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Q1. What is unauthorized access with malicious intent commonly referred to as?

- (a) Phishing
- (b) Hacking
- (c) Data Mining
- (d) Spoofing
- (e) Firewall Breach

Q2. Which method is commonly used to steal your identity online?

- (a) Phishing
- (b) Data Encryption
- (c) Cloud Storage
- (d) Firewall
- (e) Debugging

Q3. In email communication, what do the terms CC and BCC stand for?

- (a) Current Copy and Blind Copy
- (b) Carbon Copy and Blind Carbon Copy
- (c) Central Communication and Backup Communication
- (d) Clear Copy and Backup Carbon Copy
- (e) Contact Copy and Blind Contact Copy

Q4. What typically happens when a system hangs or freezes?

- (a) CPU Overload
- (b) System Reboot
- (c) Blue Screen of Death (BSOD)
- (d) Application Crash
- (e) None of the above

Q5. Which of the following software is commonly used for sending and receiving emails?

- (a) Adobe Photoshop
- (b) Microsoft Word
- (c) Microsoft Outlook
- (d) VLC Media Player
- (e) AutoCAD

Q6. In a Gmail address, what does the "@" sign separate?

- (a) Username and password
- (b) Username and domain
- (c) Email ID and contact number
- (d) Sender and recipient
- (e) Local and international servers

Q7. In MS Excel, what remains visible constantly even if you move through rows and columns?

- (a) Headers
- (b) Freeze Panes
- (c) Gridlines
- (d) Active Cell
- (e) None of the above

Q8. Who is known as the father of computers?

- (a) Alan Turing
- (b) Steve Jobs
- (c) Bill Gates
- (d) Charles Babbage
- (e) John von Neumann

Q9. Which type of malware can self-replicate and propagate without needing a host program?

- (a) Virus
- (b) Worm
- (c) Trojan Horse
- (d) Spyware
- (e) Ransomware

Q10. Which of the following software is used to create and edit a document?

- (a) MS Excel
- (b) MS PowerPoint
- (c) MS Word
- (d) MS Access
- (e) Adobe Photoshop

Q11. What are the concentric circles on a hard disk called?

- (a) Sectors
- (b) Clusters
- (c) Blocks
- (d) Tracks
- (e) Cylinders

Q12. FORTRAN belong to which category of programming languages?

- (a) Assembly Language
- (b) Machine Language
- (c) High-Level Language
- (d) Scripting Language
- (e) Low-Level Language



Q13. Which of the following is used to convert a hard copy document into a digital copy?

- (a) Printer
- (b) Monitor
- (c) Scanner
- (d) CPU
- (e) Keyboard

Q14. Which of the following shortcut keys is used to select all the content in a document?

- (a) Ctrl + C
- (b) Ctrl + X
- (c) Ctrl + A
- (d) Ctrl + S
- (e) Ctrl + V

Q15. Which shortcut key is used to jump to the beginning of a document in MS Word?

- (a) Ctrl + Home
- (b) Ctrl + End
- (c) Ctrl + B
- (d) Alt + Tab
- (e) Shift + Home

Q16. Which of the following devices or software is commonly used for wireless file transfer within a small range?

- (a) USB Cable
- (b) Bluetooth
- (c) Ethernet
- (d) HDMI
- (e) CD-ROM

Q17. What is the primary function of a firewall in a computer network?

- (a) Monitor CPU performance
- (b) Block unauthorized access
- (c) Increase internet speed
- (d) Store data
- (e) Manage software updates

Q18. What is the shortcut key to save a document in MS Word?

- (a) Ctrl + P
- (b) Ctrl + S
- (c) Ctrl + A
- (d) Ctrl + Z
- (e) Ctrl + X

Q19. Word processors and spreadsheet applications belong to which category of software?

- (a) System Software
- (b) Utility Software
- (c) Application Software
- (d) Security Software
- (e) Firmware

Q20. The unit of the timer watch fitted into the microprocessor is measured in?

- (a) Volts
- (b) Amperes
- (c) Hertz
- (d) Ohms
- (e) Joules

Q21. Which of the following primarily stores data temporarily in a computer?

- (a) CPU
- (b) CD-ROM
- (c) RAM
- (d) Flash Drive
- (e) ROM

Q22. Ctrl and Alt are examples of what type of keys in a keyboard?

- (a) Function Keys
- (b) Modifier Keys
- (c) Navigation Keys
- (d) Toggle Keys
- (e) Numeric Keys

Q23. What is the rectangular area of the computer screen used for displaying information and running programs called?

- (a) Taskbar
- (b) Menu Bar
- (c) Window
- (d) Desktop
- (e) Toolbar

Q24. Which of the following is not a threat to computers?

- (a) SQL Injection
- (b) Burn
- (c) DOS Attack
- (d) Phishing
- (e) Power Surge

Q25. In the term CISC, what does the letter I stand for?

- (a) Internet
- (b) Integration
- (c) Instruction
- (d) Information
- (e) Interface

Q26. Convert the decimal number 15 into a binary number.

- (a) 1001
- (b) 1100
- (c) 1010
- (d) 1111
- (e) 1000

Q27. India's first computer was installed in which city?

- (a) Mumbai
- (b) Kolkata
- (c) Bengaluru
- (d) Delhi
- (e) Chennai

Q28. Which of the following is the search engine developed by Microsoft?

- (a) Google
- (b) Yahoo
- (c) Bing
- (d) DuckDuckGo
- (e) Baidu

Q29. Who is known as the father of the Internet?

- (a) Tim Berners-Lee
- (b) Vint Cerf
- (c) Bill Gates
- (d) Steve Jobs
- (e) Marc Andreessen

Q30. Which of the following is not a type of printer?

- (a) Word Matrix
- (b) Dot Matrix
- (c) Laser
- (d) Inkjet
- (e) Thermal

Q31. Which shortcut key is used to find and replace text in a document?

- (a) Ctrl + F
- (b) Ctrl + H
- (c) Ctrl + R
- (d) Ctrl + G
- (e) Ctrl + P

Q32. What is half a byte called?

- (a) Nibble
- (b) Bit
- (c) Word
- (d) Kilobyte
- (e) Megabyte

Q33. Which shortcut key is used to add a new slide in Microsoft PowerPoint?

- (a) Ctrl + N
- (b) Ctrl + M
- (c) Ctrl + S
- (d) Ctrl + P
- (e) Ctrl + T

Q34. Which of the following is the fastest type of memory?

- (a) CD
- (b) DVD
- (c) SSD
- (d) Flash Drive
- (e) Hard Disk

Q35. Which of the following is the shortcut key to refresh a web page?

- (a) Ctrl + F6
- (b) Ctrl + R
- (c) Ctrl + F
- (d) Alt + F4
- (e) Shift + R

Q36. Which of the following is a feature of a Dot Matrix Printer?

- (a) Coloured Printing
- (b) High-Resolution Printing
- (c) Prints Multiple Copies using Carbon Paper
- (d) Quiet Printing
- (e) Laser Precision

Q37. From which of the following tabs in MS PowerPoint can you add a table, chart, or picture?

- (a) Home
- (b) Insert
- (c) Design
- (d) View
- (e) Review

Q38. Which feature groups emails with the same subject line into a conversation in email clients?

- (a) Spam Filter
- (b) Conversation View
- (c) Thread Sorting
- (d) Email Archiving
- (e) Priority Inbox

Q39. Which feature automatically fills in information on web pages?

- (a) Autofill
- (b) Cache
- (c) Cookies
- (d) Bookmark
- (e) Pop-up Blocker

Q40. Which of the following is a popular open-source operating system?

- (a) Windows
- (b) macOS
- (c) Linux
- (d) iOS
- (e) Splunk

Q41. Where is the document temporarily stored during working on a PC?

- (a) Hard Disk
- (b) CD-ROM
- (c) RAM
- (d) ROM
- (e) USB Drive

Q42. What is the primary purpose of Microsoft Access?

- (a) Word Processing
- (b) Spreadsheet Creation
- (c) Database Management
- (d) Graphic Design
- (e) Email Management

Q43. Which of the following is used in memory storage to maintain the state of a single bit of data?

- (a) Register
- (b) Cache
- (c) Flip-Flop
- (d) RAM
- (e) SSD

Q44. Convert the binary number $(101010)_2$ to its decimal equivalent.

- (a) 8
- (b) 32
- (c) 22
- (d) 42
- (e) 24

Q45. Which of the following computer generations used vacuum tubes?

- (a) Second Generation
- (b) Third Generation
- (c) Fourth Generation
- (d) First Generation
- (e) Fifth Generation

Q46. Which component temporarily stores data while the CPU performs ALU operations?

- (a) HDD
- (b) Accumulator
- (c) RAM
- (d) Control Unit
- (e) ROM

Q47. Which of the following is not hardware?

- (a) Hard Disk
- (b) Monitor
- (c) Printer
- (d) Python
- (e) Motherboard

Q48. In an email service, which feature is used to mark important emails for easy access?

- (a) Archive
- (b) Star Mark
- (c) Draft
- (d) Folder
- (e) Priority Label

Q49. Which of the following is not correct for non-volatile memory?

- (a) Data is retained even after the PC is turned off.
- (b) It is commonly used for long-term storage.
- (c) Data is lost after the PC is off.
- (d) Non-volatile memory includes devices like SSDs and Hard Drives.
- (e) It is slower than volatile memory like RAM.

Q50. What is the use of middleware?

- (a) Middleware is used for managing hardware resources.
- (b) Middleware enables the processing of multiple synchronous transactions between applications.
- (c) Middleware provides direct access to system memory for faster processing.
- (d) Middleware is used for storing data permanently.
- (e) Middleware is responsible for user interface design.

Q51. Which of the technology is used in the transaction of Bitcoin cryptocurrency?

- (a) Machine Learning
- (b) Artificial Intelligence
- (c) Data Mining
- (d) Blockchain
- (e) Cloud Computing

Q52. What type of malicious software appears to be legitimate but can actually cause harm to your computer or network?

- (a) Virus
- (b) Trojan
- (c) Worm
- (d) Spyware
- (e) Ransomware

Q53. Wireless USB is used in which of the following networks?

- (a) LAN (Local Area Network)
- (b) WAN (Wide Area Network)
- (c) PAN (Personal Area Network)
- (d) MAN (Metropolitan Area Network)
- (e) SAN (Storage Area Network)

Q54. Which of the following is not an antivirus software?

- (a) McAfee
- (b) Norton
- (c) CodeRed
- (d) Kaspersky
- (e) AVG

Q55. Which of the following performs the arithmetic and logical operations in a CPU?

- (a) ALU
- (b) Memory Unit
- (c) Control Unit
- (d) Cache
- (e) Register

Q56. Which of the following symbol is used to combine the contents of two or more cells in MS Excel?

- (a) %
- (b) +
- (c) &
- (d) =
- (e) *

Q57. Which type of malware is designed to collect information about a user without their knowledge?

- (a) Virus
- (b) Worm
- (c) Spyware
- (d) Ransomware
- (e) Trojan

Q58. Which of the following has the shortest access time of all memory units?

- (a) RAM
- (b) Cache
- (c) Hard Disk
- (d) SSD
- (e) CD-ROM

Q59. What is the full form of ATX?

- (a) Advanced Technology eXtended
- (b) Automatic Technology Expansion
- (c) Advanced Transfer Extension
- (d) Accelerated Technology X-factor
- (e) Auxiliary Technology Expansion

Q60. Ransomware is a type of:

- (a) Application Software
- (b) Encryption Malware
- (c) Decryption Malware
- (d) Antivirus Software
- (e) Protection Malware

Q61. What is the function of the Control Unit?

- (a) Interprets instructions
- (b) Prints data to a printer
- (c) Provides internet access
- (d) Adjusts screen resolution
- (e) Compresses files for storage

Q62. Which of the following are the most prominent and widely used IP protocols today?

- (a) IPv2 & IPv3
- (b) IPv5 & IPv7
- (c) IPv4 & IPv6
- (d) IPv1 & IPv7
- (e) IPv2 & IPv5

Q63. What is a Rootkit?

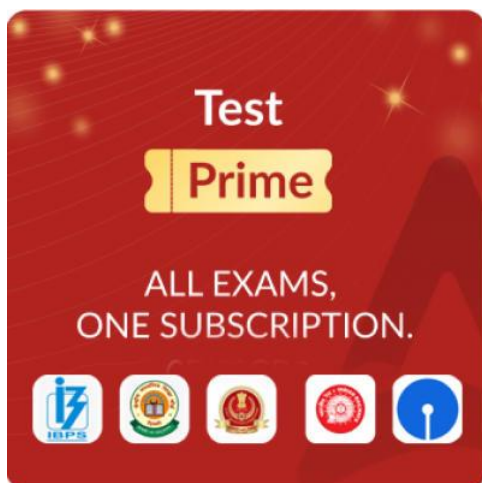
- (a) A type of software that hides malicious activities on a system
- (b) A security software used to protect sensitive data
- (c) A tool for enhancing system performance
- (d) A legitimate application used for system recovery
- (e) An antivirus used to detect malware

Q64. A stylus is a pen-like device that works using which technology?

- (a) Laser
- (b) Pointer
- (c) UV Rays
- (d) Capacitive Touch
- (e) Magnetic Field

Q65. What is the use of an interrupt in a computer system?

- (a) To stop CPU tasks
- (b) To allocate memory
- (c) To handle urgent tasks and I/O
- (d) To save data
- (e) To protect against malware



Q66. Which equipment is used to increase the speed of a computer?

- (a) Increasing storage on the hard disk
- (b) Extending the size of RAM
- (c) Adding more USB ports
- (d) Installing antivirus software
- (e) Replacing the power supply

Q67. A handwritten signature can be converted into an image using which of the following devices?

- (a) Barcode Scanner
- (b) Graphic Tablet
- (c) Joystick
- (d) Optical Mouse
- (e) Trackball

Q68. Which of the following is the use of SMTP?

- (a) File Transfer
- (b) Web Browsing
- (c) Email Transmission
- (d) Data Encryption
- (e) Remote Access

Q69. Which of the following is a System Software?

- (a) Microsoft Word
- (b) Photoshop
- (c) UNIX
- (d) VLC Media Player
- (e) Chrome

Q70. Which of the following ports is commonly used to connect an internal hard disk drive (HDD) to a motherboard?

- (a) USB
- (b) HDMI
- (c) SATA
- (d) Ethernet
- (e) VGA

Q71. Which type of malware can spread across networks without attaching itself to a host file?

- (a) Virus
- (b) Worm
- (c) Trojan
- (d) Spyware
- (e) Adware

Q72. What is a phishing attack?

- (a) An attack that involves sending fraudulent emails to steal personal information
- (b) A technique used to block websites
- (c) A method to encrypt data during transmission
- (d) A type of malware that infects files
- (e) A process for scanning networks for vulnerabilities

Q73. How can parents monitor the type of content their children are accessing online?

- (a) Using Activity Logs
- (b) Using Antivirus Software
- (c) Disabling Internet Access
- (d) Installing External Storage
- (e) Using Word Processors

Q74. What is the difference between IMAP and POP3 in email protocols?

- (a) IMAP deletes emails after downloading, while POP3 keeps them on the server
- (b) IMAP allows syncing across multiple devices, while POP3 downloads emails to one device
- (c) IMAP is used for sending emails, while POP3 is used for receiving emails
- (d) IMAP encrypts emails, while POP3 does not
- (e) IMAP works offline, while POP3 requires an active internet connection

Q75. What does whitelisting mean in parental lock settings?

- (a) Blocking specific websites
- (b) Allowing only approved websites or content
- (c) Monitoring all online activities
- (d) Disabling internet access
- (e) Tracking time spent online

Q76. Which of the following is related to non-volatile memory?

- (a) RAM
- (b) Cache
- (c) SSD
- (d) Registers
- (e) CPU

Q77. Which of the following technology is used in optical disks to store data?

- (a) Magnetic Field
- (b) Laser
- (c) Electrical Charge
- (d) Capacitive Touch
- (e) UV Rays

Q78. What is a macro in MS Excel?

- (a) A built-in formula to perform calculations
- (b) A shortcut for creating charts
- (c) A feature to automate repetitive tasks
- (d) A formatting tool for adjusting cell size
- (e) A tool to sort data in ascending order

Q79. How do Virtual Reality (VR), Augmented Reality (AR), and Artificial Intelligence (AI) enhance human understanding of complex concepts?

- (a) By replacing human decision-making entirely
- (b) By creating immersive environments and intelligent systems that help visualize and process information
- (c) By automating all human tasks
- (d) By limiting access to information based on user preferences

(e) By focusing only on physical task assistance

Q80. In Quantum Computing, which element is used in place of traditional bits to represent and process information?

- (a) Classical Bits
- (b) Qubits
- (c) Registers
- (d) Cache
- (e) Transistors

Solution

S1. Ans.(b)

Sol. Hacking refers to unauthorized access to a computer system or network with malicious intent. Hackers often exploit system vulnerabilities to gain access and manipulate or steal data. This illegal activity can lead to significant data breaches, loss of privacy, and financial damage.

Important Key Points:

1. **Hacking** involves breaking into systems to cause harm or steal sensitive information.
2. This act is illegal and can result in severe legal consequences.

Knowledge Booster:

- **Phishing** is a type of social engineering attack where attackers trick users into providing sensitive information through fake emails or websites.
- **Data Mining** is the process of analyzing large datasets to find patterns and insights, not related to unauthorized access.
- **Spoofing** refers to disguising a communication source to appear as a trusted entity, but it does not involve direct unauthorized access.
- **Firewall Breach** happens when a firewall is bypassed, but it's a specific type of attack, not necessarily related to hacking with malicious intent.

S2. Ans.(a)

Sol. Phishing is a common method used by attackers to steal personal information, such as user IDs, passwords, and other sensitive data. Attackers typically use fake emails, websites, or messages that mimic legitimate organizations to trick individuals into revealing their credentials.

