known as "Text Concatenation" An expression using the text operator has the following syntax: text reference1 & text reference2

4. Write the general syntax of constructing a formula in Calc.

General Syntax of constructing a formula is:

= cell reference1 <operator> cell reference2 <operator> …….

5. What are the keyboard shortcuts to cut, copy and paste?

Ctrl + X is used to cut the cell

Ctrl + C is used to copy the cell

Ctrl + V is used to paste the cell

6. Can you edit the contents of a cell? If yes, explain any one of the method of editing the cell content.

Yes, we can edit the contents of a cell.

* Using keyboard, after selecting the cell, Press the F2 key and the cursor is placed at the end of the cell. The use the keyboard arrow keys to move the cursor through the text in the cell.

7. What are the options available in "Insert Cells" dialog box?

There are four options available in Insert cells

* Shift cells down
* Shift cells right
* Entire row
* Entire Column

8. Match the following

Sl.No	A	B
1	Cut, Copy, Paste	Standard Toolbar
2	Cell Pointer	Active Cell
3	Selection Mode	Status Bar
4	A5	Absolute Cell

9. Define the following (i) Text Operator (ii) Rows and Columns of spreadsheet

Operator

Text Operator

In Calc, "&" is a text operator which is used to combine two or more text. Joining two different texts is also known as "Text Concatenation" An expression using the text operator has the following syntax: text reference1 & text reference2

Rows and Columns of spreadsheet

*A row is a horizontal group of values within a table. It contains values for multiple fields, which are defined by columns. The rows are numbered from 1, 2, 3…. OpenOffice Calc version 4.1.5 contains 10,48,576 rows.

*A column is a vertical group of values within a table. It contains values from a single field in multiple rows. Each column is labelled as A, B, C, D ….. AA, AB, AC …..It contains 1024 columns.

10. Differentiate between Copy -Paste and Cut-Paste

Copy -Paste	Cut-Paste
Select the cell or group of cells you want to copy, then using Select Edit→ Copy or Click "Copy" icon from the standard toolbar or Press Ctrl + C Copy leaves the cell information in its original location and makes copy of the cell information when pasted it Move the cell pointer to the cell in which you want to paste.Edit → Paste or Click "Paste" icon or Press Ctrl + V	Select the cell or group of cells you want to cut, then using Edit→ Cut or Click "Cut" icon from the standard toolbar or Press Ctrl + X But in Moving it removes the information and pastes it in another location Move the cell pointer to the cell in which you want to paste. Edit → Paste or Click "Paste"

SECTION-C

Explain in Brief

1. Write a short note on OpenOffice Calc.

* OpenOffice Calc is a popular open source spreadsheet application maintained by Apache Foundation.

* StarOffice calc was the parent application of OpenOffice Calc which was developed by a German Company namely, Star Division in 1985.

* Calc is the spreadsheet component of OpenOffice. You can enter any kind of data in a spreadsheet and then manipulate this data to produce certain results.

2. Write about inserting columns and rows in Calc.

Inserting Rows - In Calc, we can insert a new row anywhere in the worksheet.

Step 1: Select the row where a new row to be inserted.

Step 2: Right-click on the row number, a pop-up menu appears

Step 3: click "Insert Rows" option from the menu.

Now, a new row will be inserted to above the current row. Insert →Rows command is used to insert

a new row.

Inserting a Column - In Calc, we can insert a new column anywhere in the worksheet.

Step 1: Select the column where a new column should be inserted.

Step 2: Right-click on the selected column name that you selected. A pop-up menu appears.

Step 3: click the "Insert Columns" option from the menu.

Now, a new column will be inserted to the left of the current column.

A new column can also be inserted using Insert → Columns command.

3. Differentiate Deleting data using Backspace and Delete

Backspace	**Delete**
Backspace key is used to delete the character left of the insertion pointer of the cell	Delete key is used to delete the character right of the insertion pointer of the cell

4. Write any three formatting options.

Formatting Option	Keyboard Shortcut	Description
Bold	Ctrl + B	Used to make the data as **Bold**
Italic	Ctrl + I	Used to *Italicize* data
Underline	Ctrl + U	Used to underline the data

5. In cell A1=34 A2=65 A3=89 write the formula to find the average.

To find the average, using anyone of the following way:

i.= AVERAGE (A1:A3) = 62.7%

SECTION - D

1. Explain about changing the column width in Calc.

Resize the width of a column using the mouse

Use the right hand border to increase or decrease the width of a column.

