# CHAPTER # 1

**1. Knowledge.** The basic components of computer are:

a) RAM, ROM, CPU

b) Monitor, keyboard, mouse

c) Hard disk, DVD Rom, printer

d) All of the mentioned

**2. Understanding.** RAM is called volatile memory because the data stored in it is lost as long as power is supplied to the computer.

a) removed b) overwritten c) accessible d) stored

**3. Application.** Amit wants to give a presentation to his class. Which of the following components will he need to use?

a) CPU b) RAM c) Projector d) Hard disk

**4. Knowledge.** A device that accepts data and instructions from the user is called:

a) Input device b) Output device c) Storage device d) CPU

**5. Understanding.** Temporary storage devices such as registers and RAM need power to retain data.

a) Electricity b) Battery c) Signals d) None

**6. Application.** You have written an essay in Microsoft Word and saved it on your laptop. When you start your laptop after a few days, you want to make some changes in the essay. Which component(s) of the computer will help you load and modify the file?

a) CPU b) Hard disk c) RAM d) ROM

**7. Knowledge.** CPU stands for:

a) Control Performance Unit b) Central Processing Unit c) Control Programming Unit d) None

**8. Understanding.** A device that supplies power to all the computer components is called:

a) Software b) Hardware c) Power Supply d) None

**9. Application.** Ali is working on a project report. While he was halfway through his work, there was a power failure. Due to which, he lost all the unsaved data. Which component failed to work here?

a) RAM b) Hard disk c) Power Supply d) CPU

**10. Knowledge.** ROM stands for:

a) Read Only Memory b) Random Access Memory c) Removal Operating Memory d) None

**11. Understanding.** RAM is more efficient than ROM because data can be written, read and modified from RAM.

a) Saved, loaded, changed b) Stored, accessed, altered c) Held, obtained, transformed d) None

**12. Application.** Zara wants to store her documents, photos and videos on the computer permanently even when the power is switched off. Which type of memory should she use?

a) RAM b) ROM c) Hard disk d) Flash drive

**13. Knowledge.** RAM chips are of dynamic type.

a) True b) False c) Volatile d) None

**14. Understanding.** Data transmission within a computer system is done with the help of:

a) Buses b) CAB c) CPU d) Mouse

**15. Application.** Mary wants to perform certain calculations very fast. For which of the following components will she expect the fastest processing: CPU, ROM, RAM?

a) CPU b) ROM c) RAM d) All are equal

**16. Knowledge.** L1, L2 and L3 are different levels of cache memory.

a) True b) False c) Primary d) None

**17. Understanding.** ROM is read only memory because once data is written on it, it cannot be erased.

a) Deleted b) Changed c) Modified d) Extracted

**18. Application.** Ayaz wants to buy a laptop. Which of the following is NOT an important specification he should consider: storage capacity, screen size, cache memory?

a) Storage capacity b) Screen size c) Cache memory d) Refresh rate

**19. Knowledge.** An explanation unit in the CPU that decodes and executes instructions is called:

a) ALU b) FPU c) CU d) L1 cache

**20. Understanding.** New data can be added to read only memory but the existing data cannot be modified.

a) True b) False c) Sometimes d) May be

**21. Application.** The mouse and keyboard are examples of input devices that allow input of data and instructions into the computer.

a) True b) False c) Sometimes d) May be

**22. Knowledge.** Hard disk is an example of secondary storage.

a) True b) False c) May be d) None

**23. Understanding.** Registers are located inside the CPU and provide the fastest access to data/instructions.

a) True b) False c) RAM d) ROM

**24. Application.** An administrator wants to back up important data files on the network server in case of hard disk crash. Which type of storage should he use?

a) RAM b) ROM c) Hard disk of other computer d) Flash drive

**25. Knowledge.** L3 cache is the largest but slowest level of cache memory.

a) True b) False c) Faster d) None

**26. Understanding.** RAM can be read and written many times, making it better suited for storing volatile data.

a) True b) False c) Sometimes d) May be

**27. Application.** Seema wants to share a video file with her friend who lives in another city. Which component(s) of the computer will help her transfer the file?

a) CPU b) Network adapter c) RAM d) Hard disk

**28. Knowledge.** A device that conveys data between memory and CPU is called:

a) Cache b) Bus c) CU d) DVD

**29. Understanding.** ROM stores instructions that are needed to boot the computer system when it is powered on.

a) True b) False c) Sometimes d) May be

**30. Application.** Roohan wants to play a game on his laptop that requires high computational capabilities. For smooth gameplay, he should have components that can process data quickly. Name two such components.

a) CPU, RAM b) CD, DVD c) ROM, Hard disk d) Monitor, speaker

**31. Knowledge.** Solid-state drives (SSDs) use flash memory, making them faster than hard disk drives.

a) True b) False c) Same d) None

**32. Understanding.** Registers hold data and partial results closer to the CPU to reduce the time for accessing and retrieving data/instructions.

a) True b) False c) Sometimes d) May be

**33. Application.** Which of the following components is directly involved in arithmetic and logical operations: CPU, mouse, keyboard?