Important Key Points:

1. **Phishing** is a form of social engineering that aims to deceive users into providing confidential information.
2. It often involves the use of fake websites or email links that appear legitimate to users.

Knowledge Booster:

- **Data Encryption** is used to protect sensitive data, not to steal it. It ensures that data is secure during transmission.
- **Cloud Storage** is a service used to store data remotely and securely; it is not related to identity theft.

- **Firewall** is a security measure used to block unauthorized access to networks, not to steal information.
- **Debugging** is the process of identifying and fixing errors in software code, and it has no relation to identity theft.

S3. Ans.(b)

Sol. CC (Carbon Copy) and BCC (Blind Carbon Copy) are terms used in email communication. **CC** allows the sender to send a copy of the email to recipients while making it visible to all other recipients. **BCC** allows the sender to send the same email to multiple recipients, but the recipients in the BCC field remain hidden from each other.

Important Key Points:

1. **CC** sends a copy of the email to other recipients, and all recipients can see who received the email.
2. **BCC** hides the recipients from each other, providing privacy in mass email communication.

Knowledge Booster:

- **Carbon Copy (CC)** is used when you want others to be informed of the email but don't require direct action from them.
- **Blind Carbon Copy (BCC)** is used to protect the privacy of recipients when sending emails to large groups or when you don't want recipients to see who else received the email.
- **Central Communication** and **Clear Copy** are not related to email terms.
- **Backup Communication** and **Blind Contact Copy** are incorrect and not used in email systems.

S4. Ans.(a)

Sol. A system hang or freeze is commonly caused by **CPU Overload**, where the processor is overwhelmed with too many tasks, preventing it from responding to new inputs. When the CPU is overloaded, the system becomes unresponsive, and users are unable to interact with the applications or operating system until the issue is resolved.

Important Key Points:

1. **CPU Overload** occurs when the processor is tasked with more operations than it can handle, leading to unresponsiveness.
2. It is one of the most common causes of system freezes or hangs, especially when running multiple heavy applications.

Knowledge Booster:

- **System Reboot** occurs when the system is restarted, but it is not a typical result of a system hang unless manually initiated.
- **Blue Screen of Death (BSOD)** indicates a critical system error in Windows, which causes the system to crash, but it is different from a freeze.
- **Application Crash** refers to a single program failing, not the entire system freezing.

S5. Ans.(c)

Sol. Microsoft Outlook is a popular email client used for sending and receiving emails. It is part of the Microsoft Office suite and provides features like calendar management, task scheduling, and contact management, making it a comprehensive tool for communication and productivity.

Important Key Points:

1. **Microsoft Outlook** allows users to manage emails, contacts, calendars, and tasks in one integrated platform.
2. It supports multiple email accounts and integrates well with other Microsoft Office applications.

Knowledge Booster:

- **Adobe Photoshop** is used for graphic design and image editing, not for email management.
- **Microsoft Word** is primarily used for word processing and document creation, not for emails.
- **VLC Media Player** is a multimedia player used for playing audio and video files, not emails.
- **AutoCAD** is a software application used for computer-aided design (CAD) and drafting, not for email communication.

S6. Ans.(b)

Sol. In a Gmail address, the "@" sign separates the **username** from the **domain**. For example, in the email address **user@gmail.com**, "user" is the username, and "gmail.com" is the domain. The "@" symbol is used universally in email addresses to distinguish between the local part (username) and the domain part (email provider).

Important Key Points:

1. The "@" sign is a standard separator between the username and the email service provider's domain name.
2. Every valid email address has this structure: **username@domain**.

Knowledge Booster:

- **Username and password** are not separated by the "@" sign; they are used together for authentication but are kept separate from the email address format.
- **Email ID and contact number** are unrelated to the structure of an email address.
- **Sender and recipient** are defined in the "To" and "From" fields of an email, not by the "@" sign.
- **Local and international servers** are not distinguished by the "@" sign; the domain specifies the email provider's server.

S7. Ans.(b)

Sol. The **Freeze Panes** feature in MS Excel allows you to lock specific rows or columns so that they remain visible even when you scroll through other parts of the spreadsheet.

- For example, freezing the top row ensures that the headers remain visible as you navigate through the worksheet.
- This feature is especially useful for large datasets to keep key references in view.

Important Key Points:

1. To enable **Freeze Panes**, go to the **View** tab and select **Freeze Panes**.
2. Options include:
 - **Freeze Top Row:** Locks the first row.
 - **Freeze First Column:** Locks the first column.
 - **Custom Freeze:** Locks specific rows and columns based on your selection.
3. **Freeze Panes** enhances navigation and understanding of large datasets.

Knowledge Booster:

1. **Headers:** Refer to the first row (default) and are only visible when scrolling vertically unless frozen.
2. **Gridlines:** Provide structure to cells but do not stay fixed during scrolling.
3. **Active Cell:** The currently selected cell, which changes as you move through the sheet.

S8. Ans.(d)

Sol. Charles Babbage is widely recognized as the "Father of Computers." He designed the concept of a programmable computer and is credited with inventing the **Analytical Engine**, an early mechanical computer that laid the foundation for modern computing.

Important Key Points:

1. **Charles Babbage** conceptualized and designed the first mechanical computer, the **Analytical Engine**.
2. His work laid the groundwork for the development of modern programmable computers.

Knowledge Booster:

- **Alan Turing** is considered the father of theoretical computer science and artificial intelligence, but not the father of computers.
- **Steve Jobs** co-founded Apple and was instrumental in the personal computer revolution, but he is not the father of computers.
- **Bill Gates** is the co-founder of Microsoft and played a key role in software development, particularly with the Windows operating system, but not the father of computers.
- **John von Neumann** contributed to the architecture of modern computers, particularly the **stored-program concept**, but he is not referred to as the father of computers.

S9. Ans.(b)

Sol. A **Worm** is a type of malware that can self-replicate and propagate across networks without the need for a host program. Worms spread by exploiting vulnerabilities in network systems and can cause widespread disruption by consuming bandwidth and overloading systems.

Important Key Points:

1. **Worms** can replicate independently and spread across networks, making them highly contagious.
2. They do not require a host file or program to execute and spread, unlike viruses.

Knowledge Booster:

- **Virus:** A virus needs a host file or program to replicate and spread. It infects files and requires user action to spread.
- **Trojan Horse:** Trojans disguise themselves as legitimate software but do not replicate or spread on their own.
- **Spyware:** Spyware monitors user activities without self-replication capabilities.
- **Ransomware:** Ransomware encrypts files and demands payment for decryption but does not self-replicate without assistance.

S10. Ans.(c)

Sol. **MS Word** is a word processing software developed by Microsoft, primarily used for creating, editing, formatting, and printing documents. It is widely used in offices, schools, and homes for tasks like writing reports, creating resumes, and drafting letters.

Important Key Points:

1. **MS Word** is specifically designed for creating text-based documents with various formatting options.
2. It allows users to add images, tables, and charts, making it a versatile tool for document creation.

Knowledge Booster:

- **MS Excel** is used for creating spreadsheets and performing data analysis, not for document creation.
- **MS PowerPoint** is used for creating presentations, not for text-based documents.
- **MS Access** is a database management system, not intended for document creation.
- **Adobe Photoshop** is a graphic design tool used for editing images, not for document creation.

S11. Ans.(d)

Sol. The concentric circles on a hard disk are called **Tracks**. These tracks are used to store and organize data on the surface of the hard disk. Each track is divided into smaller units called sectors, which contain the actual data.

Important Key Points:

1. **Tracks** are circular paths on the surface of a hard disk where data is magnetically recorded.
2. Data on hard disks is organized into tracks, which are further subdivided into sectors for easier data access.

Knowledge Booster:

- **Sectors** are subdivisions of a track and contain the actual data storage units.
- **Clusters** refer to groups of sectors that are treated as a unit for data storage.
- **Blocks** are the basic units of data storage in some file systems, particularly in memory storage.
- **Cylinders** are a set of tracks located directly above and below each other on a hard disk platter.

S12. Ans.(c)

Sol. **FORTRAN** is example of **High-Level Programming Languages**. High-level languages are designed to be easy to read and write, abstracting away the hardware details of a computer. These languages are closer to human languages and are easier for developers to understand and use for complex programming tasks.

Important Key Points:

1. **FORTRAN** (Formula Translation) was one of the earliest high-level languages, designed for scientific and engineering computations.
2. **BASIC** (Beginner's All-purpose Symbolic Instruction Code) was designed to simplify programming for beginners and students.
3. **COBOL** (Common Business-Oriented Language) is a **High-Level Programming Language**. It was primarily designed for business, finance, and administrative systems for companies and governments. COBOL is known for its readability and is often used in legacy systems for handling large amounts of data processing.

Knowledge Booster:

- **Assembly Language** is a low-level programming language that is closer to machine code, not high-level like FORTRAN and BASIC.
- **Machine Language** is the lowest-level programming language, consisting of binary code, which is directly understood by a computer's CPU.
- **Scripting Languages** like Python and JavaScript are used for automating tasks but are different from traditional high-level programming languages.
- **Low-Level Language** refers to languages like assembly or machine language that are closer to hardware and less abstracted.

S13. Ans.(c)

Sol. A **Scanner** is a device used to convert hard copy documents, such as printed papers or photographs, into digital copies. The scanner captures the image or text from the physical document and transforms it into a digital format that can be stored on a computer.

Important Key Points:

1. **Scanners** digitize hard copy documents and store them in formats like PDF, JPEG, or TIFF.
2. The digital copy can be edited, stored, or shared electronically after scanning.

Knowledge Booster:

- **Printers** are used to convert digital files into physical hard copies, the reverse of scanning.
- **Monitors** display digital content but are not involved in converting physical documents to digital form.
- **CPUs** process data but are not used for converting documents.
- **Keyboards** are input devices used for typing, not for document conversion.

S14. Ans.(c)

Sol. The shortcut key **Ctrl + A** is used to select all the content in a document, whether it's text, images, or other elements. This command works in most applications, including word processors, web browsers, and file explorers, allowing users to quickly highlight all content with a single key combination.

Important Key Points:

1. **Ctrl + A** is the universal shortcut for selecting everything in a document or window.
2. It saves time by avoiding the need to manually highlight content using the mouse.

Knowledge Booster:

- **Ctrl + C** is the shortcut for copying selected content.
- **Ctrl + X** is the shortcut for cutting selected content.
- **Ctrl + S** is used for saving the current document.
- **Ctrl + V** is the shortcut for pasting copied or cut content.

S15. Ans.(a)

Sol. The shortcut key **Ctrl + Home** is used to jump to the beginning of a document in **MS Word**. This combination instantly moves the cursor to the very first character of the document, no matter where you are within the file.

Important Key Points:

1. **Ctrl + Home** is a quick way to navigate to the start of a document, saving time from scrolling manually.
2. It is a standard shortcut across many word processing applications.

Knowledge Booster:

- **Ctrl + End** moves the cursor to the end of the document, not the beginning.
- **Ctrl + B** is used to bold selected text.
- **Alt + Tab** switches between open applications but does not affect document navigation.
- **Shift + Home** selects all text from the current cursor position to the beginning of the line, not the document.

S16. Ans.(b)

Sol. Bluetooth is a technology used for wireless file transfer within a short range, typically up to 10 meters. It allows devices like smartphones, laptops, and tablets to share files, photos, and data without needing cables or a physical connection.

Important Key Points:

1. **Bluetooth** provides wireless connectivity for file sharing between devices over short distances.
2. It is widely used in mobile devices, laptops, and even peripheral devices like headphones and speakers for wireless communication.

Knowledge Booster:

- **USB Cable** requires a physical connection for data transfer and does not offer wireless capabilities.
- **Ethernet** is used for wired networking and does not facilitate wireless file transfer.
- **HDMI** is used to transmit audio and video signals, not for file transfer.
- **CD-ROM** is a physical medium used to store data but does not support wireless transfer.

S17. Ans.(b)

Sol. A **firewall** is a network security system designed to **block unauthorized access** while permitting authorized communications. It acts as a barrier between a trusted internal network and untrusted external networks, such as the internet, by filtering incoming and outgoing traffic based on predetermined security rules.

Important Key Points:

1. **Firewalls** are essential for preventing cyberattacks and unauthorized access to sensitive data on a network.
2. Firewalls can be implemented in both hardware and software forms, providing protection for individual devices or entire networks.

Knowledge Booster:

- **Monitoring CPU performance** is not the function of a firewall; this task is handled by system monitoring tools.
- **Increasing internet speed** is not a function of a firewall; it works to secure the network, not optimize performance.
- **Storing data** is the job of storage devices, not firewalls.
- **Managing software updates** is a task performed by update management tools, not firewalls.

S18. Ans.(b)

Sol. The shortcut key **Ctrl + S** is used to save a document in **MS Word**. This command helps you quickly save any changes made to the document, ensuring that your work is not lost.

Important Key Points:

1. **Ctrl + S** is a universal shortcut for saving documents in many applications, not just MS Word.
2. Regularly using **Ctrl + S** helps to avoid losing unsaved work due to system crashes or accidental closures.

Knowledge Booster:

- **Ctrl + P** is used to print a document.
- **Ctrl + A** is used to select all content in the document.
- **Ctrl + Z** is the shortcut for undoing the last action.
- **Ctrl + X** is used to cut the selected content.

S19. Ans.(c)

Sol. Word processors (e.g., MS Word) and **spreadsheet applications** (e.g., MS Excel) are examples of **Application Software**. These types of software are designed to help users perform specific tasks, such as writing documents or organizing data in tabular form. Application software runs on top of system software and caters to user-specific functions.

Important Key Points:

1. **Application Software** includes programs designed for end-users, such as word processing, spreadsheets, and presentations.
2. They enhance user productivity by providing tools for tasks like data analysis and document creation.

Knowledge Booster:

- **System Software** includes the operating system, which manages hardware and basic system operations, not user-specific tasks.
- **Utility Software** helps maintain and optimize the computer's performance, such as antivirus or disk management tools.
- **Security Software** is designed to protect the system from malware and cyber threats.
- **Firmware** is low-level software stored on hardware components to control device functionality.

S20. Ans.(c)

Sol. The unit of measurement for the timer watch in a microprocessor is **Hertz (Hz)**. This measures the clock frequency, which indicates how many cycles per second the timer operates. The microprocessor's internal clock governs the speed at which the microprocessor executes instructions, and it is typically measured in millions or billions of Hertz (MHz or GHz).

Important Key Points:

1. **Hertz (Hz)** is the standard unit for frequency, including the timing functions within a microprocessor.
2. A higher clock frequency (measured in Hertz) allows for faster execution of instructions.

Knowledge Booster:

- **Volts** measure electrical potential or voltage, not frequency.
- **Amperes** measure electric current, not time-related functions.
- **Ohms** measure resistance in an electrical circuit, not the frequency of a timer.
- **Joules** measure energy, not clock frequency in a microprocessor.

S21. Ans.(c)

Sol. RAM (Random Access Memory) is the primary storage in a computer used for **temporarily storing data**. It holds data and instructions that are currently being used by the CPU for processing. RAM is volatile, meaning its contents are lost when the computer is turned off.

Important Key Points:

1. **RAM** stores data temporarily and allows quick read and write access to support active tasks.
2. It is essential for multitasking, as it provides the CPU with fast access to necessary data.

Knowledge Booster:

- **CPU** (Central Processing Unit) processes data but does not store it temporarily.
- **CD-ROM** is a read-only storage medium, not used for temporary data storage.
- **Flash Drive** is used for portable, non-volatile storage, not temporary memory.
- **ROM** (Read-Only Memory) contains permanent data for system boot-up and other critical functions but does not store temporary data.

S22. Ans.(b)

Sol. Ctrl (Control) and **Alt** (Alternate) are known as **Modifier Keys**. These keys are used in combination with other keys to perform specific functions or shortcuts, such as **Ctrl + C** for copying and **Alt + Tab** for switching between open applications. Modifier keys alter the function of other keys when pressed together.

Important Key Points:

1. **Modifier Keys** like Ctrl and Alt enable keyboard shortcuts that help users perform tasks more efficiently.
2. They do not perform any action on their own but modify the function of other keys when used together.

Knowledge Booster:

- **Function Keys** (e.g., F1, F2) perform specific tasks, often associated with system or application functions.
- **Navigation Keys** (e.g., arrow keys) are used to move the cursor around a document or screen.
- **Toggle Keys** (e.g., Caps Lock) switch between two states (on/off) when pressed.
- **Numeric Keys** are used to input numbers and are found on the number pad.

S23. Ans.(c)

Sol. A Window is the rectangular area on the computer screen that displays information and allows users to run programs. In operating systems like Microsoft Windows, multiple windows can be opened at once, enabling users to view and interact with different applications simultaneously.

Important Key Points:

1. A **Window** allows users to view and interact with a program or document on the screen.
2. Multiple windows can be resized, minimized, or closed as needed, enhancing multitasking.

Knowledge Booster:

- The **Taskbar** is located at the bottom of the screen and shows open applications but is not used for displaying program content.
- The **Menu Bar** provides access to program functions and commands but is not the area where content is displayed.
- The **Desktop** is the main screen area where icons and shortcuts are placed, not where programs run.
- The **Toolbar** is a set of icons or buttons that provide quick access to functions within a window.

S24. Ans.(b)

Sol. Burn is not a computer security threat. It refers to physical damage, such as overheating or hardware failure, not a cyberattack or software vulnerability. The other options are all forms of cyber threats that can compromise a computer's security or functionality.

Important Key Points:

1. **SQL Injection** is a type of attack that targets databases by injecting malicious SQL queries.
2. **DOS (Denial of Service) Attack** is a method of overwhelming a system with traffic to make it unavailable to users.
3. **Phishing** involves tricking users into revealing sensitive information such as passwords or credit card details.