? Position the cursor on the right hand border of the column letter box, until you see a double headed arrow.

? Hold down the left hand mouse button and drag the border to the left or right to make the column narrower or wider as required.

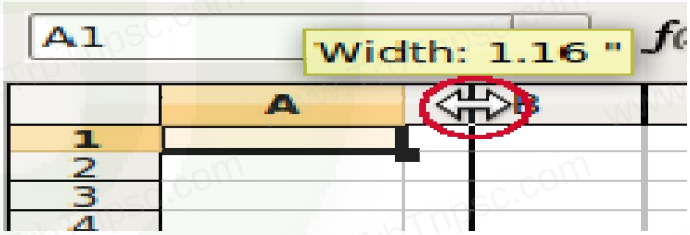
As you carry out this action, the width of the column displays. Using the mouse to widen a column

Resize one or more columns using Format

* Select the column(s) whose width you wish to change

* Select **Format → Column → Width...**

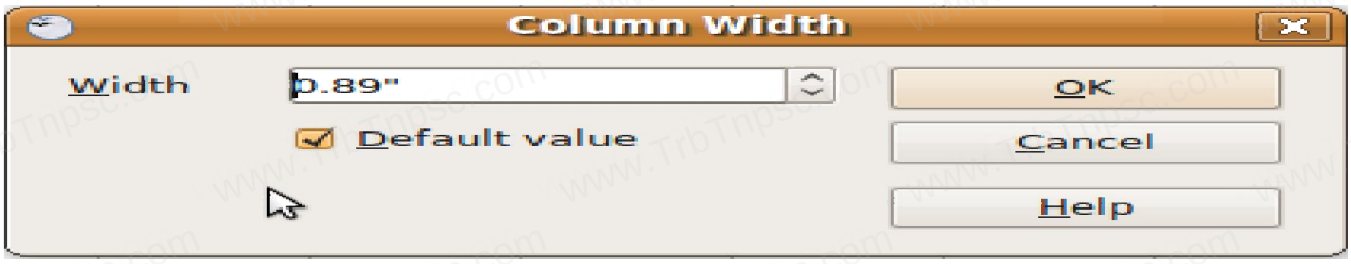
* The Column Width dialog displays



* Enter a value in the Width window or check the Default value check box to select the default column width.

* Click OK.

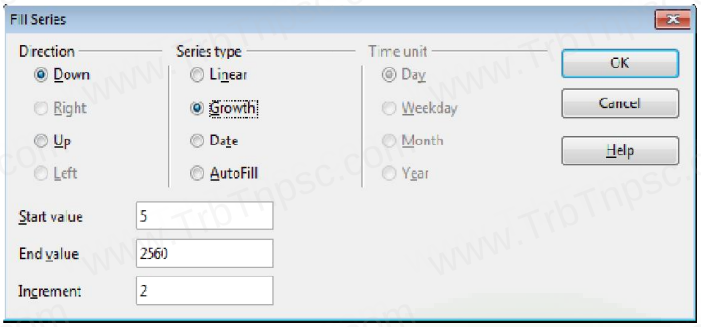
The selected columns display with the new width.



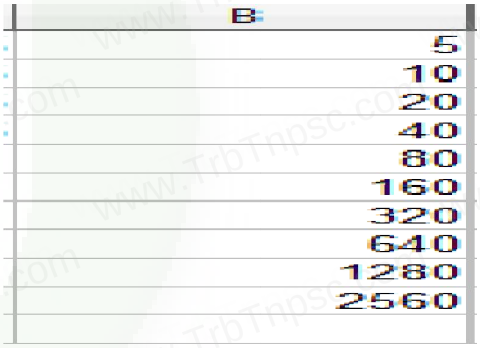
2. Write the steps to generate the following series. 5, 10, 20 ….. 2560

STEPS TO GENERATE THE SERIES 5,10,20,…2560

1. Select the required number of cells to generate the series.
2. Click EDIT→ FILL, the Fill Series dialog box appears as shown below,