a) CPU b) Mouse c) Keyboard d) All

**34. Knowledge.** A device that transfers data between CPU and external storage devices is called:

a) PSU b) Controller c) RAM d) DVD

**35. Understanding.** Main memory (RAM) is directly connected to the CPU via a/an memory bus.

a) True b) False c) Cab d) DVD

# CHAPTER # 2

**1. Knowledge:** An operating system is installed on the \_\_\_\_\_\_\_\_\_\_ of a computer.

a) Keyboard

b) Monitor

c) Hard disk

d) RAM

**2. Understanding:** Which component of the computer manages and controls its hardware and software resources?

a) CPU

b) RAM

c) Operating system

d) Hard disk

**3. Application:** You want to install a new software on your computer. What will you require to install and run the software?

a) Hard disk space

b) RAM

c) Operating system

d) Monitor

**4. Knowledge:** Operating systems can be classified based on their intended \_\_\_\_\_\_\_\_\_\_.

a) Architecture

b) Users

c) Storage

d) Memory

**5. Understanding:** MS-DOS, Windows, Linux and Mac OS are examples of \_\_\_\_\_\_\_\_\_\_ operating systems.

a) Single-user

b) Multi-user

c) Time-sharing

d) Distributed

**6. Application:** You are using a computer in your school's computer lab. Several students are using other systems simultaneously for their assignments. What type of operating system could be installed on these computers?

a) Single-user

b) Multi-user

c) Time-sharing

d) Distributed

7. Knowledge: A real-time operating system is useful for applications that require \_\_\_\_\_\_\_\_\_ responses such as process control.

a) Fast

b) Slow

c) Medium

d) Sporadic

8. Understanding: Operating systems manage computer hardware resources which includes the \_\_\_\_\_\_\_, \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_.

a) CPU, Monitor, Keyboard

b) CPU, RAM, Hard disk

c) RAM, Hard disk, Monitor

d) Keyboard, Monitor, Hard disk

9. Application: Your Windows operating system is running very slow these days. You need to improve the performance. What resource should you upgrade?

a) Monitor

b) Hard disk

c) RAM

d) Keyboard

10. Knowledge: Unix is an example of a/an \_\_\_\_\_\_\_\_\_\_ operating system.

a) Open-source

b) Closed-source

c) Proprietary

d) Free

11. Understanding: Windows is an example of a/an \_\_\_\_\_\_\_\_\_\_ operating system.

a) Open-source

b) Closed-source

c) Proprietary

d) Free

**12. Application:** You want to develop modifications and extensions for your operating system. Which type of operating system will allow you to do so?

a) Closed-source only

b) Open-source

c) Proprietary

d) Free only

**13. Knowledge:** iOS is the operating system used in \_\_\_\_\_\_\_\_ devices.

a) Mac computers

b) Windows computers

c) iPhone

d) Android phones

**14. Understanding:** Android is the operating system used in \_\_\_\_\_\_\_\_ devices.

a) Mac computers

b) Windows computers

c) iPhone

d) Android phones

**15. Application:** You have recently purchased a new smartphone but do not like the operating system it came with. You wish to install a new OS on it. Which type of smartphones will allow you to change the OS?

a) iPhone

b) Android

c) Windows phones

d) Basic phones

**16. Knowledge:** In terms of functionality, an operating system acts as an intermediary between the user and the \_\_\_\_\_\_\_\_.

a) Software

b) Hardware

c) Processor

d) Network

**17. Understanding:** Device drivers are system programs that allow the operating system and other programs to communicate with the \_\_\_\_\_\_\_\_.

a) Software

b) Hardware

c) Processor

d) Network

**18. Application:** Upon booting your computer, you receive an error that your graphics card driver is missing. What type of program is required to be installed to resolve this issue?

a) Antivirus

b) Device driver

c) Operating system

d) Processor

**19. Knowledge:** A popular open-source operating system with a graphical user interface is known as \_\_\_\_\_\_\_\_.

a) Linux

b) Windows

c) Mac OS

d) iOS

**20. Understanding:** Linux is an operating system whose source code is publicly available and is \_\_\_\_\_\_\_\_\_.

a) Open-source

b) Closed-source

c) Freeware

d) Proprietary

**21. Application:** You are looking for an operating system to use on your low-configuration computers at low cost. Linux would be a good choice for this purpose due to its \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_ nature.

a) Stability, paid

b) Crash-proneness, free

c) Open-source, customizability

d) Closed-source, high cost

**22. Knowledge:** A graphical user interface allows users to interact with programs through graphical icons and visual indicators rather than \_\_\_\_\_\_\_\_\_ commands.

a) Text-based

b) Voice-based

c) Touch-based

d) Graphical

**23. Understanding:** Common examples of operating systems with graphical user interfaces are Windows, Mac OS and \_\_\_\_\_\_\_\_.

a) Linux

b) MS-DOS

c) iOS

d) Android

**24. Application:** You are not very familiar with command line interfaces. What type of operating systems would make it easier for you to use the computer?