Knowledge Booster:

- **Power Surge** can damage hardware but is not classified as a cyber threat. It can result from electrical issues but does not involve malicious intent.
- **SQL Injection** exploits vulnerabilities in applications that use SQL databases.
- **DOS Attack** disrupts service by overloading a network or server.
- **Phishing** uses deceptive emails or websites to obtain sensitive information.

S25. Ans.(c)

Sol. In **CISC**, which stands for **Complex Instruction Set Computer**, the letter **I** refers to **Instruction**. CISC is a type of computer architecture where single instructions can execute multiple low-level operations, such as loading from memory, performing arithmetic, and storing results in memory.

Important Key Points:

1. **CISC** architecture allows complex instructions to perform multiple operations, reducing the number of instructions per program.

2. It contrasts with **RISC** (Reduced Instruction Set Computer), where simpler instructions are used, and more are required to perform a task.

Knowledge Booster:

- **Internet** refers to the global network, unrelated to CISC architecture.
- **Integration** involves combining components but is not relevant in the context of CISC.
- **Information** is not specific to computer architecture.
- **Interface** refers to the interaction between systems but is not part of the CISC acronym.

S26. Ans.(d)

Sol. The decimal number **15** can be converted to binary by repeatedly dividing the number by 2 and recording the remainders. Starting with 15, the binary equivalent is:

- $15 \div 2 = 7$, remainder 1
- $7 \div 2 = 3$, remainder 1
- $3 \div 2 = 1$, remainder 1
- $1 \div 2 = 0$, remainder 1

Reading the remainders from bottom to top, the binary representation of **15** is **1111**.

Important Key Points:

1. Binary numbers consist of only 0s and 1s, representing powers of 2.
2. The binary number **1111** represents $1 \times 2^3 + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 = 8 + 4 + 2 + 1 = 15$.

Knowledge Booster:

- **1001** is the binary representation for 9.
- **1100** is the binary representation for 12.
- **1010** is the binary representation for 10.
- **1000** is the binary representation for 8.

S27. Ans.(b)

Sol. India's first computer, **HEC-2M**, was installed at the **Indian Statistical Institute (ISI)** in **Kolkata** in 1955. It was one of the earliest computers used in the country for statistical and scientific purposes. The installation of this computer marked the beginning of computing in India and was a significant development in the field of technology.

Important Key Points:

1. **HEC-2M** was among the first computers used in India and contributed greatly to research and academic advancements.
2. Kolkata (then Calcutta) became the initial hub for computing in India with this installation.

Knowledge Booster:

- **Mumbai** is known for being a financial hub, but it didn't host the first computer in India.
- **Bengaluru** is now the IT capital of India but didn't have the first computer.

- **Delhi** and **Chennai** are significant cities, but neither was home to India's first computer.

S28. Ans.(c)

Sol. **Bing** is the search engine developed by Microsoft. It was launched in 2009 as a successor to earlier Microsoft search engines, and it offers web, image, and video search capabilities. Bing is integrated into several Microsoft services and products, including the Windows operating system and the Edge web browser.

Important Key Points:

1. **Bing** is Microsoft's answer to other popular search engines like Google and Yahoo.
2. It is used as the default search engine in Microsoft's Edge browser.

Knowledge Booster:

- **Google** is developed by Google LLC, not Microsoft.
- **Yahoo** is another search engine, but it is not owned by Microsoft.
- **DuckDuckGo** is known for its focus on privacy but is not affiliated with Microsoft.
- **Baidu** is a Chinese search engine, not related to Microsoft.

S29. Ans.(b)

Sol. **Vint Cerf** is widely recognized as the "Father of the Internet." Along with Robert E. Kahn, he developed the **TCP/IP** protocol, which is the fundamental technology that powers the Internet. His work laid the foundation for the modern global network, allowing computers to communicate over vast distances.

Important Key Points:

1. **Vint Cerf** and **Robert E. Kahn** co-designed the **TCP/IP** protocol suite, which enabled the creation of the Internet.
2. The development of this protocol in the 1970s was crucial for establishing the foundation for the Internet as we know it today.



Knowledge Booster:

- **Tim Berners-Lee** is credited with inventing the World Wide Web (WWW), not the Internet itself.
- **Bill Gates** co-founded Microsoft but is not related to the invention of the Internet.
- **Steve Jobs** co-founded Apple, but he is not considered a pioneer of the Internet.
- **Marc Andreessen** co-authored Mosaic, one of the first web browsers, but is not the father of the Internet.

S30. Ans.(a)

Sol. **Word Matrix** is not a type of printer. It is an incorrect term in this context. **Dot Matrix**, **Laser**, **Inkjet**, and **Thermal** are all legitimate types of printers used for different printing technologies.

Important Key Points:

1. **Dot Matrix** printers use a print head that moves back and forth and prints by impact, pressing an ink-soaked ribbon against the paper.
2. **Laser** printers use a laser beam to create an image on a drum, which is then transferred to paper using toner.
3. **Inkjet** printers spray tiny droplets of ink onto paper to form text or images.
4. **Thermal** printers use heat to transfer images onto thermal paper.

Knowledge Booster:

- **Word Matrix** does not exist as a printer type and is unrelated to any printing technology.
- **Dot Matrix** printers are among the oldest impact printers still in use for specific purposes.
- **Laser** printers are known for high-speed and high-quality printing, especially in offices.
- **Inkjet** printers are commonly used in homes and small offices for color and photo printing.
- **Thermal** printers are used in point-of-sale systems and for printing receipts.

S31. Ans.(b)

Sol. The shortcut key **Ctrl + H** is used to open the **Find and Replace** dialog box in most word processing programs, including MS Word. This allows users to search for specific text in the document and replace it with new text.

Important Key Points:

1. **Ctrl + H** opens the Find and Replace tool, enabling users to efficiently replace instances of text or formatting throughout the document.
2. This shortcut enhances productivity by automating the process of finding and modifying text.
3. **F5** can be used to open the **Find and Go To** window, allowing users to jump to specific locations within the document, but it does not include the replace function.

Knowledge Booster:

- **Ctrl + F** is used to find specific text in a document but does not open the replace function.
- **Ctrl + R** is used to align text to the right in most word processors.
- **Ctrl + G** is used to go to a specific page, section, or line in the document.
- **Ctrl + P** is the shortcut for printing the document.

S32. Ans.(a)

Sol. A **Nibble** is half of a byte, consisting of 4 **bits**. A byte is made up of 8 bits, so half of that is 4 bits, which is referred to as a nibble. Nibbles are commonly used in computing, particularly in systems that work with hexadecimal numbers.

Important Key Points:

1. A **Nibble** is composed of 4 bits, and 2 nibbles make up a byte.
2. Nibbles are often used in digital systems and hexadecimal representations, where each hexadecimal digit corresponds to 4 bits (or 1 nibble).

Knowledge Booster:

- A **Bit** is the smallest unit of data in computing, representing a single binary value of 0 or 1.
- A **Word** refers to a group of bits processed as a single unit by the CPU, typically larger than a byte.
- **Kilobyte** is a unit of data storage equal to 1024 bytes.
- **Megabyte** is a unit of data storage equal to 1024 kilobytes.

S33. Ans.(b)

Sol. The shortcut key **Ctrl + M** is used to add a new slide in **Microsoft PowerPoint**. This allows users to quickly insert a new slide without navigating through the menus, enhancing productivity while creating presentations.

Important Key Points:

1. **Ctrl + M** directly adds a new slide in PowerPoint, making it a crucial shortcut for presentation design.
2. This shortcut works universally across most versions of PowerPoint, making it widely applicable.

Knowledge Booster:

- **Ctrl + N** is used to create a new presentation, not to add a slide.
- **Ctrl + S** is used to save the presentation.
- **Ctrl + P** is used to print the presentation.
- **Ctrl + T** is used for opening the Font dialog box in many applications, but not for adding a new slide.

S34. Ans.(c)

Sol. **SSD (Solid State Drive)** is the fastest memory among the options provided. SSDs use flash memory and have no moving parts, which allows them to access and transfer data much faster than traditional storage media like CDs, DVDs, or hard disks.

Important Key Points:

1. **SSDs** provide significantly faster read/write speeds compared to optical media (CD/DVD) and traditional hard disks.
2. SSDs are commonly used in modern computers and laptops due to their speed and reliability, especially for running operating systems and applications.

Knowledge Booster:

- **CD and DVD** are optical storage media with much slower data access speeds compared to SSDs.
- **Flash Drives** are portable storage devices, but their read/write speeds are typically slower than SSDs.
- **Hard Disks (HDDs)** have mechanical parts, making them slower than SSDs for data access.

S35. Ans.(b)

Sol. The shortcut key **Ctrl + R** is used to refresh or reload a web page in most web browsers. Pressing this combination forces the browser to reload the current page, ensuring that the user sees the latest version of the website.

Important Key Points:

1. **Ctrl + R** is commonly used in web browsers like Chrome, Firefox, and Edge for refreshing a web page.
2. The refresh action helps retrieve the latest data from the server or reloads the current state of the webpage.

Knowledge Booster:

- **Ctrl + F** is used to find specific text on a webpage.
- **Alt + F4** is used to close the current window or application.
- **Ctrl + F6** is used for switching between open documents in some applications.
- **Shift + R** does not refresh a web page.

S36. Ans.(c)

Sol. A key feature of **Dot Matrix Printers** is their ability to **print multiple copies using carbon paper**. This is because dot matrix printers use an impact mechanism, where the print head strikes an ink ribbon to form characters on the paper, allowing them to produce multiple copies simultaneously if carbon paper is placed between the sheets.

Important Key Points:

1. **Dot Matrix Printers** are impact printers, making them suitable for tasks that require printing multiple copies using carbon paper, such as receipts and invoices.
2. Although outdated compared to modern printers, dot matrix printers are still used in specific applications where such functionality is needed.

Knowledge Booster:

- **Coloured Printing** is not a feature of dot matrix printers, as they are typically limited to monochrome.
- **High-Resolution Printing** is not characteristic of dot matrix printers; they offer lower resolution compared to modern printers like inkjet or laser.

- **Quiet Printing** is not a feature of dot matrix printers; they tend to be noisier than modern non-impact printers.
- **Laser Precision** is a feature of laser printers, not dot matrix printers.

S37. Ans.(b)

Sol. The **Insert** tab in MS PowerPoint allows users to add various elements such as tables, charts, pictures, and other media into slides. It is the primary tab for inserting content that enhances the visual appeal and functionality of a presentation.

Important Key Points:

1. The **Insert** tab provides options for adding tables, charts, images, shapes, and media files like audio and video.
2. It is essential for creating dynamic and visually engaging presentations by including multimedia elements.

Knowledge Booster:

- The **Home** tab contains basic formatting options but is not used for inserting tables, charts, or pictures.
- The **Design** tab is used for slide design and themes, not for adding content elements.
- The **View** tab allows you to change the view of your presentation but not to insert content.
- The **Review** tab is primarily for checking spelling, grammar, and adding comments, not for inserting tables or charts.

S38. Ans.(b)

Sol. The **Conversation View** feature groups emails with the same subject line into a single conversation. This feature helps users keep track of email threads more easily by displaying all related messages in a collapsed view, avoiding clutter in the inbox.

Important Key Points:

1. **Conversation View** is commonly used in email clients like Gmail and Outlook to organize related emails into one thread.
2. It helps users follow discussions and responses in an organized manner, making it easier to manage long email exchanges.

Knowledge Booster:

- **Spam Filter** is used to detect and move unwanted or suspicious emails to the spam folder.
- **Thread Sorting** refers to manually organizing emails but is not a specific feature for grouping emails automatically.
- **Email Archiving** is used to store old emails for future reference, but it does not group emails by subject.
- **Priority Inbox** is a feature that sorts emails by importance, not by grouping them into conversations.

S39. Ans.(a)

Sol. **Autofill** is a feature in web browsers that automatically fills in information such as usernames, passwords, addresses, and payment details on web forms. This feature saves time by retrieving previously stored information and applying it to the appropriate fields on a web page.

Important Key Points:

1. **Autofill** can store commonly used information like login credentials, shipping addresses, and payment methods, making online transactions and form submissions quicker.
2. It is available in most web browsers, such as Chrome, Firefox, and Edge.

Knowledge Booster:

- **Cache** stores temporary data from websites to speed up page loading, but it does not autofill forms.
- **Cookies** are small data files used to track user sessions and preferences, but they do not fill in information.
- **Bookmarks** are used to save web page URLs for quick access, but they do not autofill forms.
- **Pop-up Blocker** prevents unwanted pop-up windows from appearing but has no role in filling forms.

S40. Ans.(c)

Sol. **Linux** is a widely used open-source operating system. It is freely available and can be modified and distributed by anyone. Linux is popular for its flexibility, security, and use in a wide range of devices, from servers to personal computers.

Important Key Points:

1. **Linux** is known for being open-source, allowing users to access its source code and customize it as needed.
2. It is highly regarded for its security, stability, and widespread use in servers, development environments, and even smartphones (via Android).

Knowledge Booster:

- **Windows** is a closed-source operating system developed by Microsoft.
- **macOS** is a proprietary operating system by Apple.
- **iOS** is the operating system for Apple's mobile devices and is not open-source.
- **Splunk** is not an operating system; it is a platform for searching, monitoring, and analyzing machine-generated data.

S41. Ans.(c)

Sol. The document is temporarily stored in **RAM** (Random Access Memory) while working on a PC. RAM is volatile memory, which means it stores data only when the computer is powered on. It allows for quick access to data and is used to hold the data temporarily until the user saves the document or closes the application. When the system is turned off, all data in RAM is lost unless saved to a more permanent storage medium like a hard disk.

Important Key Points:

1. **RAM** is responsible for temporary storage of active documents and processes.
2. Data in RAM is lost when the computer is powered off, making it volatile memory.

Knowledge Booster:

- **Hard Disk:** Used for permanent data storage, not temporary storage during active sessions.
- **CD-ROM:** A read-only storage medium, not suitable for temporary or active document storage.
- **ROM:** Non-volatile memory that contains firmware; it's not used for document storage.
- **USB Drive:** A portable storage device used for transferring and saving data, not for temporary storage during active use.

S42. Ans.(c)

Sol. The main purpose of **Microsoft Access** is to serve as a **Database Management System (DBMS)**. It is designed to create and manage databases, enabling users to store, retrieve, and organize large volumes of data. Microsoft Access provides tools for database design, query building, and reporting, making it ideal for small-scale to medium-sized database solutions.

Important Key Points:

1. **Microsoft Access** is used for managing relational databases, supporting forms, queries, and reports.
2. It allows for easy data entry and retrieval, making it a powerful tool for database management tasks.

Knowledge Booster:

- **Word Processing** is the function of Microsoft Word, not Microsoft Access.
- **Spreadsheet Creation** is handled by Microsoft Excel, which specializes in data analysis, not database management.
- **Graphic Design** is managed by specialized software like Adobe Photoshop or CorelDRAW, not Microsoft Access.
- **Email Management** is the primary function of Microsoft Outlook, not Microsoft Access.

S43. Ans.(c)

Sol. A **Flip-Flop** is a basic memory element used in digital circuits to store a single bit of data. It is a type of bistable circuit, meaning it has two stable states (0 and 1), and it is commonly used in memory devices, counters, and shift registers. Flip-flops are fundamental building blocks for sequential logic circuits in digital systems.

Important Key Points:

1. **Flip-Flop** is a circuit that can maintain a stable state, representing either a 0 or 1, and is commonly used in memory elements.
2. It is used to store data temporarily in digital systems, particularly in memory storage and processing tasks.

Knowledge Booster:

- **Register:** Registers are groups of flip-flops used to store multiple bits of data temporarily.
- **Cache:** A high-speed memory component, not used for storing individual bits but for frequently accessed data.
- **RAM:** Random Access Memory stores data temporarily while the system is running, but individual bits are often stored using flip-flops in its internal design.
- **SSD:** Solid State Drives are non-volatile storage devices, storing large amounts of data but no single bits like flip-flops.

S44. Ans.(d)

Sol. To convert the binary number **(101010)₂** into decimal, we apply the binary-to-decimal conversion method by multiplying each bit by 2 raised to the power of its positional index (starting from 0 on the right).

$$(101010)_2 = 1 \times 2^5 + 0 \times 2^4 + 1 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 0 \times 2^0$$

$$(101010)_2 = 32 + 0 + 8 + 0 + 2 + 0$$

$$(101010)_2 = 42$$

Thus, the decimal equivalent of **(101010)₂** is **42**.

Important Key Points:

1. Binary-to-decimal conversion involves multiplying each bit by powers of 2, starting from the rightmost bit.
2. This conversion method is essential in computing, especially in low-level data operations.

Knowledge Booster:

- **Binary System:** It is a base-2 numeral system consisting of only 0s and 1s, which is fundamental in computer operations.
- **Decimal System:** It is a base-10 numeral system, the standard system used for representing integer values in daily life.
- **Octal System:** Another numeral system with a base of 8, often used in computing, especially in legacy systems.
- **Hexadecimal System:** A base-16 numeral system widely used in programming and computing to represent large binary numbers in a more compact form.

S45. Ans.(d)

Sol. The **First Generation** of computers used **vacuum tubes** as the primary technology for circuitry. These computers were large, consumed a lot of electricity, and produced significant heat. Examples of first-generation computers include the ENIAC and UNIVAC. The vacuum tubes acted as electronic switches but were unreliable and prone to frequent failures.

Important Key Points:

1. **First Generation** computers (1940–1956) used vacuum tubes for processing.
2. These computers were known for their large size, heat production, and high energy consumption.

Knowledge Booster:

- **Second Generation:** Computers in this generation used transistors instead of vacuum tubes, which made them smaller and more reliable.
- **Third Generation:** Integrated Circuits (ICs) replaced transistors, further reducing the size and increasing the efficiency of computers.
- **Fourth Generation:** Microprocessors became the defining technology, integrating thousands of ICs on a single chip.
- **Fifth Generation:** Focuses on artificial intelligence (AI) and advanced parallel processing, moving away from traditional hardware components like vacuum tubes and transistors.