3. Select the Direction as **Down** in fill series dialog box.
4. Select the Series type **Growth**.
5. Initial value of the series 5 should be typed in Start Value box.
6. Maximum value of the series 2560 should be typed in End Value box.
7. The value 2 should be typed in Increment box .
8. Click OK. Now the series is generated as given below,



3. Read the following table

	A	B	C	D	E
1	Year	Chennai	Madurai	Tiruchi	Coimbatore
2	2012	1500	1250	1000	500
3	2013	1600	1000	950	350
4	2014	1900	1320	750	300
5	2015	1850	1415	820	200
6	2016	1950	1240	920	250

Above table shows the sales figures for "Air Cooler" sold in four major cities of TamilNadu from the year 2012 to 2016. Based on this data, write the formula to calculate the following.

(1) Total sales in the year 2015.

(2) Total sales in Coimbatore from 2012 to 2016.

(3) Total sales in Madurai and Tiruchi during 2015 and 2016.

(4) Average sales in Chennai from 2012 to 2016

(5) In 2016, how many "Air Coolers" are sold in Chennai compared to Coimbatore?

ANSWER:

SL.NO	QUESTION	FORMULA	ANSWER
1	Total sales in the year 2015.	=SUM(B5:E5)	4285
2	Total sales in Coimbatore from 2012 to 216	=SUM(E2:E6)	1600
3	Total sales in Madurai and Tiruchi during 2015 and 2016.	=SUM(C5:D6)	4395
4	Average sales in Chennai from 2012 to 2016	=AVERAGE(B2:B6)	1760
5	In 2016, how many "Air Coolers" are sold in Chennai compared to Coimbatore?	=B6–E6	1700

COMPUTER APPLICATIONS
8. PRESENTATION BASICS
SECTION – A Choose

THE CORRECT ANSWER

1. Which is used to move quickly from one slide to another?

A) Compass B) **Navigator** C) Fill color D) Page border

2. Which is the shortcut key to view the slideshow?

A) F6 B) F9 C) F5 D) **Both (b) or (c)**

3. In Impress, which views shows thumbnail versions of all your slides arranged in horizontal rows.

A) Notes B) Outline C) Handout D) **Slide Sorter**

4. Identify the default view in Impress.

A) **Normal** B) Slide Sorter C) Handout D) Notes

5. Which menu contains the Slide Transition option?

A) **Slide Show** B) View C) Tools D) Format

6. Identify the extension of the Impress presentation.

A) **.odp** B) .ppt C) .odb d. ,ood

7. In presentation tools, the entry effect as one slide replaces another slide in a slide show. Identify the option that suits after reading the statement.

A) Animation B) **Slide Transition** C) Custom animation D) Rehearse Timing

8. Vanya has made a presentation on "Global Warming". She wants to progress her slide show automatically while speaks on the topic in the class. Which features of Impress would she use?

A) Custom Animation B) **Rehearse Timing**

C) Slide Transition D) Either (a) or (b).

SECTION-B

Short Answers

1. What is the difference between a slide and a slide show?

Slide	Slide Show
A slide is an editable format that contains different element like text, tables, charts, clipart etc.	A slide show is a combination of a number of slides that run one after the other.

2. How many in-built slide layouts does impress consist of?

In-built the open office impress consist of 12 different layout of slides.

3. What do you understand by a presentation?

A **presentation** program is a software package used to display information in the form of a slide show. It has three major functions: an editor that allows text to be inserted and formatted, a method for inserting and manipulating graphic images, and a slide-show system to display the content.

4. Define a template in Impress.

A template is a premade design you can use to lend cohesiveness, visual organization and appeal to your presentation. Even though individual slides can have different layouts and graphics, templates help the whole presentation go together as an attractive package.

5. What do you understand by the slide layout?

Slide layouts are pre-packaged layouts which contain formatting, positioning, and placeholders for all of the content that appears on a slide.

Placeholders are the containers in layouts that hold such content as text ,tables, charts, SmartArt graphics, movies, sounds, pictures, and clip art.

SECTION-C

Explain in Brief

1. How many types of views are provided by Impress to its users?

There are 5 types of views are provided by Impress. They are

Normal view - Normal view is the main view for creating individual slides.