a) Command-line based only

b) Graphical user interface based

c) Touchscreen based

d) Voice command based

**25. Knowledge:** batch file, shell script, AppleScript and Windows PowerShell are examples of \_\_\_\_\_\_\_\_\_\_\_ files used by various operating systems.

a) Configuration

b) System

c) Script

d) Code

**26. Understanding:** A file containing a series of commands executed as a group by the operating system is called a/an\_\_\_\_\_\_\_\_\_\_ file.

a) System

b) Configuration

c) Script

d) Code

**27. Application:** You want to automate a repetitive task on your computer. Creating a/an \_\_\_\_\_\_\_\_\_\_ file would help you accomplish this task without manually entering the same commands every time.

a) System

b) Configuration

c) Script

d) Code

**28. Knowledge:** MS-DOS is an example of a/an \_\_\_\_\_\_\_\_\_\_ operating system.

a) Open-source

b) Closed-source

c) Command-line based

d) Graphical user interface based

**29. Understanding:** An operating system with only a command line interface does not provide features like multiple windows, icons, folders, etc. These type of systems require use of \_\_\_\_\_\_\_\_\_\_ commands.

a) Graphical

b) Text-based

c) Touch-based

d) Voice-based

**30. Application:** You are working on an old desktop computer which has MS-DOS installed. What type of commands would you need to use to operate it?

a) Graphical commands

b) Voice commands

c) Touch commands

d) Text-based commands

**31. Knowledge:** Type of productivity software designed to create, edit and save documents is called \_\_\_\_\_\_\_\_\_\_ software.

a) Operating system

b) Application

c) System software

d) Utility software

**32. Understanding:** Example of application software categories include office suites, photo editing, video editing, web browsing etc. These software are also known as \_\_\_\_\_\_\_\_\_\_ software.

a) Operating system

b) System software

c) Application

d) Utility software

**33. Application:** You want to create a report containing text, tables and images. Which type of software would you require?

a) Operating system

b) Web browser

c) Word processor

d) Device driver

**34. Knowledge:** Type of software designed to perform maintenance and low level work of computer hardware and operating system is known as \_\_\_\_\_\_\_\_\_\_ software.

a) Application

b) System

c) Utility

d) Operating system

**35. Understanding:** Examples of system software include device drivers, firmware, architects, network softwares etc. These programs are used to support and provide basic functionality for \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_ software.

a) Application, system

b) Hardware, application

c) Operating system, application

d) System, utility

# CHAPTER # 3

**1. Knowledge:** \_\_\_\_\_\_\_ is a word processing program used to type, edit and format documents.

a) MS PowerPoint

b) MS Excel

c) MS Word

d) MS Access

**2. Understanding:** In MS Word, the area where you can type, view and edit documents is called the \_\_\_\_\_\_\_.

a) Menu bar

b) Toolbar

c) Status bar

d) Document window

**3. Application:** You need to type a report containing text and images. Which application would you use?

a) MS Excel

b) MS PowerPoint

c) MS Word

d) MS Access

**4. Knowledge:** \_\_\_\_\_\_\_ is a spreadsheet program used to store, manipulate, calculate and analyze data.

a) MS PowerPoint

b) MS Excel

c) MS Word

d) MS Access

**5. Understanding:** In MS Excel, each cell is identified by its \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_.

a) Column, row

b) Size, format

c) Width, height

d) Address, location

**6. Application:** You have collected sales data of your shop for one year and want to perform calculations on it. Which application would you use?

a) MS Word

b) MS PowerPoint

c) MS Excel

d) MS Access

**7. Knowledge:** The basic elements of an MS Word document are called \_\_\_\_\_\_\_.

a) Lines and paragraphs

b) Characters and words

c) Pages and sections

d) Cells and sheets

**8. Understanding:** In MS Word, text, images, tables etc. are inserted and organized between visible page \_\_\_\_\_ that breaks up long documents.

a) Section breaks

b) Line breaks

c) Paragraph breaks

d) Character breaks

**9. Application:** You have written a long thesis that you need to divide into smaller readable portions. Which feature of MS Word can you use?

a) Footnotes

b) Page breaks

c) Section breaks

d) Styles

**10. Knowledge:** The basic units of information in an MS Excel workbook are called\_\_\_\_\_.

a) Cells

b) Rows

c) Columns

d) Sheets

**11. Understanding:** A row in an Excel sheet runs \_\_\_\_\_\_\_ whereas a column runs \_\_\_\_\_\_\_.

a) Horizontally, vertically

b) Vertically, horizontally

c) Diagonally, diagonally

d) In zigzag

**12. Application:** You want to insert multiple records of students in Excel with their name, roll number etc. in separate rows. What feature will you use?

a) Columns

b) Cells

c) Rows

d) Sheets

**13. Knowledge:** MS Excel uses a consistent system of addressing cells based on their \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_.

