Chapter: 17 — **Informational and Communication** — www.pakcity.org

Objective

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1. The computer based information system (CBIS) is formed by …….. components.
   - Ⓐ 6
   - Ⓑ 5
   - Ⓒ 4
   - Ⓓ 3

2. In computer terminology information means:
   - Ⓐ Processed data
   - Ⓑ Large data
   - Ⓒ Raw data
   - Ⓓ Any data

3. From which of the following you can get information almost about everything?
   - Ⓐ Internet
   - Ⓑ Computer
   - Ⓒ Teacher
   - Ⓓ Books

4. …….. is not proceeding: or Which of the following is not processing?
   - Ⓐ Manipulating
   - Ⓑ Calculating
   - Ⓒ Gathering
   - Ⓓ Arranging

5. In computer terminology the term machinery refers to:
   - Ⓐ Procedure
   - Ⓑ Data
   - Ⓒ Software
   - Ⓓ Hardware

6. Telephone system has parts: or The telephone system has parts:
   - Ⓐ 5
   - Ⓑ 4
   - Ⓒ 2
   - Ⓓ 3

7. Telephone was invented in: or Graham Bell made a simple Telephone in:
   - Ⓐ 1976
   - Ⓑ 1776
   - Ⓒ 1676
   - Ⓓ 1876

8. Alexander Graham Bell in 1876 made:
   - Ⓐ Telephone
   - Ⓑ Computer
   - Ⓒ Machine
   - Ⓓ Cell

9. Radio wave are:
   - Ⓐ Electromagnetic
   - Ⓑ Sound wave
   - Ⓒ Mechanical
   - Ⓓ All of these

10. Which is the most suitable means of reliable continuous communication between an orbiting Satellite and earth?
    - Ⓐ Any Light waves
    - Ⓑ Microwaves
    - Ⓒ Sound waves
    - Ⓓ Radio waves

11. Radio technology is used in:
    - Ⓐ Mobile phone
    - Ⓑ Micro phone
    - Ⓒ Fax machine
    - Ⓓ Telephone

12. Fax machine is also called:
    - Ⓐ Telephone
    - Ⓑ Tele facsimile machine
    - Ⓒ Computer
    - Ⓓ Radio

13. One Kilo byte (1 KB) data is equal to: or 1 KB=?
    - Ⓐ 10 MB
    - Ⓑ 1024 MB
    - Ⓒ 124 KB
    - Ⓓ 1024e

14. One megabyte is equal to: or One megabyte has how many kilo bytes: or A megabyte has how many kilo bytes:
    - Ⓐ 1024 KB
    - Ⓑ 1034 KB
    - Ⓒ 1054 KB
    - Ⓓ 1044 KB

15. The basic operations performed by a computer are:
    - Ⓐ Arithmetic and logic operation
    - Ⓑ Non-arithmetic operation
    - Ⓒ Logic operation
    - Ⓓ Arithmetic operation

16. 1 GB data is equal to:
    - Ⓐ 1024 Bytes
    - Ⓑ 1000 KB
    - Ⓒ 1024 KB
    - Ⓓ 1024 MB

17. One bytes is equal to:

Ⓐ 4 Bits	Ⓑ 8 Bits	© 6 Bits	Ⓓ 10 Bits

18. The brain of any computer system is:

Ⓐ Memory	Ⓑ Control Unit	© CPU	Ⓓ Monitor

19. 1024 Kb are equal to:

Ⓐ 1 PB	Ⓑ 1 MB	© 1 TB	Ⓓ 1 GB

20. 1024 bytes are equal to:

Ⓐ 1 mB	Ⓑ 1 GB	© 1 MB	Ⓓ 1 KB

21. A CD can store over ……….. of computer data.

Ⓐ 680 gigabyte	Ⓑ 680 megabyte	© 17 gigabyte	Ⓓ 17 megabyte

22. If CD is made of soft elastic material then it is called:

Ⓐ Computer disc	Ⓑ Hard disc	© Metallic disc	Ⓓ Floppy

23. The disc made of Aluminum is:

Ⓐ Laser disc	Ⓑ Hard disc	© Floppy disc	Ⓓ Compact disc

24. A ordinary floppy disk can store data upon:

Ⓐ 6 to 10 megabyte	Ⓑ 1 to 3 megabyte	© 2 to 3 megabyte	Ⓓ 3 to 5 megabyte

25. A device used to transport files from one computer to another:

Ⓐ Printer	Ⓑ Flash driver	© Laser	Ⓓ Compact disc

26. E-mail is: or For what does term e-mail stands for: or What does the term e-mail stand for:

Ⓐ Electricity	Ⓑ Urgent mail	© Emergency mail	Ⓓ Electronic mail

27. Which of there is not a web browser?

Ⓐ Mozilla Fire fox	Ⓑ You Tube	© Safari	Ⓓ Chrome

28. Whit broadband information can be loaded:

Ⓐ In 1 day	Ⓑ In 1 sec	© 1 hour	Ⓓ In 1 min

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⭐ Subjective ⭐

Q1: ***Define Telecommunication. Or What is telecommunication?***

Ans: **Telecommunication:**

The method that is used to communicate information to far off place instantly is called telecommunication.