Outline view - Outline view shows topic titles, bulleted lists and numbered lists for each slide in outline format.

Notes view- Notes view lets you add notes to each slide that are not seen when the presentation is shown.

Slide Sorter view - Slide Sorter view shows a thumbnail of each slide in order.

Handout view - Handout view lets you print your slides for a handout.

2. Who uses the presentation software and why?

Businesses and professional firms use presentations to inform, educate, motivate and persuade internal and external audiences.

They build presentations into sales, training and internal communication programs, using the power of words and images to engage their audience and retain attention. Presentation software is used to create presentations, quizzes, e-learning packages and multimedia products.

3. Define the Slide Sorter view and its significance.

The Slide Sorter view contains all of the slide thumbnails.

Use Slide Sorter view to work with a group of slides or with only one slide.

Use Slide Sorter view to reorganize, insert, delete and copy the slides, produce a timed slide show or add transitions between selected slides.

4. What is a Normal view? Explain.

*Normal view is the main view for creating individual slides.

*Use this view to format and design slides and to add text, graphics and animation effects.

* There are two ways to place a slide in the Slide Design area of the Normal view: clicking the slide thumbnail in the Slides pane or using the Navigator.

5. How are transition effects helpful in creating an effective presentation in Impress?

Slide transitions are the effects that occur when you move from one slide to the next during a presentation.

You can control the speed, add sound, and customize the properties using the transition effects.

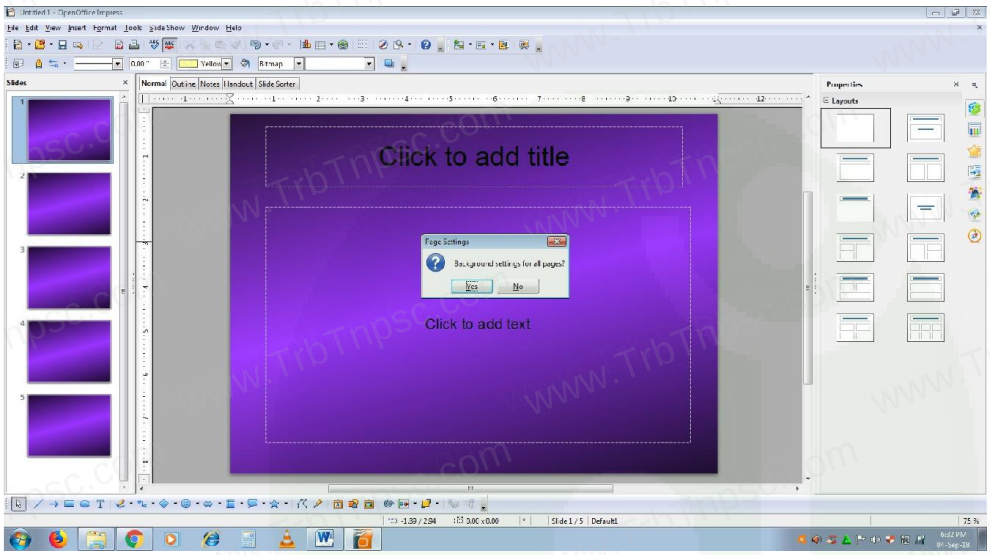
You can also choose between an automatic or manual transition.