S46. Ans.(b)

Sol. The **Accumulator** is a specialized register in the CPU that temporarily stores intermediate results while the **Arithmetic Logic Unit (ALU)** performs calculations. It is designed to quickly access and store data during processing, reducing the need to repeatedly access slower memory components, making the overall operations faster.

Important Key Points:

1. The **Accumulator** serves as a temporary storage location for ALU operations, holding intermediate results for faster processing.
2. It plays a crucial role in speeding up computations by minimizing data transfers between the CPU and main memory.

Knowledge Booster:

- **RAM:** It holds data for active applications, but it is slower than registers like the accumulator and is not directly used for storing ALU results.
- **Control Unit:** It directs the operation of the CPU but does not store data during ALU operations.
- **ROM:** Read-Only Memory stores firmware and cannot be used for temporary data storage in ALU operations.

S47. Ans.(d)

Sol. **Python** is a programming language and is **not** a hardware component. It is a high-level, general-purpose programming language used to develop software and applications. Hardware, on the other hand, refers to the physical components of a computer system, such as a hard disk, monitor, and motherboard.

Important Key Points:

1. **Python** is a software tool used for writing code, not a physical device or component.
2. **Hardware** includes tangible, physical components like hard drives, monitors, and motherboards that make up a computer system.

Knowledge Booster:

- **Hard Disk:** A physical storage device used for storing data in computers.

- **Monitor:** A hardware device used to display output from a computer.
- **Printer:** A peripheral device that produces physical copies of digital documents.
- **Motherboard:** The central circuit board that connects and facilitates communication between all the components of a computer.

S48. Ans.(b)

Sol. The **Star Mark** feature is used in email services to mark important emails for easy access. By adding a star to an email, users can quickly identify and prioritize their important messages, ensuring that they are easy to find and follow up on later.

Important Key Points:

1. The **Star Mark** helps users organize their inbox by highlighting important emails.
2. This feature is widely available in popular email platforms such as Gmail to streamline inbox management.

Knowledge Booster:

- **Archive:** Moves emails out of the inbox but does not highlight important emails.
- **Draft:** Refers to emails that have been written but not yet sent, not used for marking important messages.
- **Folder:** Helps in organizing emails but doesn't specifically mark them as important.
- **Priority Label:** Labels emails based on importance but differs from the star mark, which visually highlights specific emails.

S49. Ans.(c)

Sol. The statement "**Data is lost after the PC is off**" is **incorrect** for non-volatile memory. Non-volatile memory retains data even when the power is turned off. This type of memory is designed to store data permanently until it is intentionally erased or overwritten, which is why it is used in devices like SSDs, hard drives, and USB drives.

Important Key Points:

1. **Non-volatile memory** retains data without requiring power, making it ideal for permanent storage.
2. It is commonly used in storage devices like SSDs, hard drives, and flash drives.

Knowledge Booster:

- **Data is retained even after the PC is turned off:** This is the defining feature of non-volatile memory.
- **It is commonly used for long-term storage:** Non-volatile memory is designed for retaining data long-term, unlike volatile memory like RAM.
- **Non-volatile memory includes SSDs and Hard Drives:** Both of these are examples of non-volatile storage devices.

- **It is slower than volatile memory like RAM:** This is true because non-volatile memory typically operates at slower speeds compared to volatile memory, which is optimized for fast access during active processes.

S50. Ans.(b)

Sol. The primary use of **middleware** is to facilitate the processing of multiple synchronous transactions between applications. Middleware acts as an intermediary, allowing different systems to communicate and coordinate tasks, especially in distributed or networked environments. This ensures smooth data exchange and interaction between various applications, even when they operate in different environments.

Important Key Points:

1. Middleware supports real-time communication between applications, allowing for efficient processing of multiple transactions simultaneously.
2. It helps in managing communication, authentication, and transaction coordination in distributed systems.

Knowledge Booster:

- **Middleware is not responsible for managing hardware resources:** It focuses on software communication rather than hardware management.
- **Direct access to system memory** is handled by low-level processes, not middleware.
- **Data storage** is not the primary function of middleware; it is mainly concerned with facilitating communication.
- **User interface design** is not part of middleware's functionality; this is handled by front-end software development.

S51. Ans.(d)

Sol. The technology used for Bitcoin transactions is **Blockchain**. Blockchain is a decentralized and distributed ledger technology that records all transactions across a network of computers. It ensures that Bitcoin transactions are secure, transparent, and tamper-proof. Every transaction is verified by nodes in the network and added to a block, which is then added to the existing chain of blocks, creating an immutable record of transactions.

Important Key Points:

1. **Blockchain** is the backbone technology for Bitcoin and most other cryptocurrencies, ensuring secure, decentralized transaction processing.
2. The transparency and immutability of blockchain prevent double-spending and unauthorized alterations to the transaction record.

Knowledge Booster:

- **Machine Learning:** This is a subset of AI focused on data-driven predictions but is not used for Bitcoin transaction processing.

- **Artificial Intelligence (AI):** While AI is revolutionizing many industries, it is not directly involved in processing Bitcoin transactions.
- **Data Mining:** In cryptocurrency, "mining" refers to the process of verifying and adding transactions to the blockchain, but data mining (pattern discovery) is not the same.
- **Cloud Computing:** Although used for storage and processing in various applications, cloud computing does not handle Bitcoin transaction verification.

S52. Ans.(b)

Sol. A **Trojan** (or Trojan Horse) is a type of malicious software that appears to be legitimate or harmless but can actually cause harm to your computer or network. Trojans are often disguised as useful software or files, tricking users into installing them. Once installed, they can open a backdoor for hackers to gain access to the system, steal information, or cause other damage.

Important Key Points:

1. **Trojan** malware does not replicate itself like viruses but can cause significant damage by allowing unauthorized access.
2. Trojans are commonly used to steal data, gain control of systems, or install additional malware.

Knowledge Booster:

- **Virus:** A virus replicates itself and spreads to other programs or systems, causing damage by corrupting or deleting files.
- **Worm:** A worm is a type of malware that spreads through networks, often causing disruption by consuming bandwidth, but it doesn't disguise itself as legitimate software.
- **Spyware:** Spyware secretly monitors user activity, but it usually doesn't disguise itself as legitimate software like Trojans do.
- **Ransomware:** Ransomware locks the user out of their system or files until a ransom is paid, but it's not typically disguised as legitimate software.

S53. Ans.(c)

Sol. **Wireless USB** is used in **Personal Area Networks (PAN)**. A PAN is a network that connects devices within a very short range, typically around a single person. Wireless USB allows for the wireless transfer of data between devices like computers, printers, cameras, and other peripherals, making it ideal for use in a PAN environment.

Important Key Points:

1. **Wireless USB** technology allows for short-range, high-speed wireless communication, ideal for personal devices in close proximity.
2. **PAN** networks are designed to support personal devices like smartphones, laptops, and wearable technology over short distances.

Knowledge Booster:

- **LAN:** Used for connecting devices within a limited area, such as a home or office, but Wireless USB is typically focused on individual device connectivity rather than LANs.
- **WAN:** A wide-area network connects devices over large geographical areas, which is not the focus of Wireless USB technology.
- **MAN:** MANs cover larger urban areas, but Wireless USB is not designed for such extensive networking.
- **SAN:** Storage Area Networks are specialized networks for data storage, unrelated to Wireless USB's personal device connectivity.

S54. Ans.(c)

Sol. CodeRed is **not** an antivirus software. It is a computer worm that targeted web servers running Microsoft IIS (Internet Information Services) in 2001. CodeRed exploited vulnerabilities in the web server software to spread itself across the internet, causing significant damage. Unlike antivirus programs, which are designed to protect systems from such malicious software, CodeRed was an attack that infected systems.

Important Key Points:

1. **CodeRed** is a notorious worm that exploited a vulnerability in Microsoft IIS servers in 2001.
2. It is not designed to protect computers, but rather to cause harm by replicating itself and spreading across networks.

Knowledge Booster:

- **McAfee:** One of the leading antivirus software providers, offering protection against viruses, malware, and other threats.
- **Norton:** A widely used antivirus and cybersecurity tool for protecting devices from malware.
- **Kaspersky:** Known for providing comprehensive antivirus protection against malware and cyber threats.
- **AVG:** Another popular antivirus software that provides protection against various forms of malware.

S55. Ans.(a)

Sol. The **Arithmetic Logic Unit (ALU)** is the part of the CPU responsible for performing arithmetic (addition, subtraction, multiplication, division) and logical (AND, OR, NOT, XOR) operations. It is a crucial component of the processor that handles all mathematical calculations and logical decision-making tasks during program execution.

Important Key Points:

1. The **ALU** performs all arithmetic calculations such as addition and subtraction, as well as logical comparisons.
2. It works closely with the control unit and memory to process data and execute instructions.

Knowledge Booster:

- **Control Unit:** Directs the operations of the CPU, but does not perform arithmetic or logical operations.
- **Memory Unit:** Stores data and instructions temporarily, but does not perform calculations.
- **Cache:** A small, high-speed memory that stores frequently accessed data but does not execute arithmetic or logic operations.
- **Register:** Temporarily holds data and instructions for the CPU, but the actual operations are performed by the ALU.

S56. Ans.(c)

Sol. In **MS Excel**, the **ampersand symbol (&)** is used to combine the contents of two or more cells into a single cell. This process is called **concatenation**. For example, if cell A1 contains "Hello" and cell B1 contains "World," the formula =A1 & " " & B1 will combine them into "Hello World."

Important Key Points:

1. The **ampersand (&)** symbol is a quick way to combine or concatenate text or numbers from different cells in Excel.
2. You can also use the **CONCAT function** for the same purpose, i.e., =CONCAT(A1, B1).

Knowledge Booster:

- **%:** Used to format numbers as percentages.
- **+:** Used for arithmetic addition, not for combining cell content.
- **=:** Used to start a formula in Excel.
- ***:** Used for multiplication, not concatenation.

S57. Ans.(c)

Sol. **Spyware** is a type of malware designed to secretly collect information about a user without their knowledge. It often tracks users' activities, including browsing habits, keystrokes, and personal information like passwords and credit card details. Spyware can be installed through malicious downloads, email attachments, or even legitimate-looking software.

Important Key Points:

1. **Spyware** operates silently in the background, collecting personal information and transmitting it to the attacker without the user's consent.
2. It is often used for identity theft, financial fraud, or to serve targeted advertisements.

Knowledge Booster:

- **Virus:** A type of malware that replicates itself and spreads to other files, but its primary goal is not information collection.
- **Worm:** Malware that spreads across networks, usually to cause disruption rather than to collect user information.
- **Ransomware:** A type of malware that locks users out of their data or system until a ransom is paid, not for secret data collection.

- **Trojan:** Disguised as legitimate software, a Trojan grants unauthorized access but doesn't focus solely on data collection like spyware.

S58. Ans.(b)

Sol. Cache memory has the shortest access time compared to all other memory units, except for CPU registers. Cache is located close to the CPU and stores frequently accessed data, allowing for quicker retrieval and improved processing speeds. This significantly enhances the performance of the system by minimizing the time it takes to access data from slower memory units, such as RAM or secondary storage.

Important Key Points:

1. **Cache memory** is faster than RAM and other storage units, as it stores frequently accessed data for the CPU.
2. Cache helps in reducing latency and improving the overall performance of the system.
3. The **order of access time** for different types of memory, from fastest to slowest, is:
 - **CPU Registers** (fastest)
 - **Cache memory**
 - **Main memory (RAM)**
 - **Secondary memory** (Hard disk, SSD, etc.)

Knowledge Booster:

- **RAM:** Slower than cache but faster than secondary storage devices.
- **Hard Disk:** Much slower compared to cache and RAM, used for long-term storage.
- **SSD:** Faster than traditional hard disks but slower than cache memory.
- **CD-ROM:** Optical storage media, significantly slower in access time compared to all other memory types listed.

S59. Ans.(a)

Sol. The full form of ATX is **Advanced Technology eXtended**. ATX is a motherboard and power supply configuration standard that was developed by Intel in 1995. It defines the physical dimensions, mounting points, and connector interfaces for motherboards, ensuring compatibility between various computer components.

Important Key Points:

1. **ATX** is a widely adopted standard for motherboards and power supplies in desktop computers.
2. It specifies the dimensions and layout of components to ensure that motherboards fit into cases and work with standard power supplies.
3. Advanced Technology eXtended (ATX) is the successor to the earlier Baby AT form factor.
4. ATX motherboards are larger than microATX and mini-ITX boards, offering more expansion slots.
5. ATX is still the most common form factor for desktop computers.

S60. Ans.(b)

Sol. Ransomware is a type of **Encryption Malware**. It encrypts a user's files or locks their system, demanding a ransom to unlock or decrypt the data. This form of malware poses a serious threat by making data inaccessible until the user pays the ransom, typically in cryptocurrency, to receive the decryption key from the attacker.

Important Key Points:

1. **Ransomware** uses encryption to lock files or systems, and users must pay a ransom to regain access.
2. It is one of the most dangerous forms of malware due to its ability to render data completely unusable without the decryption key.

Knowledge Booster:

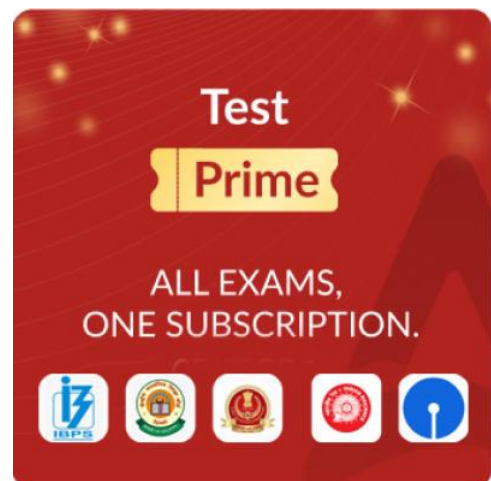
- **Application Software:** Software designed for user tasks, not malware.
- **Decryption Malware:** This option is incorrect because ransomware encrypts data; it does not decrypt it.
- **Antivirus Software:** Antivirus software detects and removes malware, but ransomware is a type of malware, not antivirus.
- **Protection Malware:** This option is misleading; malware does not offer protection—it causes harm.

S61. Ans.(a)

Sol. The **Control Unit (CU)** in a CPU is responsible for **interpreting instructions**. It fetches, decodes, and directs the execution of instructions stored in memory, ensuring the CPU functions as required. It coordinates the activities of the CPU and other components, ensuring smooth and sequential task execution.

Important Key Points:

1. The **Control Unit** interprets and controls the flow of instructions in a computer system.
2. It does not perform operations but directs other parts of the CPU to do so.



Knowledge Booster:

- **Printing data:** This is handled by the printer driver or spooler, not the Control Unit.
- **Providing internet access:** Managed by network adapters and protocols, not the CU.
- **Adjusting screen resolution:** Controlled by the graphics card and monitor settings, not the CU.
- **Compressing files:** This is handled by software programs, not the Control Unit.

S62. Ans.(c)

Sol. The most prominent and widely used IP protocols today are **IPv4 & IPv6**. **IPv4** has been the primary protocol used for internet traffic for decades. However, due to the limited address space of IPv4, **IPv6** was introduced, offering a much larger address pool and several technological improvements to handle modern internet demands.

Important Key Points:

1. **IPv4** remains widely used, while **IPv6** adoption is increasing to accommodate the growing number of devices requiring IP addresses.
2. **IPv6** includes improvements in security and routing efficiency over IPv4.

Knowledge Booster:

- **IPv2 & IPv3:** Early versions of the Internet Protocol, not widely implemented.
- **IPv5 & IPv7:** IPv5 was an experimental protocol and never fully deployed, while **IPv7** is a non-existent protocol.
- **IPv1 & IPv7:** These versions are not recognized or used in modern networking.
- **IPv2 & IPv5:** These versions are either early or experimental protocols that were not adopted.

S63. Ans.(a)

Sol. A **Rootkit** is a type of malicious software designed to provide unauthorized access to a computer system while concealing its presence. Rootkits **hide their processes**, files, and data, making it difficult for users and antivirus programs to detect their malicious activities. Once installed, a rootkit allows attackers to control the system, steal data, and perform other harmful actions without being detected.

Important Key Points:

1. **Rootkits** are typically used by attackers to maintain persistent access to a compromised system while hiding their activities.
2. Rootkits are often installed through phishing attacks, software vulnerabilities, or by exploiting system weaknesses.

Knowledge Booster:

- **Security Software:** Unlike rootkits, legitimate security software is designed to protect against malicious activities, not hide them.

- **System Performance Tools:** These tools are used to improve the performance of a system, but they do not conceal activities.
- **System Recovery Applications:** Used to restore systems after failure or corruption, these tools are legitimate and not malicious like rootkits.
- **Antivirus Software:** Antivirus programs are designed to detect and remove malware, including rootkits, not to hide them.

S64. Ans.(d)

Sol. A **stylus** operates using **capacitive touch** technology, which allows it to interact with touchscreen devices. Capacitive touchscreens detect the conductive properties of the stylus, enabling precise input for activities like writing, drawing, or navigating. This technology mimics the electrical conductivity of a human finger.

Important Key Points:

1. **Capacitive Touch** technology is widely used in smartphones, tablets, and touchscreen laptops for accurate input with a stylus.
2. The stylus provides more precise control than a finger, making it ideal for tasks requiring accuracy.

Knowledge Booster:

- **Laser:** Primarily used in laser pointers for presentations, not in stylus technology.
- **Pointer:** Refers to devices for directing attention during presentations but not for touch input.
- **UV Rays:** Not used in styluses; UV rays are related to light and electromagnetic radiation, not touchscreens.
- **Magnetic Field:** Some specialized devices use magnetic technology, but common styluses rely on capacitive touch.