Sources:

Mobile phones, radar and transmission to satellites in space are important sources.

Q2: ***What is the difference between data and information?***

Ans: The difference between data and information is:

Data	Information
❖ Data are fact that is used by programs to produce useful information.	❖ In computer terminology, processed data is called information.

Q3: ***Define information and communication technology? OR***

Define information technology?

Ans: **Information technology:**

Information and communication technology (ICT) is defined as the scientific methods and means to store, process and transmit vast amounts of information in second with the help of electronic equipment's.

Q4: **What is the relation between information technology and telecommunication? OR What is the difference between information technology and telecommunication?**

Ans: The difference between information technology and telecommunication:

Information technology	Telecommunication
❖ The scientific method used to store information, to arrange it for proper use and to communicate it to others is called information technology (IT).	❖ The method that is used to communication information to far off places instantly is called telecommunication.

Q5: **Write the difference between software and hardware. Write the difference between computer hardware and software.**

Ans: The difference between software and hardware is:

Software	Hardware
❖ The term software refers to computer programs and the manuals that support them. Computer programs are machine-readable instructions that direct the circuitry within the hardware parts of the CBIS to produce useful information from data. Programs are generally stored on some input/output medium, often disk or tape.	❖ The term hardware refers to machinery. This includes the central processing unit (CPU), and all of its support equipment. Among the support equipment are input and output devices, storage devices and communication devices.

Q6: **Define Data.**

Ans: Facts and figures that are used by programs to produce useful information is called data.

Q7: **Define hardware. What is meant by hardware?**

Ans: The term hardware refers to machinery this includes the centered processing unit (CPU) and all of its support equipment i. e input and output devices.

Q8: **Write the name of parts of hardware computer.**

Ans: Parts of Computers:

1. keyboard
2. speakers
3. Floppy
4. Hard disc
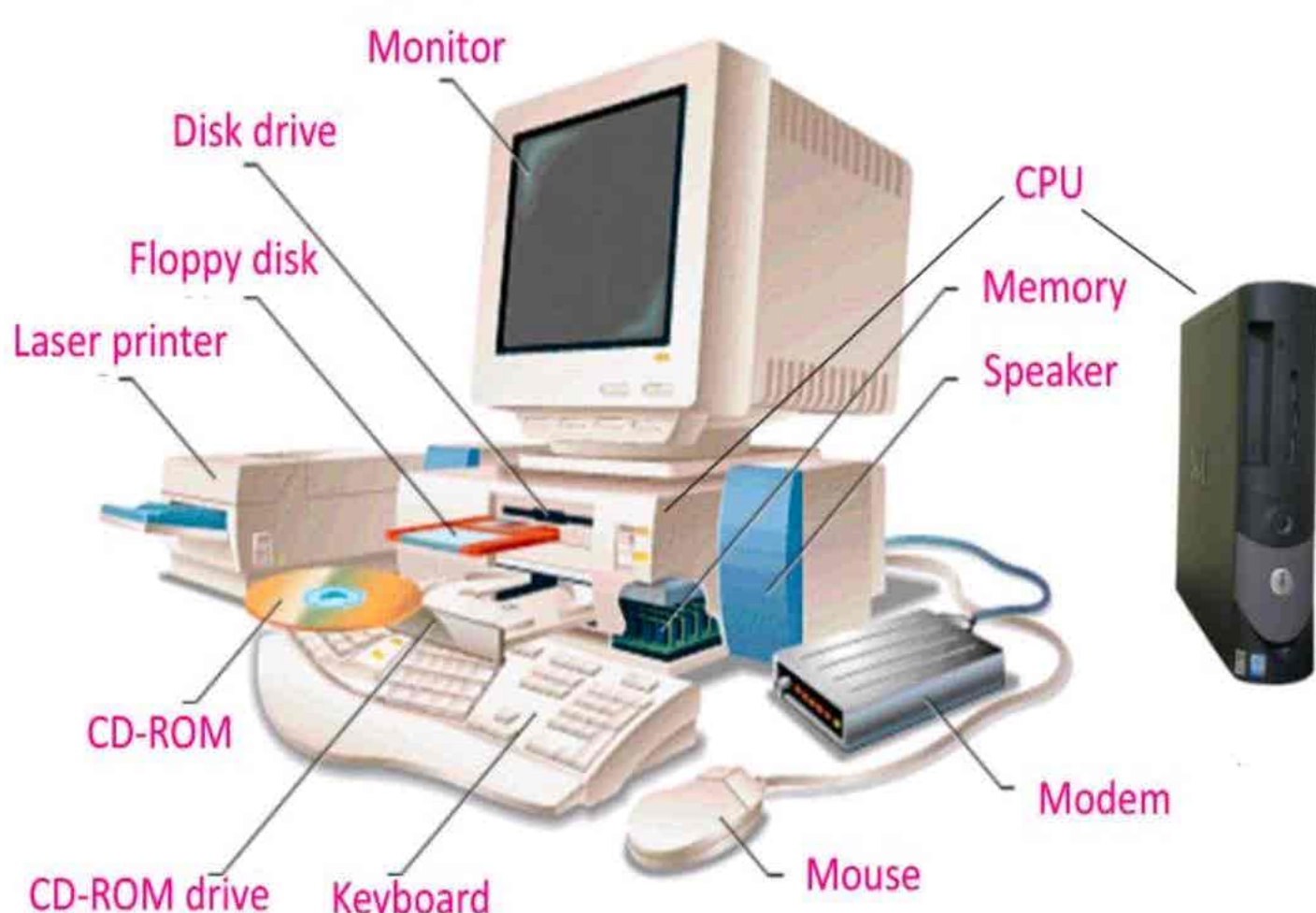5. keyboard
6. Mouse
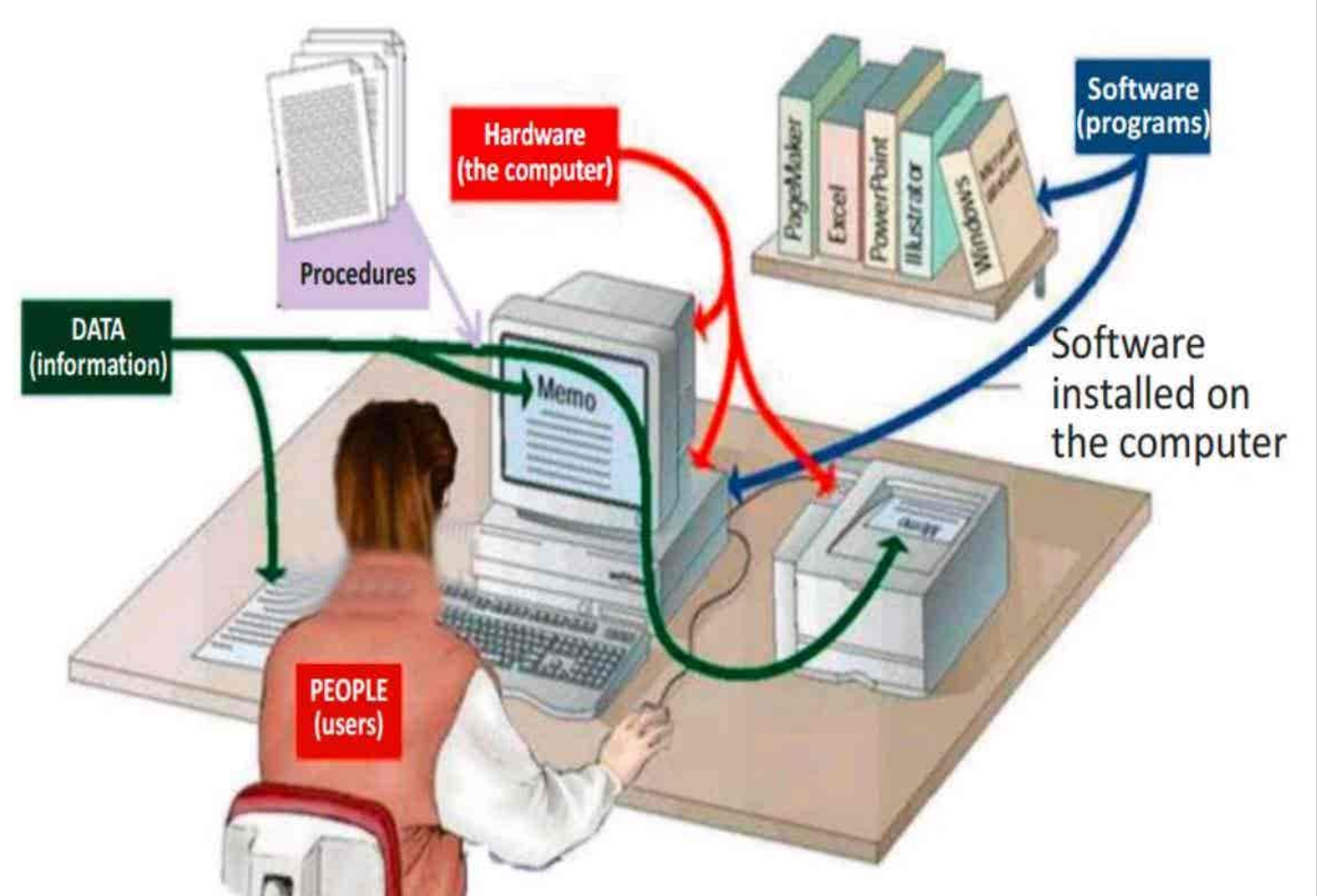7. CD's
8. CPU

Fig.   Parts of a computer

Fig.   Components of CBIS

Q10: **Define Software.**

Ans: **Software:**

The term software refers to computer programs and the manuals that support them. Computer programs are machine-readable instructions that direct the circuitry within the hardware parts of the CBIS to produce useful information from data. Programs are generally stored on some input and output medium, often disk or tape.