SECTION – D

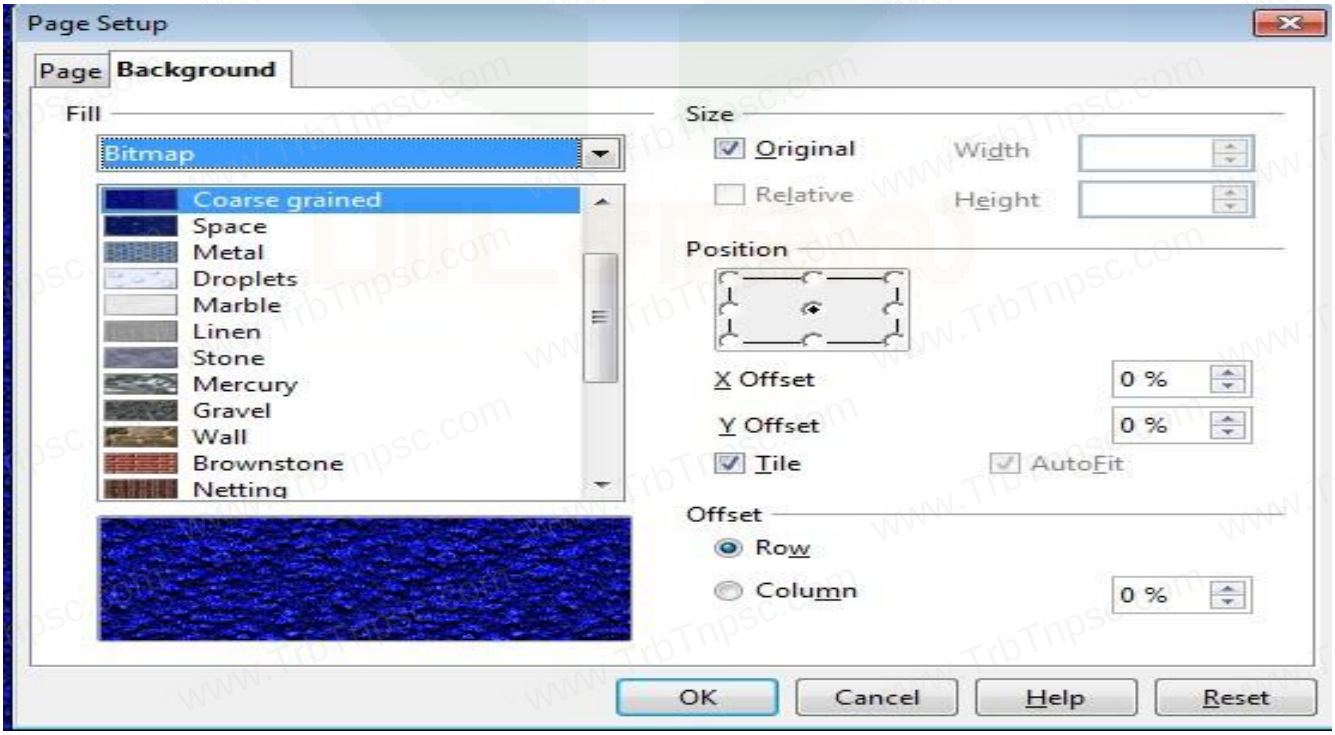
1. Valarmathi's teacher asks her to create a presentation in OpenOffice Impress. As Valarmathi has never worked in Impress before, help her to perform the following tasks:

a. She wants that except for the first slide, all the slides should have the same design. For this, what does she need to do?

*Create the presentation with same design for all slides using master page option, by clicking YES in Page Setting dialog box



*Click the Master slide and choose Format □ Page menu. The Page setup dialog box appears on the screen.