a) Name, title

b) Row, column

c) Width, height

d) Address, location

**14. Understanding:** The cell address increases when moving \_\_\_\_\_\_\_ in a row or \_\_\_\_\_\_\_ in a column in Excel.

a) Left, down

b) Right, up

c) Down, right

d) Up, left

**15. Application:** You want to enter a formula in cell B5 that will multiply the values in cells A5 and B4. Which cell addresses will you use in the formula?

a) A5, B4

b) B5, A4

c) $A$5, $B$4

d) A4, B5

**16. Knowledge:** \_\_\_\_\_\_\_ allows you to apply built-in functions to perform automatic calculations in Excel.

a) Formatting

b) Styles

c) Functions

d) Macros

**17. Understanding:** Common Excel functions include SUM, AVERAGE, COUNT, MIN, MAX to perform basic \_\_\_\_\_\_\_ operations on data sets.

a) Formatting

b) Styles

c) Mathematical

d) Financial

**18. Application:** You have sales figures of each month. You want to calculate the total annual sales amount. Which Excel function would you use?

a) MAX

b) AVERAGE

c) COUNT

d) SUM

**19. Knowledge:** The command used to automatically fill data in a range of cells based on existing values is called \_\_\_\_\_\_\_.

a) Drag-to-fill

b) Fill handle

c) Auto fill

d) Paste special

**20. Understanding:** AutoFill feature is used to \_\_\_\_\_\_\_ repetitive data or a pattern of values down, right, left or up in cells by dragging the fill handle.

a) Format

b) Calculate

c) Fill

d) Sum

**21. Application:** You have entered student names from A1 to A5. You want to add their roll numbers automatically from B1 to B5. Which feature will help you accomplish this with minimum effort?

a) Font

b) AutoSum

c) AutoFill

d) Borders

**22. Knowledge:** Templates allow users to create documents that already contain common \_\_\_\_\_\_\_, \_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_ etc.

a) Formats, styles, objects

b) Rows, columns, sheets

c) Headers, footers, page numbers

d) Charts, tables, images

**23. Understanding:** In MS Word, templates are used to \_\_\_\_\_\_\_ the formatting and layout work needed to create standard types of documents.

a) Double

b) Lengthen

c) Shorten

d) Simplify

**24. Application:** You want to create invitation cards for an event using a pre-designed template containing required fonts, colors and sections. Which MS Office feature will help you accomplish this?

a) Sections

b) Styles

c) AutoCorrect

d) Templates

**25. Knowledge:** An MS Excel \_\_\_\_\_\_\_ contains multiple individual worksheets to organize and work with related data in separate segments.

a) Template

b) Sheet

c) Workbook

d) Cell

**26. Understanding:** Worksheets inside an Excel workbook are represented through \_\_\_\_\_\_\_ on the bottom of the application window.

a) Menu bar

b) Status bar

c) Tab

d) Ribbon

**27. Application:** You have sales data of different branches saved in multiple worksheets within a single Excel file. Which MS Excel element organizes this data?

a) Cell

b) Column

c) Workbook

d) Sheet

**28. Knowledge:** A structured reference containing a sheet name and cell reference is called a(n) \_\_\_\_\_\_\_.

a) Sheet tab

b) Formula

c) Cell reference

d) Workbook reference

**29. Understanding:** Workbook references are required in Excel when copying/moving formulas between sheets to successfully \_\_\_\_\_\_\_ external cells.

a) Hide

b) Reference

c) Delete

d) Format

**30. Application:** You have entered a formula in sheet1 referring to a cell in sheet2. On copying this formula to another sheet, it will give an error. To fix it, you need to use a/an \_\_\_\_\_\_\_\_.

a) Absolute reference

b) Relative reference

c) Mixed reference

d) Workbook reference

**31. Knowledge:** Templates, styles and themes help maintain \_\_\_\_\_\_\_ document formats and appearances in MS Word and Excel.

a) Consistent

b) Inconsistent

c) Beautiful

d) Attractive

**32. Understanding:** Applying templates ensure compliance with company \_\_\_\_\_\_\_ by automatically populating standard fonts, logos, headers/footers etc.

a) Branding

b) Formatting

c) Colors

d) Fonts

**33. Application:** You need to create multiple reports using your organization's required template containing its logo, headers and fonts. Which feature will help you achieve consistency?

a) Formatting

b) Styles

c) Templates

d) Themes

**34. Knowledge:** Macros are programs or sets of instructions that automate \_\_\_\_\_\_\_ and repetitive tasks in Office programs like Word and Excel.

a) Simple

b) Advanced

c) Frequent

d) Manual

**35. Understanding:** Common uses of macros include commonly performed tasks, creating standard letters/reports, enforcing formatting and data \_\_\_\_\_\_\_.

a) Creation

b) Validation

c) Deletion

d) Protection

# CHAPTER # 4

**1. Knowledge:** The process of transferring data from one device to another over a medium is called \_\_\_\_\_\_\_\_.

a) Communication

b) Transmission

c) Networking

d) Sharing

**2. Understanding:** For communication to occur, there must be a sender, receiver, \_\_\_\_\_\_\_ and common set of rules called a protocol.