Q11: **BSc and MSc stands for what word.**

Ans: **BSc stand for:**

"Base Stations Centre"

MSc Stand for:

"Mobile Switching Centre"

Q12: **Where is coaxial cable wires used?**

Ans: **Solid Wire:**

Coaxial cable wires are used to transmit electric signals such as cable TV to your home. To prevent electric and magnetic interference from outside, a covering of conducting material surrounds the coaxial wires.

For your information

Insulating sleeve

Cylindrical braid

Solid wire

Coaxial cable wires are used to transmit electric signals such as cable TV to our homes. To prevent electric and magnetic interference from outside, a covering of conducting material surrounds the coaxial wires.

Q13: **Write down two uses of Microwaves.**

Ans: Uses of Microwaves:
- ❖ The use of microwave in communication satellites
- ❖ Transmission of cell phone through microwaves

Q14: **What is cell phone? Write a note on cell phone.**

Ans: **Cell phone:**

Radio technology is applied in mobile phone. It is a type of radio having two way communications. A cell phone carries a radio transmitter and a receiver inside it. It sends and receives the message inform of radio waves.

Cell phone system consists of:
- ❖ Cell
- ❖ Base Stations Centre (BSC)
- ❖ Mobile Switch Centre (MSC)

Caller — Base station of the caller

Moblie switching centre — Cell

Receiver — Base station of other cell

Fig.   Cell phone network

Q15: **What is the function of C.P.U? Define CPU, why it is called brain of computer?**

Ans: The most important piece of hardware is the central processing unit (CPU). It contains a tiny rectangular chip called microprocessor. It is the "brain" of computer the part that translates instructions and performs calculations.

Q16: **Define operating system and give example.**

Ans: **Operating system:**

The operating system and (OS) is software that manages your computer and the devices connected to it. Two well-known operating systems are windows and Linux operation system.

Q17: **What is a computer? Write its two uses.**

Ans: **Computer:**

Computer is an electronic computing machine used for adding, subtracting or multiplying. Computer works through an interaction of hardware and software.
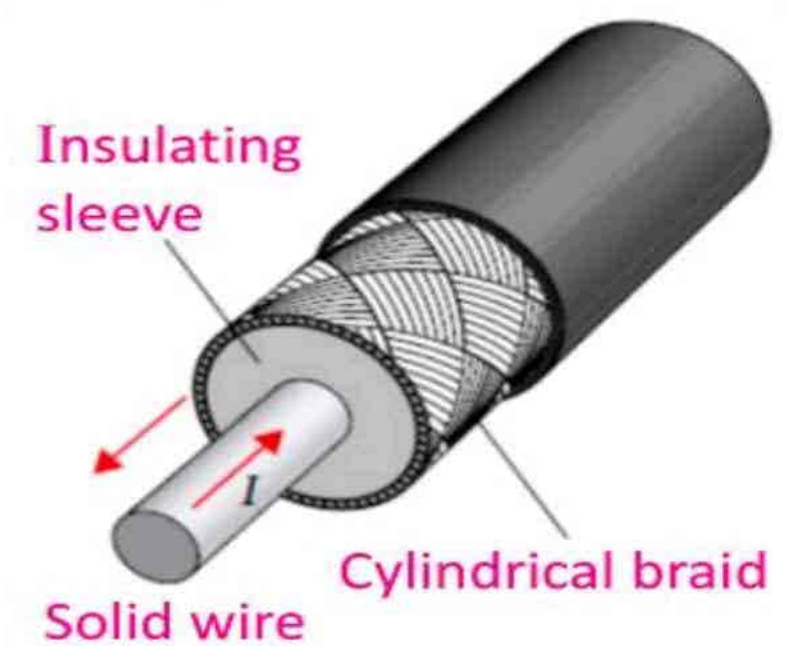
Uses of computer:
- ❖ In railway's computers are used for rail reservation, printing of tickets and preparation of reservation charts.
- ❖ Computer is used for advance booking of rooms, preparing bills and providing enquiry services in hotels.
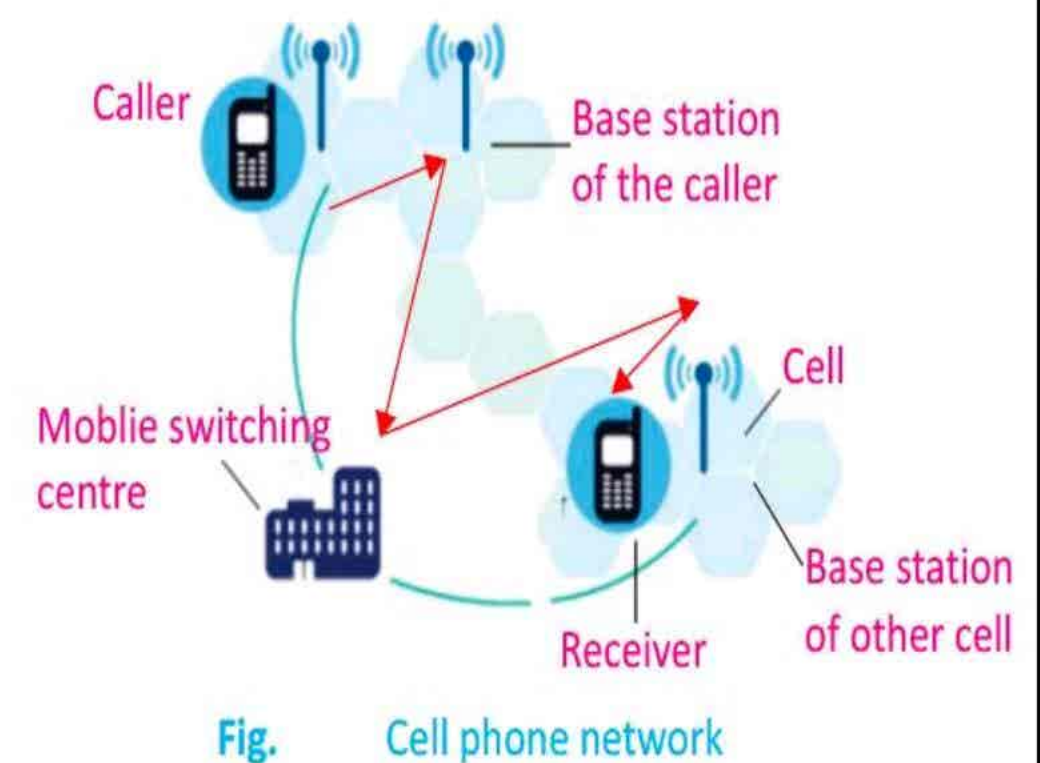
Q18: **What is meant by primary memory? Define primary memory.**