S65. Ans.(c)

Sol. An **interrupt** allows the **CPU to temporarily halt its current task to manage urgent tasks**, such as **handling input/output operations** or responding to critical events. This enables the system to quickly address time-sensitive operations. Once the interrupt is managed, the CPU resumes its previous task.

Important Key Points:

1. **Interrupts** ensure that high-priority tasks, like input/output requests, are addressed immediately.
2. They allow the CPU to efficiently multitask, switching between processes as needed.

Knowledge Booster:

- **Stop CPU tasks:** This does not describe an interrupt; the CPU pauses tasks temporarily but resumes them after handling the interrupt.
- **Allocate memory:** Memory management is handled by the operating system, not interrupts.

- **Save data:** Data storage operations are unrelated to interrupts, which manage real-time tasks.
- **Protect against malware:** Interrupts do not provide security; antivirus programs are responsible for malware protection.

S66. Ans.(b)

Sol. Extending the size of RAM is one of the most effective ways to increase the speed of a computer. More RAM allows the system to handle more tasks simultaneously, reducing the need to rely on slower secondary storage, such as the hard disk. RAM upgrades improve multitasking, speed up applications, and enhance overall system performance.

Important Key Points:

1. **RAM** (Random Access Memory) allows the computer to store and access data quickly while performing multiple tasks.
2. Increasing RAM reduces the frequency of data being swapped to the hard drive, which is slower.

Knowledge Booster:

- **Increasing storage on the hard disk:** While increasing storage provides more space, it doesn't directly improve system speed.
- **Adding more USB ports:** This adds more connectivity options but doesn't impact computer speed.
- **Installing antivirus software:** Protects the system but does not enhance its speed.
- **Replacing the power supply:** Ensures stable power but does not affect system performance or speed.

S67. Ans.(b)

Sol. A Graphic Tablet is used to convert a handwritten signature into an image. This device allows users to write or draw on its surface using a stylus, and the input is captured digitally, making it ideal for creating digital signatures or artwork.

Important Key Points:

1. A **Graphic Tablet** captures handwriting or drawings and converts them into digital form.
2. It is commonly used in digital design, signature capture, and other applications that require precise hand input.

Knowledge Booster:

- **Barcode Scanner:** Scans barcodes for information retrieval, unrelated to capturing handwritten signatures.
- **Joystick:** Primarily used for gaming, not for inputting handwriting.
- **Optical Mouse:** Used for pointing and clicking but cannot capture handwritten input.
- **Trackball:** Another pointing device, similar to a mouse, with no capability to capture handwriting.

S68. Ans.(c)

Sol. SMTP (Simple Mail Transfer Protocol) is primarily used for **email transmission**. It is responsible for sending emails from one server to another over the internet. SMTP works by transferring mail from the sender's email client to the recipient's email server, ensuring that messages are delivered to the appropriate destination.

Important Key Points:

1. **SMTP** is the standard protocol used for sending emails across the internet.
2. It is typically used in conjunction with other protocols like POP3 or IMAP, which are responsible for receiving emails.

Knowledge Booster:

- **File Transfer:** This is typically handled by FTP (File Transfer Protocol), not SMTP.
- **Web Browsing:** HTTP/HTTPS are used for browsing the web, not SMTP.
- **Data Encryption:** Encryption is handled by protocols like SSL/TLS, not SMTP directly.
- **Remote Access:** This is managed by protocols such as SSH or RDP, unrelated to SMTP.

S69. Ans.(c)

Sol. UNIX is a **system software** that functions as an operating system. It manages hardware resources, provides a platform for applications to run, and facilitates user interaction with the system. Operating systems like UNIX control the core functions of a computer, such as file management, process management, and memory management.

Important Key Points:

1. **System Software** includes operating systems like UNIX, which are essential for managing hardware and software resources.
2. UNIX is widely used in servers, workstations, and other systems requiring a stable, multiuser operating environment.

Knowledge Booster:

- **Microsoft Word:** A word processing application, categorized as application software.
- **Photoshop:** A graphic design tool, also application software.
- **VLC Media Player:** A media player used for playing audio and video files, part of application software.
- **Chrome:** A web browser, which is also considered application software.

S70. Ans.(c)

Sol. The SATA (Serial Advanced Technology Attachment) port is the most commonly used port to connect an internal hard disk drive (HDD) to a motherboard. SATA is a widely adopted interface that allows for fast data transfer between the motherboard and storage devices, such as HDDs and SSDs.

Important Key Points:

1. **SATA** is the standard interface for connecting internal storage devices to the motherboard, known for high data transfer speeds.
2. It replaced older technologies like IDE (Integrated Drive Electronics) due to its improved performance and ease of use.

Knowledge Booster:

- **USB:** Commonly used for external storage devices, but not for internal HDD connections.
- **HDMI:** Used for transmitting video and audio signals, not for connecting storage devices.
- **Ethernet:** Used for networking, unrelated to HDD connections.
- **VGA:** A video graphics port for connecting monitors, not for storage devices.

S71. Ans.(b)

Sol. A **Worm** is a type of malware that can spread across networks without needing to attach itself to a host file or program. Worms propagate by exploiting vulnerabilities in systems and can cause widespread damage by consuming bandwidth, disrupting network services, and sometimes corrupting data.

Important Key Points:

1. **Worms** spread autonomously over networks and do not require user action or attachment to files, unlike viruses.
2. They often exploit network vulnerabilities, causing system slowdowns or network congestion.

Knowledge Booster:

- **Virus:** A virus typically attaches itself to a host file and requires user action to spread.
- **Trojan:** A Trojan disguises itself as legitimate software but does not spread like a worm.
- **Spyware:** Used to monitor user activity but does not spread autonomously.
- **Adware:** Displays unwanted ads but does not replicate or spread across networks like worms.

S72. Ans.(a)

Sol. A **phishing attack** is a cyber-attack where attackers send fraudulent emails, pretending to be legitimate entities, to trick individuals into revealing sensitive information like passwords, credit card numbers, or other personal data. These emails often direct users to fake websites that closely mimic genuine ones, where they are prompted to enter their confidential information.

Important Key Points:

1. **Phishing attacks** are one of the most common types of social engineering attacks used to steal personal and financial information.

2. They often use emails or messages that appear to be from trusted sources, tricking users into clicking malicious links or entering personal information.

Knowledge Booster:

- **Blocking websites:** Phishing attacks don't involve blocking websites; they use fake websites to steal data.
- **Encrypting data:** Encryption is a security method, not related to phishing.
- **Malware:** Phishing attacks don't directly involve infecting systems with malware, though they can lead to it.
- **Scanning networks:** Network scanning for vulnerabilities is a different kind of security assessment and not related to phishing.

S73. Ans.(a)

Sol. Parents can monitor the content their children are accessing online by **reviewing Activity Logs**. These logs provide detailed records of websites visited, applications used, and online activities. Many internet routers, parental control software, and devices include features that allow parents to track and control what content their children can access.

Important Key Points:

1. **Activity Logs** provide a record of a child's browsing history, which helps parents monitor online behavior.
2. Parental control software often includes activity logs to offer additional tools for monitoring and filtering inappropriate content.

Knowledge Booster:

- **Antivirus Software:** Protects devices from malware but does not provide tools for monitoring children's online activities.
- **Disabling Internet Access:** While this prevents access entirely, it doesn't allow monitoring or filtering content.
- **Installing External Storage:** External storage does not offer any features for monitoring internet activity.
- **Using Word Processors:** Word processing software is unrelated to monitoring internet activities.

S74. Ans.(b)

Sol. The main difference between **IMAP (Internet Message Access Protocol)** and **POP3 (Post Office Protocol 3)** is that **IMAP** allows email synchronization across multiple devices, meaning changes (such as reading, deleting, or moving an email) are reflected on all devices accessing the email account. **POP3**, however, downloads emails to a single device and typically removes them from the server, meaning emails are only available on the device where they were downloaded.

Important Key Points:

1. **IMAP** is ideal for accessing emails from **multiple devices** like phones, laptops, or desktops, ensuring that all changes are synced across these devices.

2. **POP3** is better for users who want to store emails on a **single device** (like **Mozilla Thunderbird** or another email client), as it downloads emails locally and often removes them from the server, making the emails available only on that device.

Knowledge Booster:

- **IMAP** stores emails on the server, allowing users to access and sync their emails across multiple devices.
- **POP3** downloads emails to a single device and typically removes them from the server after download, limiting access to one device.

S75. Ans.(b)

Sol. **Whitelisting** in parental lock settings refers to the process of **allowing only approved websites or content** to be accessed. In this system, parents or administrators create a list of safe or appropriate websites, and the user is restricted to accessing only those websites. Any content not on the whitelist is blocked.

Important Key Points:

1. **Whitelisting** ensures that only pre-approved websites or content are accessible, offering a high level of control over what children can view.
2. It is an effective way for parents to filter and control the content their children can access online, especially in restrictive environments.

Knowledge Booster:

- **Blocking specific websites:** This is called **blacklisting**, where certain sites are blocked, but all others are accessible.
- **Monitoring all online activities:** Involves tracking web usage but does not prevent access to certain content like whitelisting.
- **Disabling internet access:** Prevents all online access, not just content filtering.
- **Tracking time spent online:** Helps monitor usage time but does not control content access.

S76. Ans.(c)

Sol. An **SSD (Solid State Drive)** is a type of **non-volatile memory**, meaning it retains data even when the computer is powered off. Non-volatile memory, such as SSDs, is used for long-term data storage. Unlike volatile memory (e.g., RAM), non-volatile memory doesn't lose data when power is removed.

Important Key Points:

1. **Non-volatile memory** retains data without power, making it ideal for long-term storage solutions like SSDs and hard drives.
2. **Volatile memory**, such as RAM and cache, loses all stored data when the power is turned off.

Knowledge Booster:

- **RAM:** A volatile memory used for temporary storage while the computer is running.
- **Cache:** Another form of volatile memory used to store frequently accessed data for quick access.
- **Registers:** Small, fast storage locations inside the CPU, also volatile.
- **CPU:** Central Processing Unit, not a type of memory.

S77. Ans.(b)

Sol. **Laser** technology is used in optical disks (such as CDs, DVDs, and Blu-ray discs) to store and retrieve data. Data is written on the disk by burning tiny pits into the surface of the disk using a laser. The laser is also used to read the data by detecting the reflections from these pits.

Important Key Points:

1. **Optical disks** store data by using a laser to burn pits into the surface, representing binary data (0s and 1s).
2. When reading data, the laser shines onto the disk, and the reflected light is interpreted to retrieve the stored information.

Knowledge Booster:

- **Magnetic Field:** Used in magnetic storage devices such as hard drives and magnetic tapes, not in optical disks.
- **Electrical Charge:** This is used in flash storage devices, not in optical disks.
- **Capacitive Touch:** Related to touchscreens, not optical storage.
- **UV Rays:** Not used in the technology for optical disk storage.

S78. Ans.(c)

Sol. A **macro** in MS Excel is a feature that allows users to **automate repetitive tasks** by recording a sequence of actions and replaying them whenever needed. Macros are particularly useful for performing repetitive tasks such as formatting, calculations, or data entry, and they can be triggered with a single command or keyboard shortcut.

Important Key Points:

1. **Macros** help save time by automating a series of steps in Excel, reducing the need to manually repeat the same actions.
2. Users can record macros and assign them to a button or a keyboard shortcut for easy execution.

Knowledge Booster:

- **Built-in formula:** Excel uses functions like SUM() or AVERAGE(), but macros go beyond these by recording complex sequences of actions.
- **Chart creation:** Charts in Excel are created using a different process, but a macro could be used to automate the chart creation.

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- **Formatting tool:** Macros can be used to automate formatting, but they are not specifically a formatting tool.
- **Sorting data:** Sorting is done using Excel's built-in tools, though macros can automate this process.

S79. Ans.(b)

Sol. Virtual Reality (VR), Augmented Reality (AR), and Artificial Intelligence (AI) enhance human understanding by creating **immersive environments** and **intelligent systems** that help people **visualize** and **process** complex information. VR provides users with a fully immersive experience, while AR overlays digital information onto the real world. AI helps in making sense of large datasets, providing insights, predictions, and recommendations that assist in decision-making.

Important Key Points:

1. **Virtual Reality (VR)** offers immersive, simulated environments that can enhance learning and understanding by placing users in lifelike scenarios.
2. **Augmented Reality (AR)** enhances real-world environments by overlaying digital information, allowing users to interact with both real and virtual elements.
3. **Artificial Intelligence (AI)** processes data, generates insights, and provides intelligent systems that help humans understand complex concepts more effectively.

Knowledge Booster:

- **AI** is extensively used in educational tools, simulations, and decision-making systems, providing insights that help in various fields like medicine, engineering, and business.

- **VR and AR** are applied in sectors like education, healthcare, and entertainment to improve understanding through immersive and interactive learning experiences.

S80. Ans.(b)

Sol. In Quantum Computing, the basic unit of information is a **qubit**, which differs from traditional bits used in classical computing. Qubits can exist in multiple states simultaneously due to quantum superposition, enabling quantum computers to process information much more efficiently than classical computers, which use bits that can only be in one state (0 or 1) at a time.

Important Key Points:

1. **Qubits** can represent both 0 and 1 simultaneously due to quantum superposition, allowing for parallel processing.
2. **Quantum Computing** is especially useful for solving complex problems like cryptography, material simulations, and optimization tasks that are challenging for classical computers.

Knowledge Booster:

- **Classical Bits:** Used in traditional computers, where a bit can be either 0 or 1, unlike qubits which can represent multiple states.
- **Registers:** Temporary storage in classical CPUs, not used in quantum computing.
- **Cache:** A small, fast memory in classical computing, unrelated to quantum processing.
- **Transistors:** The building blocks of classical computer processors, not relevant in quantum computing.

Q1. What is the label of the first row in MS Excel?

- (a) A
- (b) 0
- (c) 1
- (d) 01
- (e) None of the above

Q2. In MS Word, how are the title or page number defined?

- (a) Header and Footer
- (b) Margin and Border
- (c) Paragraph and Alignment
- (d) Font and Style
- (e) Table and Chart

Q3. Arrange the following page sizes in ascending order: A4, A5, Legal.

- (a) Legal < A4 < A5
- (b) A4 < A5 < Legal
- (c) A5 < Legal < A4
- (d) A5 < A4 < Legal
- (e) Legal < A5 < A4

Q4. What is the shortcut key for inserting a page break in MS Word?

- (a) Ctrl + Enter
- (b) Ctrl + Shift + P
- (c) Ctrl + B
- (d) Ctrl + P
- (e) None of the above

Q5. What is the function key for Help in most software applications?

- (a) F1
- (b) F2
- (c) F5
- (d) F8
- (e) None of the above

Q6. What is the base of the octal number system?

- (a) $(\dots)_2$
- (b) $(\dots)_8$
- (c) $(\dots)_{16}$
- (d) $(\dots)_{10}$
- (e) None of the above

Q7. Which of the following is an impact printer?

- (a) Inkjet Printer
- (b) Laser Printer
- (c) Dot Matrix Printer
- (d) Thermal Printer
- (e) 3D Printer

Q8. Disk Defragmenter is an example of which type of software?

- (a) System Software
- (b) Application Software
- (c) Utility Software
- (d) Database Software
- (e) Programming Software

Q9. What is the IP address range for Class A?

- (a) 10-128
- (b) 0-127
- (c) 192-223
- (d) 128-225
- (e) 128-191

Q10. Which symbol is used for absolute cell reference in MS Excel?

- (a) # (Hash)
- (b) @ (At)
- (c) \$ (Dollar)
- (d) & (Ampersand)
- (e) % (Percent)

Q11. Which feature in MS Excel is used to display the cell contents on multiple lines, rather than one long line?

- (a) Merge Cells
- (b) Text Orientation
- (c) Word Wrap
- (d) Format Painter
- (e) Conditional Formatting

Q12. What is the binary equivalent of the decimal number 10?

- (a) 1010
- (b) 1001
- (c) 1100
- (d) 1110
- (e) 1000



Q13. In Excel, formulas always start with which symbol?

- (a) #
- (b) &
- (c) =
- (d) @
- (e) None of the above

Q14. What is the shortcut key for center alignment in MS Word?

- (a) Ctrl + L
- (b) Ctrl + E
- (c) Ctrl + R
- (d) Ctrl + J
- (e) Ctrl + C

Q15. Which of the following statements about ChatGPT is true?

- 1. ChatGPT is a type of artificial intelligence.
- 2. ChatGPT can understand and generate human-like text.
- 3. ChatGPT is developed by OpenAI.
- 4. ChatGPT can perform language translation.
- 5. ChatGPT can be used for programming assistance.

- (a) Only statements 1 and 3 are true.
- (b) Only statements 2 and 4 are true.
- (c) Only statements 1, 2, and 3 are true.
- (d) All statements 1, 2, 3, 4, and 5 are true.
- (e) Only statements 3 and 5 are true.

Q16. How many alphabets are used in the hexadecimal number system?

- (a) 3
- (b) 6
- (c) 16
- (d) 9
- (e) None of the above

Q17. In which generation of computers were real-time processing and time-sharing systems introduced?

- (a) First Generation
- (b) Second Generation
- (c) Third Generation
- (d) Fourth Generation
- (e) Fifth Generation

Q18. What is the function of the Ctrl + F6 shortcut key in MS Excel?

- (a) Closes the current workbook
- (b) Opens a new workbook
- (c) Switches to the next workbook window when more than one workbook window is open
- (d) Saves the current workbook
- (e) Minimizes the current window

Q19. In MS Word, under which tab can you find the option to insert a citation?

- (a) Home
- (b) Insert
- (c) Design
- (d) References
- (e) Layout

Q20. How many bits are used in an IPv4 address?