a) Processor

b) Message

c) Medium

d) Language

**3. Application:** You want to email a document to your teacher. This involves which components of the communication process?

a) Sender, receiver, internet, email protocol

b) Sender, processor, memory, operating system

c) Receiver, cable, modem, WiFi

d) Teacher, document, printer, scanner

**4. Knowledge:** The various physical connection types used for data transmission include \_\_\_\_\_\_, \_\_\_\_\_\_, optical fiber etc.

a) Ethernet cable, wireless, cellular

b) Switch, router, modem

c) Voltage, signals, bandwidth

d) Traffic, nodes, packets

**5. Understanding:** A cable containing copper wire strands that connects computers locally in an office is called \_\_\_\_\_\_ cable.

a) Coaxial

b) Optical fiber

c) Ethernet

d) USB

**6. Application:** Your college has an internal network connecting different labs. Which type of cable is likely used for this local area connectivity?

a) Ethernet

b) Cellular

c) Optical fiber

d) Bluetooth

**7. Knowledge:** The system that allows transmission of data carrier beams through air is called \_\_\_\_\_\_\_.

a) Ethernet

b) WiFi

c) Optical fiber

d) Bluetooth

**8. Understanding:** Wireless networks rely on \_\_\_\_\_\_\_\_\_\_ waves that propagate in free space to transfer data between devices electromagnetically.

a) Radio

b) Infrared

c) Bluetooth

d) Ethernet

**9. Application:** You want to connect your laptop to the Internet without using any physical cable. Which transmission technology allows this?

a) WiFi

b) Infrared

c) Ethernet

d) Bluetooth

**10. Knowledge:** The technology used for transmitting data as pulses of light through glass or plastic fibers is called \_\_\_\_\_\_\_.

a) Ethernet

b) WiFi

c) Optical fiber

d) Bluetooth

**11. Understanding:** Optical fiber networks have higher bandwidth and ability to carry more data as compared to other cabled networks due to use of light in the \_\_\_\_\_\_\_ spectrum.

a) Visible

b) Infrared

c) Radio frequency

d) Microwave

**12. Application:** Your organization is setting up its wide area network connecting multiple cities. Optical fiber would be the best choice due to its high bandwidth capability for carrying large amounts of data quickly over long distances.

a) True

b) False

**13. Knowledge:** A local area network spans a relatively small physical area like a home, office, school, airport etc. and is called a \_\_\_\_\_\_\_.

a) WAN

b) LAN

c) WLAN

d) PAN

**14. Understanding:** Common examples of LAN technologies include Ethernet, Token Ring, ARCnet. They interconnect devices like printers, desktops, servers within close physical proximity usually within a building.

True or False statement.

**15. Application:** Your school has a computer network connecting devices in different labs and offices within the same building. This type of network configuration is classified as a/an:

a) WAN

b) LAN

c) WLAN

d) PAN

**16. Knowledge:** A wireless local area network covering a small area like a home, classroom, coffee shop etc. is called a \_\_\_\_\_\_\_.

a) WLAN

b) WAN

c) LAN

d) PAN

**17. Understanding:** A WLAN uses high frequency radio waves/infrared line of sight to connect WiFi enabled devices like laptops, smartphones, printers within close proximity without wires using standards like WiFi, Bluetooth etc.

a) True

b) False

**18. Application:** You are using the WiFi network provided in your university campus to access internet on your laptop and smartphone. This type of network configuration is classified as:

a) WAN

b) LAN

c) WLAN

d) PAN

**19. Knowledge:** A wide area network covers a large geographical distance like campuses, cities, countries or interlinking continents using both wired and wireless means is called a \_\_\_\_\_\_.

a) LAN

b) WAN

c) WLAN

d) PAN

**20. Understanding:** Unlike LANs operating within limited space, WANs connect geographically dispersed sites using transmission options like leased lines, optical fiber, cellular etc. and are privately owned by enterprises or service providers.

a) True

b) False

**21. Application:** A multinational company has offices in several countries. It uses a dedicated network infrastructure to connect all its locations worldwide. This type of network comes under:

a) WLAN

b) LAN

c) WAN

d) PAN

**22. Knowledge:** A PAN operates within close proximity within the range of a person's voice used for connecting wearable devices.

a) PAN

b) LAN

c) WLAN

d) WAN

**23. Understanding:** A PAN covers a small area within 10 meters using technologies like Bluetooth to sync smartwatches, fitness trackers, medical sensors etc. directly with smartphones.

a) True

b) False

**24. Application:** You want to connect your Bluetooth headphones with your mobile phone while jogging in a park. This short-range wireless technology falls under:

a) WLAN

b) LAN

c) WAN

d) PAN

**25. Knowledge:** Massive amounts of data travelling over networks needs to be managed, controlled and organized systematically by networking \_\_\_\_\_\_\_.

a) Devices

b) Users

c) Programs

d) Devices

**26. Understanding:** Networking programs handle \_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_ between connecting devices to facilitate uninterrupted transmission of information.