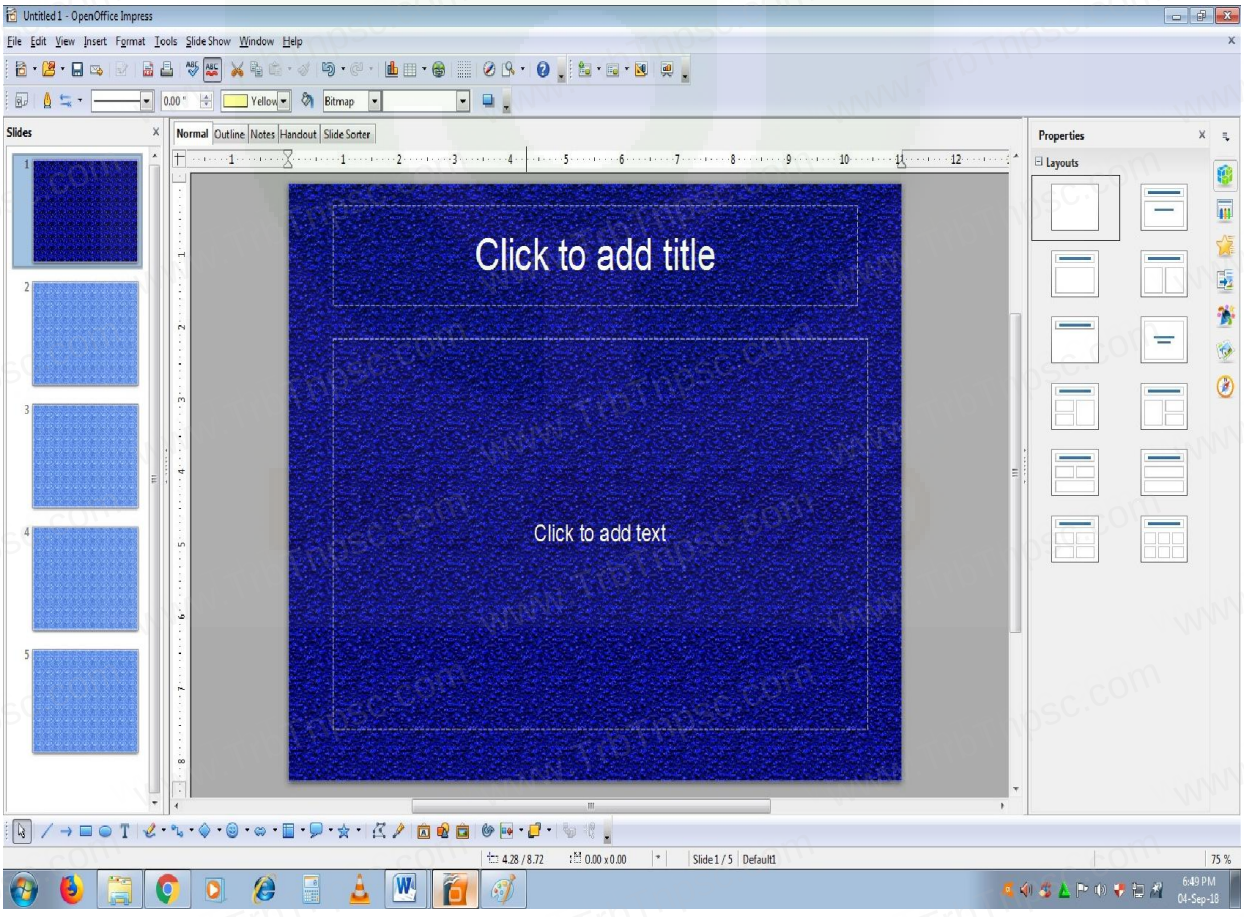


*Click Background and choose any one of the Fill option (Colour, Gradient, Bitmap, Hatching) for changing the background of the master slide.

*The Page Setting dialog box appears on the screen,

* Click NO in the Page Setting dialog box.

* Now you can see the changes except for the first slide, all the slides will have the same design.



b. To easily communicate with her audience, she wants to provide them with a hard copy of the slides of the presentation. What should she create for it?

* Handout view is used for setting up the layout of your slides for a printed handout. **c. She wants to insert some pictures and movie files in some slides. How can she do that?**
* Select the slide to insert the picture.
* Choose Insert□Picture □From File option, and choose the required picture that has to be inserted into the slide.

d. Suggest her the view that would be the most suitable for showing the presentation to the audience.

* Use Slide Show view to deliver your presentation to your audience. Slide Show view occupies the full computer screen, exactly the way your presentation will look on a big screen when your audience sees it.

e. To make her presentation more attractive, she wants to add some effects in it. How can she do it? Suggest.

* To make her presentation attractive, she needs to add animation and transition effects to the slides.