- (a) 8 bits
- (b) 16 bits
- (c) 32 bits
- (d) 64 bits
- (e) 128 bits

Q21. What is the use of a watermark in a document?

- (a) Prevent from copying
- (b) Enhance visual appearance
- (c) Add additional comments
- (d) Improve print quality
- (e) Save paper

Q22. Which of the following is not programming software?

- (a) Eclipse
- (b) Visual Studio
- (c) Solaris
- (d) NetBeans
- (e) PyCharm

Q23. The software substituted for hardware and stored in ROM is called:

- (a) Synchronous Software
- (b) Package Software
- (c) Firmware
- (d) BIOS
- (e) Middleware

Q24. What is the correct formula to sum cells A1 and A2 in Excel?

- (a) =SUM(A1 OR A2)
- (b) =A1 + A2
- (c) =SUM(A1, A2)
- (d) =SUM(A1:A2)
- (e) =ADD(A1+A2)

Q25. What is the shortcut key to run macros in MS Excel?

- (a) Alt + F4
- (b) Alt + F5
- (c) Alt + F8
- (d) Alt + F7
- (e) Alt + F6

Q26. Which of the following is not a type of database?

- (a) Hierarchical
- (b) Network
- (c) Relational
- (d) Private
- (e) Distributed

Q27. What is the main function of the Control Unit (CU) in a computer?

- (a) Executing instructions
- (b) Storing data
- (c) Monitoring the CPU temperature
- (d) Controlling the sequence of operations
- (e) Managing input/output device

Q28. What does the "I'm Feeling Lucky" button on the Google search page do?

- (a) Displays the search results page
- (b) Saves the search for later
- (c) Sends you to the first result on the page
- (d) Shows trending searches
- (e) Filters out ads from the search results above

Q29. Which of the following are basic logic gates?

- (a) AND, OR, NOT
- (b) NAND, NOR, XOR
- (c) AND, NOR, XOR
- (d) OR, NAND, NOR
- (e) XOR, XNOR, NOT

Q30. Which company originally developed SSL (Secure Sockets Layer)?

- (a) Microsoft
- (b) IBM
- (c) Netscape
- (d) Google
- (e) Sun Microsystems

Q31. What type of language is Pascal?

- (a) Assembly Language
- (b) High-level Programming Language
- (c) Markup Language
- (d) Scripting Language
- (e) Machine Language

Q32. The primary type of internal storage in smartphones is.....

- (a) CD
- (b) SRAM
- (c) ROM
- (d) Flash Memory
- (e) Hard Disk

Q33. GIF and PNG are which type of format?

- (a) Image
- (b) Video
- (c) Audio
- (d) Text
- (e) Document

Q34. Which of the following uses a 48-bit addressing scheme?

- (a) PATA
- (b) SATA
- (c) CMOS
- (d) NIC
- (e) IP Address

Q35. Which of the following are universal gates?

- (a) AND, OR
- (b) NOR, NAND
- (c) XOR, XNOR
- (d) NOT, OR
- (e) AND, NOT

Q36. What is the use of the 'Merge and Center' feature in MS Excel?

- (a) It adds numeric values from two cells
- (b) It joins two words from two cells
- (c) It combines two cells into one cell
- (d) It calculates the total of a range of cells
- (e) It formats text as a heading

Q37. In which year did the first computer virus appear?

- (a) 1965
- (b) 1971
- (c) 1983
- (d) 1986
- (e) 1990

Q38. _____ is a form of social engineering and a scam where attackers deceive people into revealing sensitive information or installing malware such as viruses, worms, adware, or ransomware.

- (a) Phishing
- (b) Spamming
- (c) Hacking
- (d) Spoofing
- (e) Sniffing

Q39. Which of the following mode makes it easy for the computer user to quickly resume the work?

- (a) Standby mode
- (b) Power down
- (c) Hibernation
- (d) Shutdown
- (e) None of the above

Q40. Direct Action Virus is also known as:

- (a) Resident Virus
- (b) Non-resident Virus
- (c) Boot Sector Virus
- (d) Polymorphic Virus
- (e) Macro Virus

Q41. What is the shortcut key for removing character formatting in MS Word 2013?

- (a) Ctrl + Shift + F
- (b) Ctrl + Alt + F
- (c) Ctrl + Spacebar
- (d) Ctrl + Shift + C
- (e) None of the above

Q42. What is the minimum number of rows and columns in an MS Word document table?

- (a) 0 Rows, 0 Columns
- (b) 1 Row, 2 Columns
- (c) 2 Rows, 1 Column
- (d) 1 Row, 1 Column
- (e) None of the above

Q43. The extensions .doc and .docx are associated with which software?

- (a) MS Excel
- (b) MS PowerPoint
- (c) MS Word
- (d) MS Access
- (e) MS Publisher

Q44. What device converts digital signals to analog signals?

- (a) Router
- (b) Switch
- (c) Modem
- (d) Hub
- (e) Repeater

Q45. What is the capacity of CD-ROM?

- (a) 750 KB
- (b) 750 GB
- (c) 750 Byte
- (d) 750 MB
- (e) 750 TB

Q46. Which of the following is a database software?

- (a) Microsoft Word
- (b) Adobe Photoshop
- (c) Microsoft Access
- (d) VLC Media Player
- (e) Notepad

Q47. Which of the following is a function in Excel?

- (a) SUM
- (b) BOLD
- (c) SAVE
- (d) PRINT
- (e) NEW

Q48. What is the bottom section of a document called?

- (a) Header
- (b) Footer
- (c) Margin
- (d) Border
- (e) Title

Q49. A computer cannot boot if which of the following is not present.

- (a) Hard Drive
- (b) Power Supply
- (c) Operating System
- (d) Monitor
- (e) Keyboard

Q50. Which of the following is used to work online in MS Office?

- (a) MS Word
- (b) MS Excel
- (c) MS PowerPoint
- (d) Office 365
- (e) None of the above

Q51. What is the shortcut key for bolding text in MS Word?

- (a) Ctrl + I
- (b) Ctrl + U
- (c) Ctrl + B
- (d) Ctrl + A
- (e) None of the above

Q52. Which of the following is non-volatile memory?

- (a) RAM
- (b) Cache Memory
- (c) Hard Drive
- (d) ROM
- (e) Register

Q53. Which of the following is not a part of a laser printer?

- (a) Head & Ribbon
- (b) Toner Cartridge
- (c) Drum Unit
- (d) Fuser
- (e) Laser

Q54. Arrange the following in descending order of size: KB, GB, TB, MB.

- (a) KB, MB, GB, TB
- (b) TB, GB, MB, KB
- (c) GB, TB, MB, KB
- (d) MB, GB, TB, KB
- (e) TB, MB, GB, KB

Q55. Which of the following is not a tool in MS Word?

- (a) Spell Check
- (b) Thesaurus
- (c) Mail Merge
- (d) Firefox
- (e) Hyperlink

Q56. What is Artificial Intelligence (AI)?

- (a) A machine that cleans like a human
- (b) Making a machine intelligent
- (c) A software for graphic design
- (d) A tool for data entry
- (e) A hardware component

Q57. What is the shortcut key to save a document?

- (a) Ctrl + P
- (b) Ctrl + S
- (c) Ctrl + C
- (d) Ctrl + V
- (e) Ctrl + X

Q58. Which of the following is used for communication via television?

- (a) Radio
- (b) Internet
- (c) Telephone
- (d) Satellite
- (e) Fiber Optic Cable

Q59. Which of the following provides power backup during an electricity outage?

- (a) Hard Drive
- (b) Surge Protector
- (c) UPS
- (d) CPU
- (e) Modem

Q60. Which of the following is not an input device?

- (a) Mouse
- (b) Microphone
- (c) Plotter
- (d) Keyboard
- (e) None of the above

Q61. What is the shortcut key to insert a new slide in PowerPoint?

- (a) Ctrl + M
- (b) Ctrl + N
- (c) Ctrl + S
- (d) Ctrl + D
- (e) Ctrl + P

Q62. When was the internet invented?

- (a) January 1, 1970
- (b) January 1, 1980
- (c) January 1, 1983
- (d) January 1, 1990
- (e) January 1, 2000

Q63. Which of the following is a valid PowerPoint file extension?

- (a) .xls
- (b) .docx
- (c) .ppt/.pptx
- (d) .mdb
- (e) .txt

Q64. In the year 1837, what was the name of the first mechanical computer conceptualized?

- (a) Difference Engine
- (b) Analytical Engine
- (c) Turing Machine
- (d) ENIAC
- (e) Colossus

Q65. Which of the following is not a UPI app?

- (a) Google Pay
- (b) PhonePe
- (c) Paytm
- (d) Adobe Acrobat
- (e) BHIM

Q66. What is Blockchain?

- (a) A centralized database
- (b) A type of cryptocurrency
- (c) A distributed ledger on a peer-to-peer network
- (d) A software for creating websites
- (e) A tool for data encryption

Q67. What is the function of the Format Painter in MS Word?

- (a) To copy text
- (b) To paste text
- (c) To apply the same formatting from one part of the document to another
- (d) To print the document
- (e) To insert a table above

Q68. Under which tab is the Footnote option found in MS Word?

- (a) Home
- (b) Insert
- (c) References
- (d) Review
- (e) View

Q69. What is a digital signature in an email used for?

- (a) Encrypting the email content
- (b) Formatting the email text
- (c) Verifying the sender's identity and ensuring message integrity
- (d) Attaching files to the email
- (e) Automatically replying to emails

Q70. Which of the following is a valid email address?

- (a) user@domain
- (b) user.domain.com
- (c) user@domain.com
- (d) user@domain@com
- (e) user#domain.com
- (f) None of the above

Q71. Where does a deleted email go?

- (a) Inbox
- (b) Sent Items
- (c) Drafts
- (d) Trash Folder
- (e) Spam

Q72. What is the full form of WAN?

- (a) Wireless Area Network
- (b) Wide Area Network
- (c) Web Area Network
- (d) Wired Area Network
- (e) World Area Network

Q73. Which of the following is fastest primary memory?

- (a) Hard Drive
- (b) SSD
- (c) RAM
- (d) ROM
- (e) DVD

Q74. Which of the following is not an operating system?

- (a) Windows
- (b) Linux
- (c) Android
- (d) Microsoft Office
- (e) macOS

Q75. What is the function of the taskbar?

- (a) To save files
- (b) To display the desktop wallpaper
- (c) To provide access to programs and display open programs, even if minimized
- (d) To shut down the computer
- (e) To format the hard drive

Q76. What is Linux?

- (a) A web browser
- (b) An operating system
- (c) A word processing software
- (d) A spreadsheet program
- (e) An email client

Q77. Which of the following is used to hold data temporarily in a computer processor?

- (a) Hard Drive
- (b) RAM
- (c) Register
- (d) Cache Memory
- (e) SSD

Q78. Which one of the following is not true?

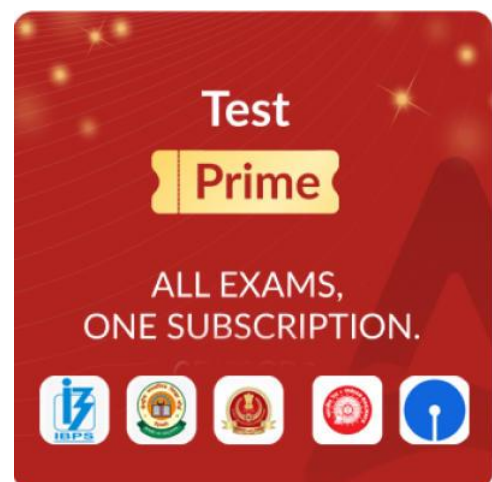
- (a) You can also create graphs in Excel sheets.
- (b) Excel sheets have the extension *.doc.
- (c) A new workbook is called "Book 1".
- (d) You can have Word and Excel open together.
- (e) Excel supports multiple worksheets in a single workbook.

Q79. The process of retaining data for future use is called:

- (a) Reading
- (b) Writing
- (c) Storing
- (d) Coding
- (e) Processing

Q80. What is the shortcut key for underlining text in MS Word?

- (a) Ctrl + I
- (b) Ctrl + U
- (c) Ctrl + B
- (d) Ctrl + A
- (e) None of the above



Solutions

S1. Ans.(c)

Sol. The label of the first row in MS Excel is **1**. Excel rows are numbered sequentially starting from 1, while columns are labeled alphabetically starting from A.

S2. Ans.(a)

Sol. In MS Word, the title or page number is defined using the **Header and Footer**. The Header is the section at the top of each page where titles can be placed, and the Footer is the section at the bottom where page numbers and other information can be inserted.

S3. Ans.(d)

Sol. The correct ascending order of page sizes is **A5(5.83"×8.27") < A4(8.27"×11.69") < Legal(8.5"×14")**. A5 is the smallest, followed by A4, and Legal is the largest among these options.

S4. Ans.(a)

Sol. The shortcut key for inserting a page break in MS Word is **Ctrl + Enter**. This command quickly inserts a page break at the cursor's current position, moving the text following the cursor to the beginning of the next page.

S5. Ans.(a)

Sol. The function key for Help in most software applications is **F1**. Pressing F1 typically opens the Help documentation or support page relevant to the software being used.

S6. Ans.(b)

Sol. The base of the octal number system is **8**. This means it uses eight digits, from 0 to 7, to represent numbers.

S7. Ans.(c)

Sol. A **Dot Matrix Printer** is an example of an impact printer. It works by striking a print head against an ink ribbon to produce characters on paper, making physical contact, unlike non-impact printers such as inkjet and laser printers.

S8. Ans.(c)

Sol. Disk Defragmenter is an example of **Utility Software**. It is used to reorganize fragmented data on a disk drive so that files are stored in contiguous blocks, which can improve the efficiency and speed of data access.

S9. Ans.(b)

Sol. The IP address range for Class A is **0-127**. Class A addresses are designed for very large networks, with the first octet ranging from 0 to 127. However, addresses starting with 127 are reserved for loopback and diagnostic functions.

S10. Ans.(c)

Sol. The symbol used for absolute cell reference in MS Excel is the **\$ (Dollar) sign**. It locks the reference to a specific cell, so when the formula is copied to another cell, the reference does not change. For example, **\$A\$1** refers to an absolute reference to cell A1.

S11. Ans.(c)

Sol. The **Word Wrap feature** in MS Excel is used to display cell contents on multiple lines within the same cell. This makes the content easier to read by preventing long text from extending beyond the cell boundary.

S12. Ans.(a)

Sol. The binary equivalent of the decimal number 10 is **1010**. Converting from decimal to binary involves dividing the number by 2 and recording the remainders, which results in the binary representation 1010.

S13. Ans.(c)

Sol. In Excel, formulas always start with the **equal sign (=)**. This indicates to Excel that the following string of characters should be interpreted as a formula, not as regular text or numbers.

S14. Ans.(b)

Sol. The shortcut key for center alignment in MS Word is **Ctrl + E**. This command centers the selected text within the document, making it evenly spaced between the left and right margins.

S15. Ans.(d)

Sol. **All statements 1, 2, 3, 4, and 5 are true.** ChatGPT is a type of artificial intelligence developed by OpenAI that can understand and generate human-like text, perform language translation, and be used for programming assistance.

S16. Ans.(b)

Sol. The alphabets used in the hexadecimal number system are **6(A, B, C, D, E, F)**. Hexadecimal is a base-16 number system, using the digits 0-9 and the letters A-F to represent values.

S17. Ans.(d)

Sol. Real-time processing and time-sharing systems were introduced during the **Fourth Generation** of computers. This era was characterized by the development of microprocessors and the widespread use of integrated circuits. These advancements made it possible to handle multiple tasks simultaneously and respond to real-time inputs.

S18. Ans.(c)

Sol. The Ctrl + F6 shortcut key in MS Excel **switches to the next workbook window when more than one workbook window is open**. This shortcut helps users quickly navigate between multiple open workbooks.

S19. Ans.(d)

Sol. In MS Word, the option to insert a citation can be found under the **References** tab. This tab includes tools for adding citations, managing sources, and creating bibliographies, making it easier to reference and cite sources in your document.

S20. Ans.(c)

Sol. An IPv4 address uses **32 bits**. These bits are typically represented as four decimal numbers separated by dots, with each number ranging from 0 to 255 (e.g., 192.168.1.1).

S21. Ans.(a)

Sol. The use of a watermark in a document is **to prevent unauthorized copying** or distribution. It serves as a visible mark indicating the document's ownership or copyright status, deterring misuse.

S22. Ans.(c)

Sol. **Solaris** is not programming software; it is a proprietary Unix operating system originally developed by Sun Microsystems. The other options listed are all integrated development environments (IDEs) used for programming.

S23. Ans.(c)

Sol. **Firmware** is the software that is substituted for hardware and stored in ROM. It is a specific class of computer software that provides low-level control for a device's specific hardware. BIOS (Basic Input/Output System) is an example of firmware.

S24. Ans.(d)

Sol. The correct formula to sum cells A1 and A2 in Excel is **=SUM(A1:A2)**. This formula adds the values in the specified range of cells.

S25. Ans.(c)

Sol. The shortcut key to run macros in MS Excel is **Alt + F8**. This opens the Macro dialog box, allowing users to run, create, or edit macros.

S26. Ans.(d)

Sol. Hierarchical, Network, Relational, and Distributed are recognized types of databases based on their structure and functionality, while **"private"** is not a specific database type.

S27. Ans.(d)

Sol. The main function of the Control Unit (CU) in a computer is **controlling the sequence of operations**. It directs the operation of the processor by fetching instructions, decoding them, and managing the execution of instructions by coordinating with other components.

S28. Ans.(c)

Sol. The "I'm Feeling Lucky" button on the Google search page **sends you directly to the first result of the search query**. This feature is designed to save time by bypassing the search results page and taking you straight to the most relevant website.

S29. Ans.(a)

Sol. The basic logic gates are **AND, OR, and NOT**. These gates perform fundamental Boolean operations and are the building blocks of digital circuits. The other gates (NAND, NOR, XOR, etc.) are derived from these basic gates.