a) Routing, switching, addressing

b) Downloading, browsing, streaming

c) Encryption, authorization, ports

d) Bandwidth, packets, traffic

**27. Application:** Your organization has set up a LAN using Ethernet switches to connect computers in different departments. The switches and networking programs use concepts like addressing and routing internally to manage data forwarding across devices transparently.

a) True

b) False

**28. Knowledge:** The medium used to send information in the form of grouped data units in a network is called a/an \_\_\_\_\_\_\_.

a) Port

b) IP address

c) Packet

d) Protocol

**29. Understanding:** Packets contain source and destination addressing along with data payload to ensure proper routing through switches/routers until received at intended recipient.

a) True

b) False

**30. Application:** Information transmitted over the internet between your phone and website server is divided into smaller manageable data bundles called:

a) Protocols

b) Packets

c) Ports

d) IP addresses

**31. Knowledge:** A unique number identifying a device on a network and used for addressing is called its \_\_\_\_\_\_\_.

a) Port

b) IP address

c) MAC address

d) Protocol

**32. Understanding:** Every device connected to the internet like smartphones, laptops, websites etc. must have a valid IP address for identification and exchange of packets with other systems on the network.

a) True

b) False

**33. Application:** You want to access your company's server residing on your organization's intranet. The networking application will use the server's assigned alphanumeric IP address to locate it.

a) True

b) False

**34. Knowledge:** A unique identifier assigned to each network interface card of a device on a local network is called its \_\_\_\_\_\_\_.

a) IP address

b) Port

c) MAC address

d) Protocol

**35. Understanding:** While IP addresses can change, the MAC address of ethernet/wireless card is pre-burned into the hardware and provides low level networking identification of devices.