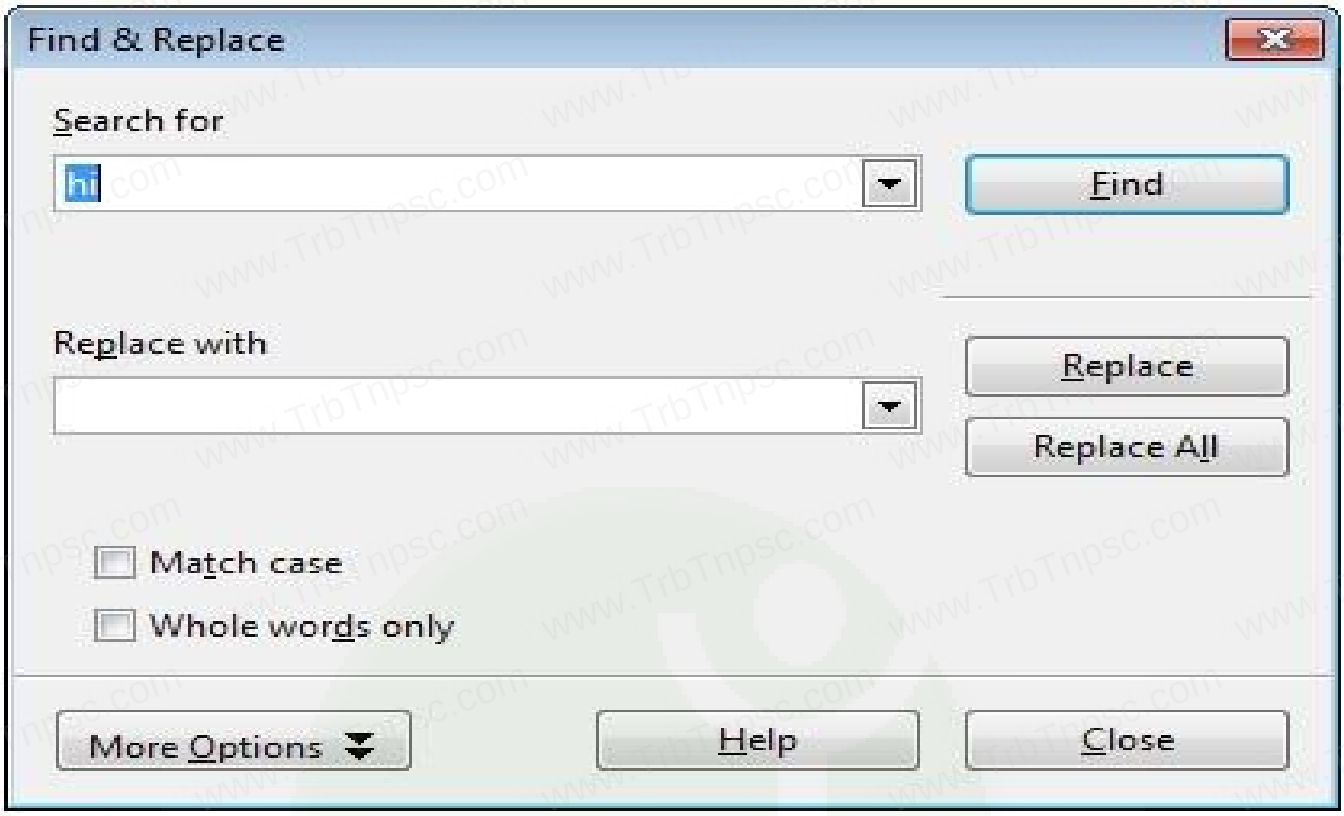
2. Explain how a presentation can help a salesperson to promote his/her products.

* Presentation is helpful for a sales person to promote his/her products effectively.
* Presentation will give visual video, pictures to understand a goodness of the product.
* By using presentation, sales person can make audience to understand easier and he can get more response from the people.

* Presentation help sales person to present prospect challenges easier.
* Sales person can explain with physical demonstration by shocking animations. It helps to increase the sales.

3. Sivabalan created a presentation to be shown at his school's Annual Function. Just 5 minutes before the presentation, he noticed that he has misspelt the name of the school, which is appearing in all the 30 slides of the presentation. How can he rectify this mistake in all the slides in one-shot?

* The slide master will be helpful in this situation. Select the Master slide,
* Choose Edit □ Find & Replace option from the menu bar. The Find & Replace Dialog box appears on the screen,



* In the search for box type the misspelt word.
* Type the correct word in the Replace with box.
* Click the Find option to find the misspelt word.
* Click the Replace All option to replace the correct word in all the slides. You can see the replacement in all the slides.

4. List some advantages of using templates.

Professional Graphic Design: Templates will give professional Graphic Design which helps you to create branded PowerPoint presentation.

Branding: Templates can easily be modified by changing colors, fonts, graphics, or even add your own logo to the mix.

Speed: With a good starting point in each slide, your presentation is made in a snap.

Quick Customization: It's much easier to edit the template in its original form, not as a copy of a copy.

Consistency: A consistent design scheme will avoid jarring transitions and the sneaking suspicion that the presentation was pasted together as a ransom note.