S30. Ans.(c)

Sol. SSL (Secure Sockets Layer) was originally developed by **Netscape**. SSL is a standard security technology for establishing an encrypted link between a server and a client, ensuring that all data transmitted remains private and integral.

S31. Ans.(b)

Sol. Pascal is a **high-level programming language**. It was developed for teaching programming concepts and for general-purpose programming. It is known for its clear syntax and strong typing, making it an excellent language for structured programming and data structuring.

S32. Ans.(d)

Sol. The type of memory commonly used in mobile phones for primary storage is **Flash Memory**. Flash memory is a non-volatile storage medium that retains data even when power is disconnected. It is commonly used in mobile phones and other portable devices due to its compact size, low power consumption, and ability to store data without the need for constant power supply. Flash memory is used primarily for storage, while RAM (Random Access Memory) is used for code execution and calculations on the data retrieved from storage.

S33. Ans.(a)

Sol. GIF (Graphics Interchange Format) and PNG (Portable Network Graphics) are **image formats**. They are used for storing and displaying images, with GIF supporting animation and PNG offering lossless compression for high-quality images.

S34. Ans.(d)

Sol. The **NIC (Network Interface Card)** uses a 48-bit addressing scheme known as the MAC (Media Access Control) address. This unique hardware identifier is assigned to network interfaces for communication on the physical network segment, ensuring each device on a local network has a distinct address.

S35. Ans.(b)

Sol. **NOR and NAND gates** are known as universal gates because they can be used to create any other type of logic gate. They are fundamental building blocks in digital circuit design.

S36. Ans.(c)

Sol. The 'Merge and Center' feature in MS Excel **combines two or more selected cells into one cell and centers the content in the new merged cell.** This is often used for formatting headings or titles across multiple columns.

S37. Ans.(b)

Sol. The first computer virus, known as the "Creeper virus," appeared in **1971**. It was an experimental self-replicating program created by Bob Thomas at BBN Technologies. The virus infected ARPANET, the precursor to the internet.

S38. Ans.(a)

Sol. Phishing is a form of social engineering and a scam where attackers deceive people into revealing sensitive information or installing malware such as viruses, worms, adware, or ransomware. It often involves pretending to be a trustworthy entity in electronic communications.

S39. Ans.(a)

Sol. Standby mode (or Sleep mode) makes it easy for the computer user to quickly resume work. It saves the current state of the computer in RAM and allows for a quick resume of operations, consuming minimal power.

S40. Ans.(b)

Sol. Direct Action Virus is also known as a **non-resident virus**. It gets installed and stays hidden in your computer's memory, where it executes its payload when the infected file is accessed, but it does not reside in the system's memory after execution.

S41. Ans.(c)

Sol. The shortcut key for removing character formatting in MS Word 2013 is **Ctrl + Spacebar**. This resets the selected text to the default font formatting.

S42. Ans.(d)

Sol. The minimum number of rows and columns in an MS Word document table is **1 row and 1 column**.

S43. Ans.(c)

Sol. The file extensions .doc and .docx are associated with **MS Word**. They are used for Microsoft Word document files, with .docx being the newer format introduced with Word 2007.

S44. Ans.(c)

Sol. A **modem (modulator-demodulator)** is a device that converts digital signals to analog signals and vice versa, allowing computers to communicate over telephone lines or cable systems.

S45. Ans.(d)

Sol. The capacity of a CD-ROM is typically around **750 MB**. This capacity allows it to store a substantial amount of data, such as software applications, audio files, and documents.

S46. Ans.(c)

Sol. Microsoft Access is a database software. It is used to store, manage, and retrieve data efficiently, whereas the other options are not designed for database management.

S47. Ans.(a)

Sol. SUM is a function in Excel used to add together a range of cells. The other options are commands or features not specific to Excel functions.

S48. Ans.(b)

Sol. The bottom section of a document is called the **Footer**. The Footer is located at the bottom of each page and can contain additional information such as page numbers, footnotes, or other references.

S49. Ans.(c)

Sol. A computer cannot boot if the **operating system** is not present. The operating system is essential for managing hardware and software resources and providing services for computer programs. Without it, the computer cannot start up and function properly.

S50. Ans.(d)

Sol. Office 365, now known as Microsoft 365, is a subscription-based service that allows users to work online with MS Office applications such as Word, Excel, and PowerPoint through a web browser.

S51. Ans.(c)

Sol. The shortcut key for bolding text in MS Word is **Ctrl + B**. This command applies bold formatting to the selected text or toggles the bold formatting on and off.

S52. Ans.(d)

Sol. ROM (Read-Only Memory) is non-volatile memory. It retains its data even when the computer is turned off, unlike volatile memory such as RAM, which loses its data when power is lost.



S53. Ans.(a)

Sol. **Head & Ribbon** is not a part of a laser printer. Laser printers use a toner cartridge, drum unit, fuser, and laser to print documents, whereas head and ribbon are components used in dot matrix printers.

S54. Ans.(b)

Sol. The descending order of size is: **TB (Terabyte), GB (Gigabyte), MB (Megabyte), KB (Kilobyte)**. This sequence arranges the data sizes from largest to smallest.

S55. Ans.(d)

Sol. **Firefox** is not a tool in MS Word. It is a web browser, while the other options are features and tools available in MS Word.

S56. Ans.(b)

Sol. Artificial Intelligence (AI) involves **making a machine intelligent**, enabling it to perform tasks that typically require human intelligence, such as reasoning, learning, and problem-solving.

S57. Ans.(b)

Sol. The shortcut key to save a document in most software applications, including MS Word and Excel, is **Ctrl + S**. This command saves the current document.

S58. Ans.(d)

Sol. **Satellite communication** is used for talking via television. It enables the transmission of signals for television broadcasting over long distances, allowing for live communication and broadcasts.

S59. Ans.(c)

Sol. A **UPS (Uninterruptible Power Supply)** provides power backup during an electricity outage. It ensures that electronic devices continue to operate temporarily during a power failure, preventing data loss and hardware damage.

S60. Ans.(c)

Sol. A **plotter** is not an input device. It is an output device used for printing vector graphics.

S61. Ans.(a)

Sol. The shortcut key to insert a new slide in PowerPoint is **Ctrl + M**. This command quickly adds a new slide to the presentation, making it easy to expand the content.

S62. Ans.(c)

Sol. The internet as we know it today was effectively born on **January 1, 1983**, when ARPANET adopted the TCP/IP protocol, marking the beginning of the modern internet.

S63. Ans.(c)

Sol. The valid PowerPoint file extensions are **.ppt and .pptx**. These extensions are used for Microsoft PowerPoint presentation files, with .pptx being the newer format introduced with PowerPoint 2007.

S64. Ans.(b)

Sol. The first mechanical computer conceptualized in 1837 was **the Analytical Engine**. It was designed by Charles Babbage and is considered the precursor to modern computers, capable of performing a variety of calculations using punched cards.

S65. Ans.(d)

Sol. **Adobe Acrobat** is not a UPI app. It is a software application used for viewing, creating, and managing PDF documents, while the other options are UPI apps used for digital payments.

S66. Ans.(c)

Sol. Blockchain is **a distributed ledger on a peer-to-peer network**. It allows multiple parties to have simultaneous access to a constantly updated digital ledger that is secure, transparent, and immutable.

S67. Ans.(c)

Sol. The Format Painter in MS Word is used **to apply the same formatting from one part of the document to another**. It helps in quickly copying and pasting formatting styles.

S68. Ans.(c)

Sol. The Footnote option is found under the **References** tab in MS Word. This tab provides tools for adding footnotes, endnotes, citations, and bibliographies to your document.

S69. Ans.(c)

Sol. A digital signature in an email is used for **verifying the sender's identity and ensuring the message's integrity**. It provides authentication and non-repudiation, ensuring the recipient that the email has not been altered and confirming the sender's identity.

S70. Ans.(c)

Sol. The correct format for a valid email address is **user@domain.com**. It includes a local part (user), an @ symbol, and a domain part (domain.com).

S71. Ans.(d)

Sol. When an email is deleted, it is moved to the **Trash Folder**. This folder temporarily stores deleted emails until they are permanently removed.

S72. Ans.(b)

Sol. WAN stands for **Wide Area Network**. It is a telecommunications network that extends over a large geographical area for the purpose of computer networking.

S73. Ans.(c)

Sol. RAM (Random Access Memory) is the fastest primary memory compared to Hard Drives, SSDs, ROM, and DVDs. It provides quick read and write access for the CPU to execute programs and process data.

S74. Ans.(d)

Sol. Microsoft Office is not an operating system. It is a suite of productivity applications, whereas Windows, Linux, Android, and macOS are all operating systems.

S75. Ans.(c)

Sol. The taskbar provides access to programs and displays open programs on the desktop, even if they are minimized. It is a key interface element in operating systems, allowing users to switch between and manage running applications easily.

S76. Ans.(b)

Sol. Linux is an operating system. It is an open-source, Unix-like OS used for a variety of computing purposes, including servers, desktops, and embedded systems.

S77. Ans.(c)

Sol. A register is a small, fast storage location within a computer processor used to hold data temporarily during processing. Registers are crucial for the CPU's operation, enabling quick data access and manipulation.

S78. Ans.(b)

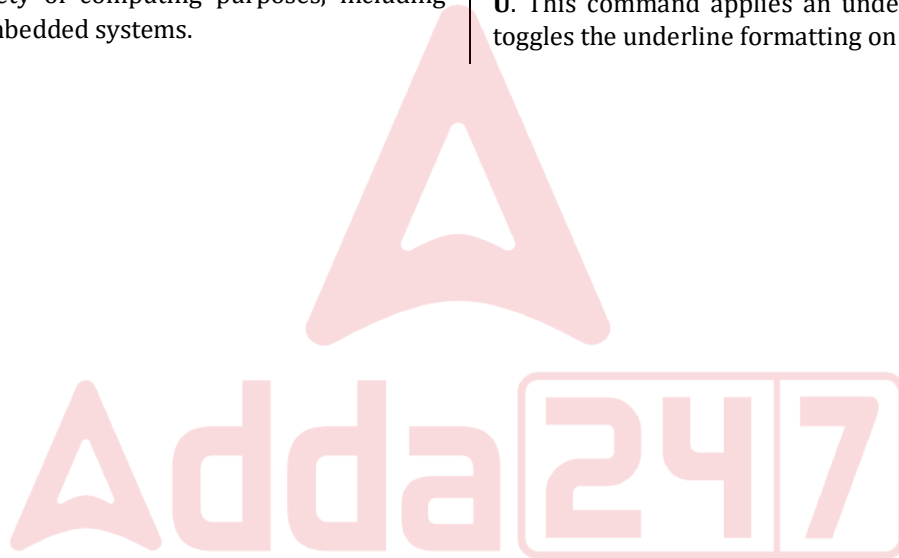
Sol. Excel sheets do not have the extension *.doc. The correct file extensions for Excel sheets are *.xls or *.xlsx. The other statements about Excel are true, including creating graphs, naming new workbooks "Book 1," and having multiple worksheets.

S79. Ans.(c)

Sol. Storing is the process of retaining data for future use. It involves saving data in memory or on a storage device so that it can be accessed and used later.

S80. Ans.(b)

Sol. The shortcut key for underlining text in MS Word is **Ctrl + U**. This command applies an underline to the selected text or toggles the underline formatting on and off.



Q1. Workbook is a collection of _____ in MS Excel?

- (a) page set-up
- (b) buttons
- (c) diagrams
- (d) worksheets
- (e) None of the above

Q2. The _____ menu contains the options to add symbols in a Word document.

- (a) Home
- (b) Insert
- (c) Review
- (d) Mailing
- (e) None of the above

Q3. Which among the following is the short cut key for slideshow?

- (a) F4
- (b) F5
- (c) F6
- (d) F7
- (e) F12

Q4. Word is a word processor developed by Microsoft. In MS Word spelling check is a feature available in which tab?

- (a) Page Layout
- (b) Home
- (c) Insert
- (d) Review
- (e) None of the above

Q5. Which term is not related with font?

- (a) Font face
- (b) Font size
- (c) Font color
- (d) Font grammar
- (e) None of the above

Q6. Which key should you use to indent the first paragraph of your report?

- (a) tab key
- (b) return key
- (c) space bar
- (d) shift key
- (e) None of the above

Q7. What is decorative text called, that you can add to a document?

- (a) Table
- (b) Symbol
- (c) WordArt
- (d) Image
- (e) None of the above

Q8. If a word is typed that is not in MS Word's dictionary, a wavy underline appears below the word. What is the color of the underline that appears in this situation?

- (a) Blue
- (b) Red
- (c) Green
- (d) Black
- (e) None of the above

Q9. Moving a paragraph in MS-word from one place to another can be done by which of the following actions?

- (a) Select, copy
- (b) Select all, cut
- (c) Select, cut and paste
- (d) Select, design
- (e) None of the above

Q10. Each box in a spreadsheet is called a _____.

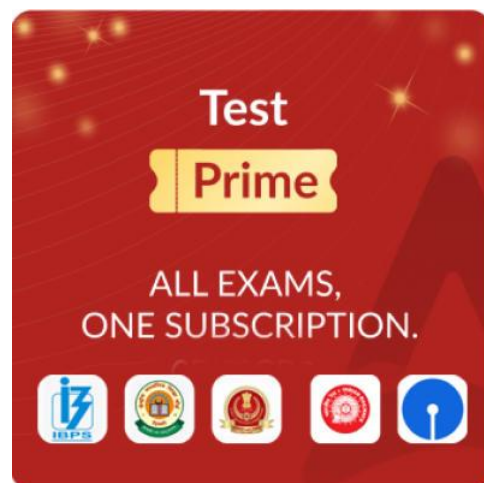
- (a) Cell
- (b) Block
- (c) Field
- (d) Table
- (e) None of the above

Q11. Which of the following characteristics is used to compute dynamically the results from Excel data?

- (a) Go to
- (b) Table
- (c) Chart
- (d) Formula and Function
- (e) None of the above

Q12. Which feature helps to search the text through reference material such as dictionaries, encyclopedias and translation services?

- (a) Translation
- (b) Research
- (c) Find
- (d) Font
- (e) None of the above



Q13. Which of the following key use, when you want to make all letters capital without having to use the shift key for each character?

- (a) shifter
- (b) upper case
- (c) caps lock key
- (d) icon
- (e) None of the above

Q14. Which of the following features is used to count the number of pages, words, characters, paragraphs and lines in a Word document?

- (a) Orientation
- (b) Page Count
- (c) Word Count
- (d) Margin
- (e) None of the above

Q15. Which of the following is not an in-built software application found in MS windows?

- (a) Paint
- (b) CD Player
- (c) Disk Defragmenter
- (d) MS Word
- (e) None of the above

Q16. _____ is also known as inkless printer.

- (a) Thermal printer
- (b) Inkjet printer
- (c) OCR
- (d) Dot Matrix printer
- (e) None of the above

Q17. Digital computers use a _____ system to encode data and programs.

- (a) Semiconductor
- (b) Decimal
- (c) Binary
- (d) RAM
- (e) None of the above

Q18. Which of the following is a video format?

- (a) JPEG
- (b) GIF
- (c) FLV
- (d) PNG
- (e) None of the above

Q19. Which of the following hardware or software designed to guard against unauthorized access to a computer network?

- (a) Hacker-proof program.
- (b) Firewall.
- (c) Hacker-resistant server.
- (d) Encryption safe wall.
- (e) None of the above

Q20. A simple automated program that scans the web for specific data and insert into a designated database is _____.

- (a) Web mining
- (b) Web database integration
- (c) Web crawler
- (d) Web scanning
- (e) None of the above

Q21. What is the software frequently utilized by end users called (like Word, PowerPoint)?

- (a) System Software
- (b) System Appliances
- (c) Application Software
- (d) Operating System
- (e) None of the above

Q22. Web cam is an:

- (a) input unit device
- (b) output unit device
- (c) processing device
- (d) Input and Output device
- (e) None of the above

Q23. Which part of the hardware compensates the difference between the CPU and peripherals?

- (a) Scanner
- (b) Printer
- (c) Video card
- (d) Interface
- (e) None of the above

Q24. A device that not only provides surge protection, but also furnishes the computer with battery backup power during a power outage is _____

- (a) Battery strip
- (b) UPS
- (c) Surge strip
- (d) USB
- (e) None of the above

Q25. _____ is a set of computer programs used on a computer to help perform tasks.

- (a) An instruction
- (b) Memory
- (c) A processor
- (d) Software
- (e) None of the above

Q26. Which part of the CPU coordinates all the activities of a computer system?

- (a) Motherboard
- (b) Coordination board
- (c) Control unit
- (d) Arithmetic and logic unit
- (e) None of the above

Q27. Which of the following converts all the source code into machine code, creating an executable file.

- (a) linker
- (b) assembler
- (c) compiler
- (d) interpreter
- (e) None of the above

Q28. What type of telecommunications hardware allows you to access the web?

- (a) Browser
- (b) Modem
- (c) FTP protocol
- (d) IRC
- (e) None of the above

Q29. Which type of software coordinates the interaction of technology devices?

- (a) Application software
- (b) RAM
- (c) Utility software
- (d) Systems software
- (e) None of the above

Q30. Which among the following is a software that uses a pattern-matching technique to examine all files on a disk looking for harmful code?

- (a) Multimedia Player
- (b) Backup software
- (c) Driver imaging
- (d) Antivirus Software
- (e) None of the above

Q31. Which of the following software programs that allow you to legally copy files and give them away at no cost?

- (a) Time sharing
- (b) Public domain
- (c) Shareware
- (d) Commercial
- (e) None of the above

Q32. A DVD is an example of a/an:

- (a) Output device
- (b) Hard disc
- (c) Optical disc
- (d) Solid-state storage device
- (e) None of the above

Q33. What is a specialized software program that allows input and output devices to communicate with the rest of the computer system?