a) True

b) False

c) Sometimes true

d) None of these

# Chapter # 5

**1. Knowledge:** A computer network allows -

a) Sharing of resources

b) Communication

c) Distribution

d) Isolation

**2. Understanding:** Network devices are connected using -

a) Hardware only

b) Software only

c) Both hardware and software

d) Neither hardware nor software

**3. Application:** Your school installed -

a) Switches and WiFi

b) Routers and hubs

c) Bridges and modems

d) Servers and workstations

**4. Knowledge:** LAN connects devices in -

a) One building

b) One country

c) Same continent

d) Entire world

**5. Understanding:** LAN connects devices -

a) Remotely

b) Over long distances

c) Within close proximity

d) Using satellites

**6. Application:** Your school network is an example of -

a) LAN

b) WAN

c) WLAN

d) MAN

**7. Knowledge:** WAN connects devices -

a) Locally

b) Nationally

c) Globally

d) Statewide

**8. Understanding:** WAN spans large areas using -

a) Short range radios

b) Infrared signals

c) Mobile networks

d) Bluetooth

**9. Application:** Network connecting schools is -

a) LAN

b) WAN

c) VPN

d) Cluster

**10. Knowledge:** WLAN connects devices -

a) Indoors using cables

b) Outdoors using cables

c) Indoors using wireless

d) Underwater using lasers

**11. Understanding:** WLAN is a type of -

a) LAN using WiFi

b) WAN using satellites

c) MAN using fibers

d) None of the above

**12. Application:** Wireless network in your class is -

a) WLAN

b) LAN

c) WAN

d) VPN

**13. Knowledge:** MAN connects devices -

a) In a building

b) Within a campus

c) In a city

d) Between cities

**14. Understanding:** LAN consists of computers -

a) Globally linked

b) Nationally linked

c) In one room

d) Within limited space

**15. Application:** Cables in your school connect -

a) WAN

b) LAN

c) WLAN

d)MAN

**16. Knowledge:** Network topology refers to -

a) Hardware components

b) Logical layout

c) Physical design

d) None of the above

**17. Understanding:** Topologies define organization of devices -

a) In LAN

b) In room

c) On network

d) Between cities

**18. Application:** Layout of computers in your lab uses -

a) Star topology

b) Ring topology

c) Tree topology

d) Bus topology

**19. Knowledge:** Star topology shape resembles -

a) Ring

b) Bus

c) Tree

d) Star

**20. Understanding:** Star uses -

a) Central router

b) End devices linked directly to hub/switch

c) Switches in hierarchy

d) Ring topology

**21. Application:** Wireless devices in class use -

a) Star topology

b) Ring topology

c) Tree topology

d) Bus topology

**22. Knowledge:** Data transmission uses -

a) Guided or unguided media

b) Wired or wireless media

c) Optic or electric media

d) Plastic or glass media

**23. Understanding:** Guided media contain -

a) Wireless signals

b) Open spaces

c) Cables

d) Sound waves

**24. Application:** Cables underground use -

a) Guided media

b) Wireless media

c) Unguided media

d) Broadcast media

**25. Knowledge:** Unguided media transmit through -

a) Cables

b) Free space

c) Ducts

d) Pipes

**26. Understanding:** Wireless networks use -

a) Guided media

b) Conducted media

c) Wired media

d) Unguided media

**27. Application:** Your laptop uses -

a) Unguided media

b) Wireless media

c) Wired media

d) Fiber media

**28. Knowledge:** Maximum data capacity is -

a) Bandwidth

b) Baud rate

c) Transfer rate

d) Topology

**29. Understanding:** Broadband has higher -

a) Bandwidth

b) Baud rate

c) Cabling

d) Routing

**30. Application:** To stream video you need -

a) Low latency

b) High bandwidth

c) Many routes

d) Small topology

**31. Knowledge:** Speed to send signals is -

a) Bandwidth

b) Transfer rate

c) Baud rate

d) Capacity

**32. Understanding:** Dialup has lower -

a) Bandwidth

b) Processing

c) Topology

d) Baud rate

**33. Application:** Video calls need higher -

a) Transfer rate

b) Bandwidth

c) Topology

d) Baud rate

**34. Knowledge:** Actual data transmission rate is -

a) Bandwidth

b) Baud rate

c) Transfer rate

d) Topology

**35. Understanding:** Transfer rate depends on -

a) Topology used

b) Cabling layout

c) Baud rate and encoding

d) Number of routers

# CHAPTER # 5

**1. Knowledge:** A computer network allows -

a) Sharing of resources

b) Communication

c) Distribution

d) Isolation

**2. Understanding:** Network devices are connected using -

a) Hardware only

b) Software only

c) Both hardware and software

d) Neither hardware nor software

**3. Application:** Your school installed -

a) Switches and WiFi

b) Routers and hubs

c) Bridges and modems

d) Servers and workstations

**4. Knowledge:** LAN connects devices in -

a) One building

b) One country

c) Same continent

d) Entire world

**5. Understanding:** LAN connects devices -

a) Remotely

b) Over long distances

c) Within close proximity

d) Using satellites

**6. Application:** Your school network is an example of -

a) LAN

b) WAN

c) WLAN

d) MAN

**7. Knowledge:** WAN connects devices -

a) Locally

b) Nationally

c) Globally

d) Statewide

**8. Understanding:** WAN spans large areas using -

a) Short range radios

b) Infrared signals

c) Mobile networks

d) Bluetooth

**9. Application:** Network connecting schools is -

a) LAN

b) WAN

c) VPN

d) Cluster

**10. Knowledge:** WLAN connects devices -

a) Indoors using cables

b) Outdoors using cables

c) Indoors using wireless

d) Underwater using lasers

**11. Understanding:** WLAN is a type of -

a) LAN using WiFi

b) WAN using satellites

c) MAN using fibers

d) None of the above

**12. Application:** Wireless network in your class is -

a) WLAN

b) LAN

c) WAN

d) VPN

**13. Knowledge:** MAN connects devices -

a) In a building

b) Within a campus

c) In a city

d) Between cities

**14. Understanding:** LAN consists of computers -

a) Globally linked

b) Nationally linked

c) In one room

d) Within limited space

**15. Application:** Cables in your school connect -

a) WAN

b) LAN

c) WLAN

d)MAN

**16. Knowledge:** Network topology refers to -

a) Hardware components

b) Logical layout

c) Physical design

d) None of the above

**17. Understanding:** Topologies define organization of devices -

a) In LAN

b) In room

c) On network

d) Between cities

**18. Application:** Layout of computers in your lab uses -

a) Star topology

b) Ring topology

c) Tree topology

d) Bus topology

**19. Knowledge:** Star topology shape resembles -

a) Ring

b) Bus

c) Tree

d) Star

**20. Understanding:** Star uses -

a) Central router