Ans: **Primary memory:**

It is based electronics and consists of integrate circuit (ICS). It consists of two parts ROM and RAM. ROM starts the computer and RAM used in computer as temporary memory.

Q19: What is difference between RAM and ROM memory?

Ans: Difference between RAM and ROM memory is:

ROM	RAM
❖ Rom, stand for read only memory which starts the computer.	❖ RAM stands for Random Access memory which is used in computer as temporary memory. RAM Vanishes when computer is switch off.

Q20: What is difference between primary and secondary memory?

Ans: The difference between primary and secondary memory is:

Primary Memory	Secondary Memory
❖ It is based electronics and consists of integrated circuit (ICS). It consists of two parts RAM. ROM starts the computer and RAM used in computer as temporary memory.	❖ The data storage devices are generally the secondary memory of the computer. It is used to store the data permanently in the computer. When we open a program data moves from secondary memory to primary memory.

Q21: What is secondary storage device?

Ans: **Secondary storage device:**

The data storage devices, It is used store data permanently in the computer. When are open a program the data is moved from secondary memory to primary memory.

Example:

Audio, video cassettes and hard disk.

Q22: What is meant by internet? OR Define internet.

Ans: **Internet:**

Internet is a network of networks which spreads all across the globe.

Q23: What is meant by A.T.M.?

Ans: **A.T.M:**

A.T.M means an automated teller machine (ATM) is an electronic banking outlet, which allows customers to complete basic transactions without the aid of a branch representative or teller. There are two primary types of automated teller machines or ATM.

Q24: State two uses of internet. What are the two main services used on the internet?

Ans: **Uses of Internet:**

❖ This function allows us to send and receive text messages.
❖ This function allows users to view web pages using a web browser.

Conceptual Question

Q1: What do you mean by flow of information?

Ans: Flow of information means the transfer of information from one place to another through different electronic and optical equipment. In telephone, information is sent through wires in from electrical signals. In radio, television and cell phone information is sent either through space in the form of electromagnetic waves or through optical fibers in from of light.

Q2: Why Micro waves are more effective for satellite communication.

Ans: Micro waves are more effective for satellite because microwaves travel in straight lines through the space and give a very strong signal we can connect to the other side of the world in milliseconds.

Q3: Write a note on Fax Machine. Or What the function of Fax Machine.

Or What is Fax Machine?

Ans: A fax machine basically scans a page to convert its text and graphic into electronic signals and transmits it to another fax machine through telephone line. The receiving machine converts the signal and uses a printer to create the copy of the message that was sent.

Fig.   Fax machine

Q4: **What is photo? OR Define photo phone.**

Ans: Modern version of phone is photo phone or video phone, contrary to a common telephone, users can see the pictures of each other.

Q5: **What is computer? Write the name of its important parts. What is a computer?**

Ans: **Computer:**

Computer is an electronic computing machine used for adding, subtracting or multiplying computer work through an interaction of hardware and software.

Parts of Computer:

CPU, monitor, keyboard, printer and mouse etc.

Q6: **Write four parts of computer.**

Ans: **Name of parts of computer:**

- ❖ CPU
- ❖ Monitor
- ❖ Keyboard
- ❖ Mouse
- ❖ Printer

Q7: **What is meant by optical fibers?**

Ans: An optical fiber with a coating of lower refractive index is a thin strand of high-quality   glass that absorbs very little light. An optical fiber cable is a bundle if glass fibers with thickness of a human hair.

Transmission of digital voice data by fibre optics

Glass Fibre

Input   Output

Most of the data transmitted across the Internet is also carried by light. A network of fibre optic cables across the country carrying data from one computer to another.

Q8: **How light signals are sent through optical fiber?**

Ans: An optical fiber with a coating of lower refractive index is a thin strand of high-quality glass that absorbs very little light. An optical fiber cable is a bundle of glass fibers with thickness of a human hair. Light that enters the core at one end of the optical fiber goes straight and hits the inner wall (the cladding) of fiber optics. If the angle of incidence with cladding is less than the critical angle, some of light will escape the fiber optics and is lost. However if the angle of incidence is greater than the critical angle, light is totally reflected into the fiber options. Then the totally reflected beam of light travels in a straight ine until it hits the inner wall again and so on.
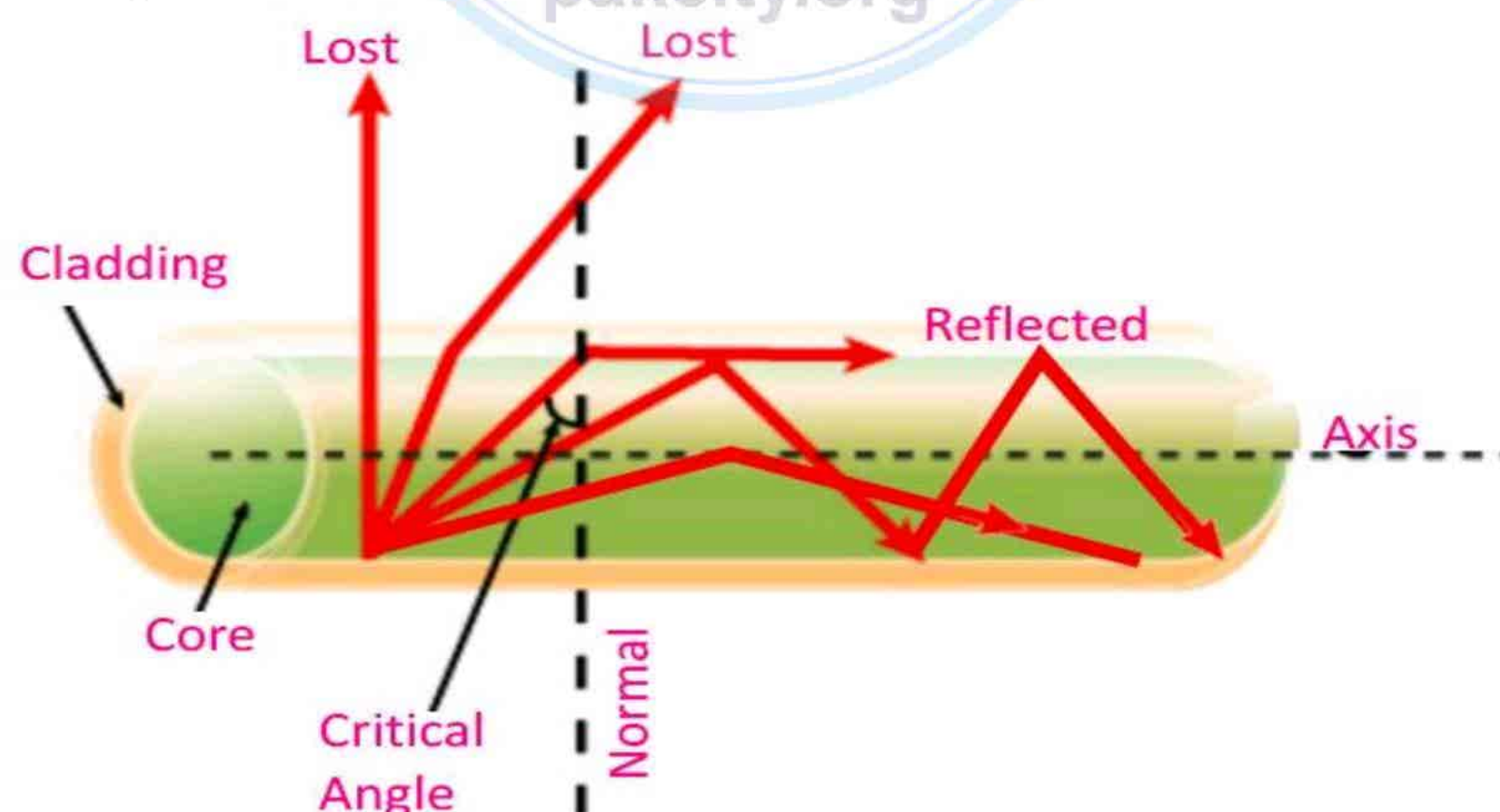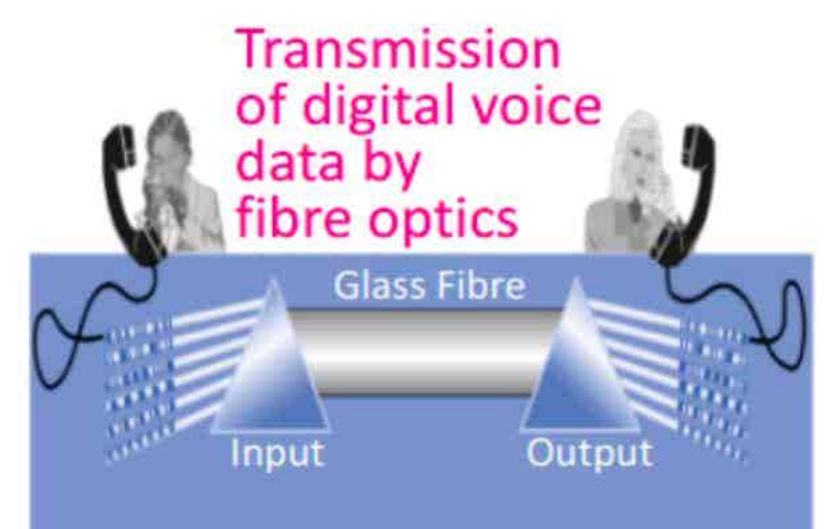
Fig.   Light entering a glass rod at greater than the critical angle is trapped inside the glass