b) End devices linked directly to hub/switch

c) Switches in hierarchy

d) Ring topology

**21. Application:** Wireless devices in class use -

a) Star topology

b) Ring topology

c) Tree topology

d) Bus topology

**22. Knowledge:** Data transmission uses -

a) Guided or unguided media

b) Wired or wireless media

c) Optic or electric media

d) Plastic or glass media

**23. Understanding:** Guided media contain -

a) Wireless signals

b) Open spaces

c) Cables

d) Sound waves

**24. Application:** Cables underground use -

a) Guided media

b) Wireless media

c) Unguided media

d) Broadcast media

**25. Knowledge:** Unguided media transmit through -

a) Cables

b) Free space

c) Ducts

d) Pipes

**26. Understanding:** Wireless networks use -

a) Guided media

b) Conducted media

c) Wired media

d) Unguided media

**27. Application:** Your laptop uses -

a) Unguided media

b) Wireless media

c) Wired media

d) Fiber media

**28. Knowledge:** Maximum data capacity is -

a) Bandwidth

b) Baud rate

c) Transfer rate

d) Topology

**29. Understanding:** Broadband has higher -

a) Bandwidth

b) Baud rate

c) Cabling

d) Routing

**30. Application:** To stream video you need -

a) Low latency

b) High bandwidth

c) Many routes

d) Small topology

**31. Knowledge:** Speed to send signals is -

a) Bandwidth

b) Transfer rate

c) Baud rate

d) Capacity

**32. Understanding:** Dialup has lower -

a) Bandwidth

b) Processing

c) Topology

d) Baud rate

**33. Application:** Video calls need higher -

a) Transfer rate

b) Bandwidth

c) Topology

d) Baud rate

**34. Knowledge:** Actual data transmission rate is -

a) Bandwidth

b) Baud rate

c) Transfer rate

d) Topology

**35. Understanding:** Transfer rate depends on -

a) Topology used

b) Cabling layout

c) Baud rate and encoding

d) Number of routers

# CHAPTER # 6

**1. Knowledge:** The process of protecting computer systems and data from cyber threats is called -

a) Hacking

b) Computer safety

c) Computer security

d) Cybercrimes

**2. Understanding:** Computer security aims to prevent and detect -

a) Virus attacks only

b) Unauthorized access

c) System crashes

d) Slow performance

**3. Application:** To protect student data, your school has implemented -

a) Antivirus software

b) Firewalls

c) User profiles

d) All of the above

**4. Knowledge:** A type of malware that replicates itself is -

a) Adware

b) Spyware

c) Virus

d) Worm

**5. Understanding:** Viruses spread by -

a) infecting files and programs

b) slowing down systems

c) consuming system resources

d) both a and c

**6. Application:** Your friend's computer is running slow. This indicates -

a) Presence of antivirus

b) Lack of system updates

c) Inadequate security

d) Virus infection

**7. Knowledge:** Malicious software delivered via pop-ups is -

a) Virus

b) Spyware

c) Adware

d) Worm

**8. Understanding:** Spyware monitors user activity secretly to-

a) Protect against viruses

b) Provide marketing

c) Analyze browser behavior

d) Defragment hard disks

**9. Application:** You see unwanted pop-ups while browsing. This suggests-

a) System is secure

b) Presence of adware

c) High bandwidth issue

d) Outdated browser

**10. Knowledge:** Malware that steals personal data is -

a) Virus

b) Spyware

c) Adware

d) Ransomware

**11. Understanding:** Computer worms spread automatically without user action via -

a) Emails

b) USBs

c) Networks

d) Websites

**12. Application:** A worm is spreading in office computers through -

a) Email forward

b) Network shares

c) USB transfer

d) Printers

**13. Knowledge:** The process to verify a user account is -

a) Authentication

b) Authorization

c) Access Control

d) Auditing

**14. Understanding:** The permission to access resources after verification is called-

a) Authentication

b) Authorization

c) Accounting

d) Access Control

**15. Application:** Students require authorization to access lab machines after login -

a) True

b) False

**16. Knowledge:** Blocking access to unauthorized people is -

a) Authentication

b) Access Control

c) Accounting

d) Authorization

**17. Understanding:** Auditing tracks computer event logs for -

a) Security breaches

b) Usage analysis

c) Uptime monitoring

d) Performance stats

**18. Application:** Your school audits systems to detect -

a) Policy violations

b) Network traffic

c) Legitimate usage

d) None of the above

**19. Knowledge:** Controlling the number of failed login attempts helps -

a) Performance monitoring

b) Resource monitoring

c) Access Control

d) Network monitoring

**20. Understanding:** Invalid password entry beyond threshold locks user account temporarily -

a) True

b) False

**21. Application:** Limiting login attempts prevents -

a) Cybercrimes

b) Spyware attacks

c) Brute force hacking

d) Trojans

**22. Knowledge:** Using complex passwords containing numbers, symbols make password -

a) Shorter

b) Easier to remember

c) Weaker

d) Stronger

**23. Understanding:** Strong password practice involves changing them periodically -

a) Monthly

b) Annually

c) Never

d) Quarterly

**24. Application:** You change passwords every -

a) 3 months

b) Yearly

c) Never

d) As and when required

**25. Knowledge:** Creating separate account for each user follows -

a) Authentication policy

b) Authorization policy

c) Accounting policy

d) Access control policy

**26. Understanding:** Distributing user privileges based on roles is based on -

a) Authentication

b) Accounting

c) Authorization

d) Access control

**27. Application:** Teachers have authorization for admin controls while students have limited access -

a) True

b) False

**28. Knowledge:** Blocking malicious sites helps protect from -

a) Viruses only

b) All cyberthreats

c) System crashes

d) Network issues

**29. Understanding:** Firewalls block inbound/outbound traffic not conforming to set policies -

a) True

b) False

**30. Application:** Your school uses firewalls to filter internet for students -

a) True

b) False

**31. Knowledge:** Software updates fixes security issues by patching vulnerabilities -

a) True

b) False

**32. Understanding:** Regular updates prevent hackers exploiting known bugs.

a) True

b) False

**33. Application:** You keep antivirus and OS updated regularly for protection.

a) True

b) False

**34. Knowledge:** Backup restores data in case of accidental file deletion or disk failure.

a) True

b) False

**35. Understanding:** Having regular backups safeguards data from malware like ransomware.

a) True

b) False