Q9: **Write down two uses of computer. Write down two use of computer in daily life.**

Ans: **Uses of Computer:**

- ❖ In railway's computers are used for rail reservation, printing of tickets and preparation of reservation charts.

❖ Computer is used for advance booking of rooms, preparing bills and providing enquiry services in hotels.

Q10: Write name of four input devices of computer.

Ans: Following are the input devices in computer:

❖ Key Board ❖ Image Scanner ❖ Microphone
❖ Mouse ❖ Light pen ❖ Web cam

Q11: What is meant by compact disc?

Ans: A molded plastic disc is containing digital data that is scanned by laser beam for the reproduction of recorded sound or other information. This is based on laser technology. It is usually said (C.D).

Fig. Compact disk (CD)

Q12: Why data cannot be stored in floppy disk for long time.

Ans: They are reliable only for short-term storage and cannot be used longer on attempts should be made to save the data for a longer period.

A floppy disk works on the principle of magnetism. This as the magnetic field weakens the data will also be lost. That's why data cannot be stored in floppy disk for long time.

Q13: What do you understand by the terms "word processing" and "data managing"?

Ans: Word processing:

Word processing is such a use of computer through which we can write a letter, prepare reports and books. By means of this we can develop any document and see it on the screen after typing.

Data Management:

To collect information for a special purpose and to store it is a computer in a file form, which may help at times when we need.

Q14: Describe the importance of fast communication.

Ans: We can messages anywhere in the world instantly. We can send our messages to many friends or people only in one action. Pictures or other files can also be sent through e-mail.

Q15: What is meant by ICT in information and communication technology?

Ans: ICT is basically an electronic based system of information transmission reception, processing and retrieval. ICT is a blend of two fields' information technology and telecommunication.

Definition:

The scientific methods and means to store. Process and transmit vast amount of information in seconds with the help of electronic equipment.

Additional Question

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Q1: Define data management? Or Explain data management.

Ans: Data management:

To collect information for a special purpose and to store it in a computer in a file form, this may help at times when we needed.

Q2: Define Word processing. Or What is word processing?

Ans: Word processing:

Word processing is such a use of computer through which we can write a letter, prepare reports and books. By means of this we can develop any document and see it on the screen after typing.

Q3: What is floppy disk?

Ans: A floppy disk is a small magnetically sensitive, flexible plastic wafer housed in plastic case can store data up to few bytes.

Q4: What is hard disk?

Ans: Most users rely on hard disks as their primary storage devices. A hard disk is a rigid magnetically inside disk that spins rapidly and

Fig. Floppy disk

continuously inside the computer chassis or in a separate box connected to the computer housing. This type of hard disk is never removed by the user.
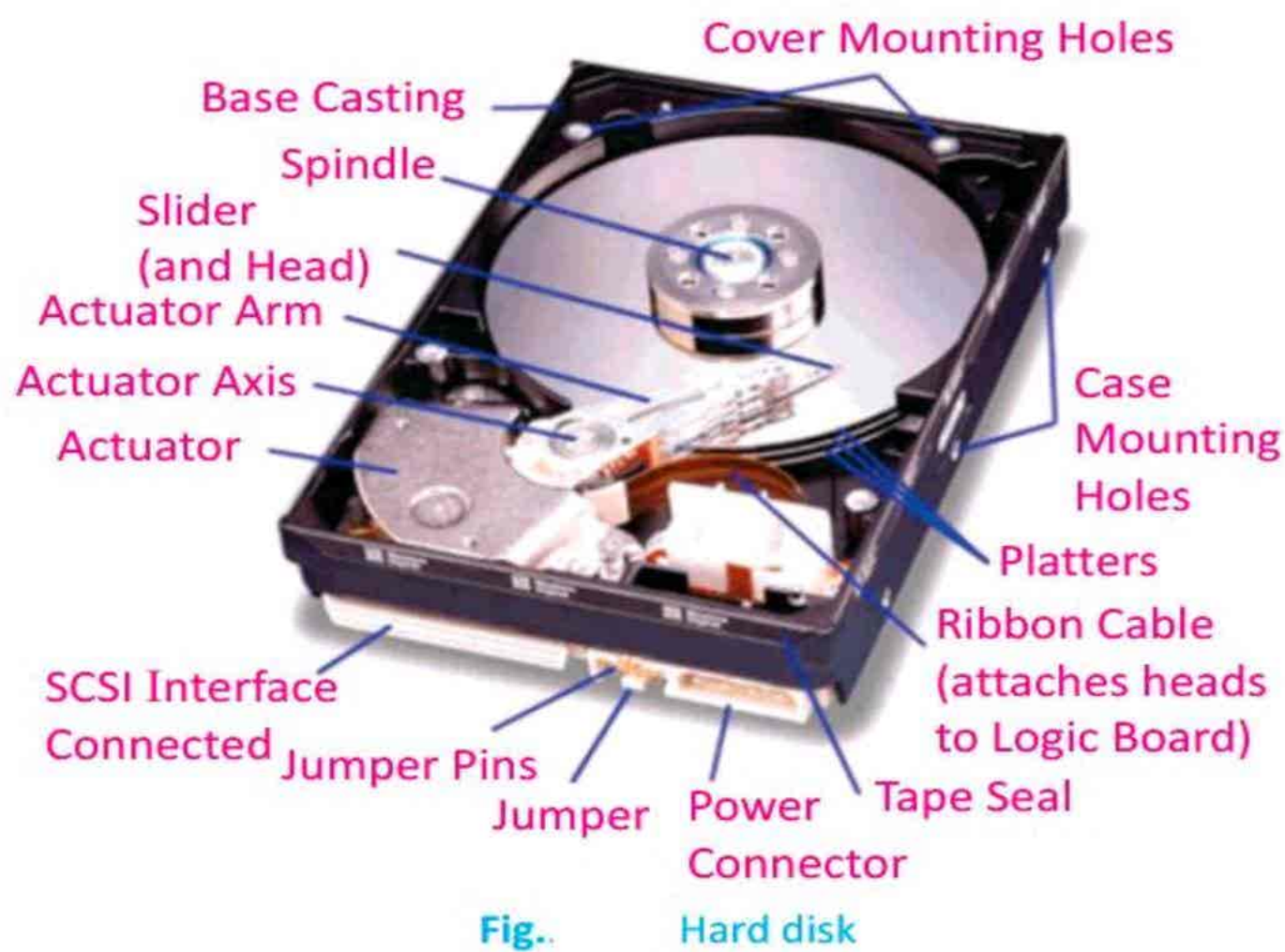

Fig.. Hard disk

Q5: *For data storage floppy disk is better or hard disk. Give reason.*

Ans: Hard disk is metallic disk, which is move better to store data as compare to floppy disk. Floppy disk is not reliable as compare to hard disk and the storage capacity of hard disk is thousands time is more as floppy disk.

Q6: *What is flash drive?*

Ans: It is also an electronic based device and consist of data storage ICS. A flash derive is small storage device that can be used to transport files from one computer to another.

Fig.   Flashdrive

Q7: *What is meant by global web?*

Ans: **Global web:**

Internet is a global web of more than several million nets in which more than 50 million computers are operating and several millions people participate through the world. The number is increasing day by day. Contact can be made at any time during the day or night on internet.

Q8: *What is E-commerce?*

Ans: Electronic commerce commonly written as E-commerce is the trading or facilitation of trading in products or facilitation of trading in products or services using computer networks such as the internet.

Q9: *Write names of four web browsers. What are browsers? Give example.*

Ans: A browser is an application which provides a window to the web. The most popular browsers on the market today include.

- ❖ *Mozilla Firefox*
- ❖ *Internet Explorer*
- ❖ *Google Chrome*
- ❖ *Safari*
- ❖ *Opera*
- ❖ *The word*

Fig..   Icons of different web browsers

Q10: *For what purpose browsers are used?*

Ans: A browser is an application which provides a window to the web. All browsers are designed to display the pages of information located at web sites around the world.

Q11: **Write two advantages of E-mail. OR Write the two uses of electronic mail.Write down four advantages of E-mail.**

Ans: **Advantages of E-Mail:**

❖ Communication through e-mail is more quick and reliable, as well as low cost.
❖ E-mail delivers messages very fast in everywhere throughout world.

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⭐ **Imp.Long Questions** ⭐

Q.1: **Describe any three components of (CBIS) computer based information system. (Write Any 3)**

Q.2: **What are components of information technology? Write the function of any three.**

Q.3: **Write the components of computer bade information system.**

Q.4: **Explain transmission of electrical signals through wires.**

Q.5: **Explain transmission of radio waves through space briefly.**

Q.6: **Write a note on the following: a) Fax machine b) photo phone.**

Q.7: **What is computer? What is its role in our daily life?**

Q.8: **Discuss the role of information technology in school education?**

Q.9: **Differentiate between primary memory and secondary memory.**

Q.10: **What is Internet? Explain Internet services.**