- (a) Utility driver
- (b) Utility program
- (c) Data compression utility
- (d) Device driver
- (e) None of the above

Q34. A device that connects to a network without the use of a cable is said to be:

- (a) Distributed
- (b) Non-Wired
- (c) Centralized
- (d) Wireless
- (e) None of the above

Q35. The software that is used to create text-based documents is referred as:

- (a) DBMS
- (b) Suits
- (c) Spreadsheets
- (d) Word processor
- (e) None of the above

Q36. A _____ is an electronic device that process data, converting it into information.

- (a) processor
- (b) computer
- (c) case
- (d) stylus
- (e) None of the above

Q37. Floppy drives, hard drives and tape drives all use a _____ to read data.

- (a) laser
- (b) sensor
- (c) magnet
- (d) pen
- (e) None of the above

Q38. Which of the following software posts unwanted advertisements on client's computer?

- (a) Virus
- (b) Malware
- (c) Worm
- (d) Adware
- (e) None of the above

Q39. Which of the following mouse can work on any surface from a granite countertop to a carpet?

- (a) Mechanical mouse
- (b) Optical mouse
- (c) Laser mouse
- (d) Blue Track mouse
- (e) None of the above

Q40. Which of the following keeps a list of web pages you have visited during the current session?

- (a) history
- (b) cache
- (c) favorites
- (d) trail
- (e) None of the above

Solutions**S1. Ans.(d)****Sol.** Workbook is a collection of worksheets in MS Excel.**S2. Ans.(b)****Sol.** The Insert menu in MS Word contains the Symbol option that allows you to insert symbols in the document.**S3. Ans.(b)****Sol.** F5 is the shortcut key for slideshow.**S4. Ans.(d)****Sol.** Word is a word processor developed by Microsoft. In MS Word spelling check is a feature available in Review tab.**S5. Ans.(d)****Sol.** There is nothing such as font grammar.**S6. Ans.(a)****Sol.** Tab Key can be used for indentation.**S7. Ans.(c)****Sol.** WordArt is decorative text that you can add to a document. You can make changes to WordArt, such as the font size and the text colour, by using the drawing tools options available automatically after you insert or select the WordArt in a document.**S8. Ans.(b)****Sol.** This indicates either a possible spelling error or that Word doesn't recognize a word, such as a proper name or place. Green underline- Word thinks that grammar should be revised. Blue underline- A word is spelled correctly but does not seem to be the correct word for the sentence.**S9. Ans.(c)****Sol.** You can move a letter, word or paragraph by first selecting it, cutting it and then pasting it to the intended location.**S10. Ans.(a)****Sol.** Each box in a spreadsheet is called a cell.**S11. Ans.(d)****Sol.** Functions are predefined formulas and are already available in Excel. They are used to compute dynamically the results from Excel data.**S12. Ans.(b)****Sol.** In the Research Option dialog box, you can select from dictionaries, thesauruses, and various Internet research Web sites in several languages. The Research Options services available depend on the language of the version of Office and any services that we add to the Research Options dialog box.**S13. Ans.(c)****Sol.** Caps Lock key use, when you want to make all letters capital without having to use the shift key for each character.**S14. Ans.(c)****Sol.** The Word Count command displays the total number of pages, words and lines in a document.**S15. Ans.(d)****Sol.** MS Word is not an in-built application of windows. However, it can be downloaded.**S16. Ans.(a)****Sol.** Thermal printers are inkless.**S17. Ans.(c)****Sol.** Digital Computers use Binary System.**S18. Ans.(c)****Sol.** FLV (Flash Video Format), the FLV file extension is a file that uses Adobe Flash Player or Adobe Air to transmit video/audio over the internet. Flash Video has long been the standard video format used by nearly all embedded video on the internet including the videos found on YouTube, Hulu, and many more websites.**S19. Ans.(b)****Sol.** A firewall is either hardware or software, or a combination of both. Firewall prevents the unauthorized access to or from a private network.**S20. Ans.(c)****Sol.** A web crawler (also known as a web spider or web robot) is a program or automated script which browses the World Wide Web in a methodical, automated manner. This process is called Web crawling or spidering.**S21. Ans.(c)****Sol.** Application software is a program or group of programs designed for end users. An application program (app or application for short) is a computer program designed to perform a group of coordinated functions, tasks, or activities for the benefit of the user. Examples of an application include a word processor, a spreadsheet, an accounting application, a web browser etc.

S22. Ans.(a)

Sol. A webcam is a hardware camera and input device that connects to a computer and the Internet and captures either still pictures or motion video of a user or other object.

S23. Ans.(d)

Sol. Interface part of the hardware compensates the difference between the CPU and peripherals.

S24. Ans.(b)

Sol. An uninterruptible power supply, also uninterruptible power source, UPS or battery/flywheel backup, is an electrical apparatus that provides emergency power to a load when the input power source or mains power fails.

S25. Ans.(d)

Sol. Software is a set of computer programs used on a computer to help perform tasks. Computer software, or simply software, is that part of a computer system that consists of encoded information or computer instructions, in contrast to the physical hardware from which the system is built.

S26. Ans.(a)

Sol. A motherboard is that part of a CPU which coordinates all the activities of a computer system. Various types of hardware are attached on the motherboard to facilitate these activities.

S27. Ans.(c)

Sol. Compiler converts all source code of high-level programming language into low level machine code.

S28. Ans.(b)

Sol. A modem is a device or program that enables a computer to transmit data over, for example, telephone or cable lines. Computer information is stored digitally, whereas information transmitted over telephone lines is transmitted in the form of analog waves.

S29. Ans.(d)

Sol. System software is a type of computer program that is designed to run a computer's hardware and application programs.

S30. Ans.(d)

Sol. Antivirus or anti-virus software, sometimes known as anti-malware software, is computer software used to prevent, detect and remove malicious software.

S31. Ans.(c)

Sol. shareware is software that allows a user to try all or part of the program for free before buying it.

S32. Ans.(c)

Sol. A DVD (Digital Versatile Disc) is an example of an optical disc. Optical discs use laser technology to read and write data. DVDs are commonly used for storing and distributing large amounts of digital data, such as movies, software, and other multimedia content. They are read by DVD players or DVD drives in computers and other devices.

S33. Ans.(d)

Sol. A device driver is a particular form of software application that is designed to enable interaction with hardware devices. Without the required device driver, the corresponding hardware device fails to work.

S34. Ans.(d)

Sol. A device that connects to a network without the use of a cable is said to be Wireless.

S35. Ans.(d)

Sol. Word processors are used to create text-based documents.

S36. Ans.(b)

Sol. A computer is an electronic device that process data, converting it into information.

S37. Ans.(c)

Sol. Floppy drives, hard drives and tape drives all use a magnet to read data.

S38. Ans.(d)

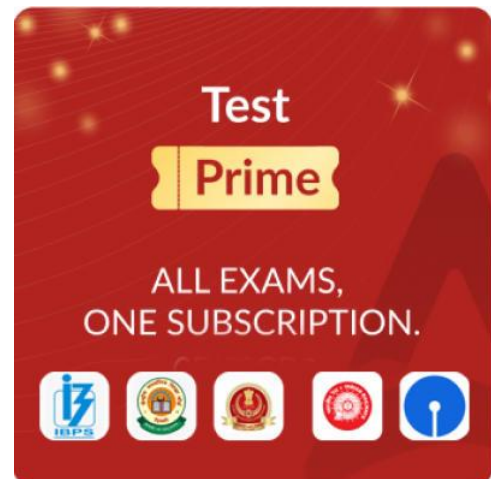
Sol. Adware is a software that is used to post unwanted advertisements. Generally, these advertisements are posted as popups.

S39. Ans.(d)

Sol. BlueTrack mouse is a type of mouse that is based on the Blue Track Technology and can work on any surface from granite countertop to the carpet.

S40. Ans.(a)

Sol. History keeps a list of web pages you have visited during the current session.



Q1. _____ are computers that support hundreds or thousands of users simultaneously.

- (a) Mainframe computer
- (b) Super computer
- (c) Mini computer
- (d) Micro computer
- (e) None of the above

Q2. Zip is a -----file.

- (a) Executable File
- (b) Compressed File
- (c) System File
- (d) Processing File
- (e) None of the above

Q3. What is the meaning of MICR?

- (a) Magnetic Ink Character Recognition
- (b) Magnetic Intelligence Character Recognition
- (c) Magnetic Information Cable Recognition
- (d) Magnetic Insurance Cases Recognition
- (e) None of the above

Q4. which of the following is an intersection of a row and column in a spreadsheet?

- (a) Formula
- (b) Worksheet
- (c) Address
- (d) Cell
- (e) None of the above

Q5. which of the following is a set of rules computers use to talk to each other?

- (a) Syntax
- (b) HTML
- (c) DOS command
- (d) Protocol
- (e) None of the above

Q6. Which of the following topology have a central controller or hub?

- (a) Star
- (b) Mesh
- (c) Ring
- (d) Bus
- (e) None of the above

Q7. Which tracking program records every keystroke you make on the computer?

- (a) ITrack/ULead
- (b) Key logging
- (c) eFollow
- (d) Stalking software
- (e) None of the above

Q8. To place your image into a live video conference, a _____ is usually used.

- (a) Webcam
- (b) Video camera
- (c) Digital camera
- (d) Scanner
- (e) None of the above

Q9. What are general purpose computers used for?

- (a) Accounting
- (b) Creating a small database
- (c) Performs calculation
- (d) All of the above
- (e) None of the above

Q10. In MS-Word, ____is a series of commands and instructions that you group together as a single command to accomplish a task automatically.

- (a) Macro
- (b) Template
- (c) Structure
- (d) Balloons
- (e) None of the above

Q11. Every computer connected to an internet must have a distinct_____

- (a) UPS address
- (b) proxy server
- (c) IP address
- (d) domain name
- (e) None of the above

Q12. The Internet allows you to:

- (a) send electronic mail
- (b) view web pages
- (c) connect to servers all around the world
- (d) All of the above
- (e) None of the above

Q13. Which of the following is the communication protocol that sets the standard used by every computer that accesses web-based information?

- (a) XML
- (b) DML
- (c) HTTP
- (d) HTML
- (e) None of the above

Q14. Which of the following is a Web browser?

- (a) Paint
- (b) PowerPoint
- (c) Edge
- (d) Word
- (e) None of the above

Q15. Which of the following must be contained in a URL?

- (a) A protocol identifier
- (b) The letters, www
- (c) The unique registered domain name
- (d) A protocol identifier, www and the unique registered domain name
- (e) None of the above

Q16. You can organize your bookmarks using _____.

- (a) structures
- (b) containers
- (c) folders
- (d) menus
- (e) None of the above

Q17. Which among the following was the first graphical web browser?

- (a) Mosaic
- (b) WAIS
- (c) CERN
- (d) Gopher
- (e) None of the above

Q18. Generally to copy data from a remote compute/internet to a local computer is called _____.

- (a) Upload
- (b) Editing
- (c) Download
- (d) E-mail
- (e) None of the above

Q19. Which of the following is used to close a tab on a browser?

- (a) Ctrl + T
- (b) Ctrl + W
- (c) Ctrl + A
- (d) Ctrl + Y
- (e) None of the above

Q20. What is a hyperlink?

- (a) It is a text or image that you can click on to jump to a new document/page.
- (b) It is an input type for multimedia files.
- (c) It is a collection or directory of web pages.
- (d) It is the home page of a site.
- (e) None of the above

Q21. A commonly used graphic format for the Web is _____?

- (a) GIF
- (b) BMP
- (c) TXT
- (d) LMP
- (e) TFT

Q22. Which command is used to create a file in LINUX?

- (a) touch
- (b) make
- (c) dir
- (d) mkdir
- (e) None of the above

Q23. What is the technology used to read pencil or pen marks on a multiple-choice answer sheet called?

- (a) OMR
- (b) MICR
- (c) OCR
- (d) CPU
- (e) None of the above

Q24. The keyboard shortcut to restart your computer is _____?

- (a) Alt + F4
- (b) Ctrl + F4
- (c) Ctrl + Alt + Del
- (d) Alt + Del
- (e) Shift + Del

Q25. Saving is the process _____?

- (a) To copy document from memory to storage
- (b) To change the content of any document
- (c) To change the display or entire document
- (d) To develop document by entering text using keyboard
- (e) None of the above

Q26. The shortcut key to search for a file or folder is _____?

- (a) F4
- (b) F1
- (c) F2
- (d) F3
- (e) F11

Q27. The computer's capability of distinguishing spoken words is called _____?

- (a) Voice analysis
- (b) Speech acknowledgment
- (c) Voice recognition
- (d) Speech interpretation
- (e) None of the above

Q28. A character is represented in EBCDIC by ____?

- (a) 1 bit
- (b) 4 bits
- (c) 8 bits
- (d) 16 bits
- (e) 64 bits

Q29. One megabyte equals approximately ____?

- (a) 1,000 bits
- (b) 1,000 bytes
- (c) 1 million bytes
- (d) 1 million bits
- (e) 2000 bytes

IBPS RRB Computer Capsule 2025 (PO and Clerk)

Q30. Which of the following is required to create a HTML document?

- (a) Telnet
- (b) Browser
- (c) Internet
- (d) Text Editor
- (e) None of the above

Q31. It helps to connect a computer from internet?

- (a) Browser
- (b) Netfit
- (c) Windows-95
- (d) Cable
- (e) None of the above

Q32. ICMP is used for-

- (a) Addressing
- (b) Forwarding
- (c) Multicasting
- (d) Error reporting
- (e) None of the above

Q33. For document exchange on network which of the following is not necessary?

- (a) Floppy
- (b) Telephone line
- (c) Connector
- (d) Satellite
- (e) None of the above

Q34. A code of webpage has been written by using?

- (a) Hyper text markup language
- (b) 5th generation language
- (c) Winzi p
- (d) Perl
- (e) None of the above

Q35. When pointer points then pointer appears like a hand?

- (a) Grammar error
- (b) Hyperlink

- (c) Screen tip
- (d) Spelling error
- (e) None of the above

Q36. The first political party of India which created its own web-site on internet is?

- (a) Bhartiya Janata Party
- (b) Lok Janshakti Party
- (c) Rastriya Janta Dal
- (d) Samajwadi Party
- (e) None of the above

Q37. Which state of India first available the telephone directory on internet?

- (a) Sikkim
- (b) Arunachal Pradesh
- (c) Andhra Pradesh
- (d) Bihar
- (e) Uttar Pradesh

Q38. Which of the following cannot be part of an email address?

- (a) Period (.)
- (b) At sign (@)
- (c) Space ()
- (d) Underscore (_)
- (e) None of the above

Q39. Who runs internet?

- (a) I & B
- (b) IETF
- (c) Inter NIC
- (d) None of these
- (e) None of the above

Q40. Internet was started in India at?

- (a) 15 August, 1995
- (b) 9 August, 1995
- (c) 8 August, 1994
- (d) 7 August, 1996
- (e) None of the above

Solutions

S1. Ans.(a)

Sol. Mainframes are a type of computer that generally are known for their large size, amount of storage, processing power and high level of reliability. They are primarily used by large organizations for mission-critical applications requiring high volumes of data processing.

S2. Ans.(b)

Sol. Zip is a Compressed File.

S3. Ans.(a)

Sol. The MICR (Magnetic Ink Character Recognition) is a device that can recognize human readable characters printed on documents such as cheques using a special magnetic ink.

S4. Ans.(d)

Sol. A cell is the intersection between a row and a column on a spreadsheet that starts with cell A1.

S5. Ans.(d)

Sol. A protocol or communication protocol is a set of rules in which computers communicate with each other.

S6. Ans.(a)

Sol. Star topology is a network topology where each individual piece of a network is attached to a central node (often called a hub or switch).

S7. Ans.(b)

Sol. key logging is a type of surveillance software that once installed on a system, has the capability to record every keystroke made on that system.

S8. Ans.(a)

Sol. To place your image into a live video conference, a Webcam is usually used.

S9. Ans.(d)

Sol. General Purpose computers can perform all those tasks.

S10. Ans.(a)

Sol. In Word, you can automate frequently used tasks by creating and running macros. First, you record the macro.

S11Ans.(c)

Sol. IP address is short for Internet Protocol (IP) address. An IP address is an identifier for a computer or device on a network.

S12. Ans.(d)

Sol. The Internet allows you to send electronic mail, view web pages and connect to servers all around the world.

S13. Ans.(c)

Sol. The Hypertext Transfer Protocol (HTTP) is an application protocol for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web.

S14. Ans.(c)

Sol. Paint, PowerPoint and Word are application software. Microsoft Edge is the new browser built for Windows 10. Edge is faster, safer and gives you longer battery life.

S15. Ans.(d)

Sol. A protocol identifier, www and the unique registered domain name are requisite for a URL

S16. Ans.(c)

Sol. you can organize your bookmark into folders by topic or task etc.

S17. Ans.(a)

Sol. NCSA Mosaic, or simply Mosaic, is a discontinued early web browser. It has been credited with popularizing the World Wide Web. It was the first graphical web browser.

S18. Ans.(c)

Sol. Generally to copy data from a remote compute/internet to a local computer is called downloading.

S19. Ans.(b)

Sol. Ctrl + W can be used to close a tab in a web browser.

S20. Ans.(a)

Sol. A hyperlink, or simply a link, is a reference to data that the reader can directly follow either by clicking, tapping, or hovering. Hyperlinks are found in nearly all Web pages, allowing users to click their way from page to page.

S21. Ans.(a)

Sol. The Graphics Interchange Format (GIF) is used to save simple Web graphics having limited colors. This image format is usually used for Web buttons, charts and text headings.

S22. Ans.(a)

Sol. The touch command is used to create a file. It can be anything, from an empty txt file to an empty zip file.

S23. Ans.(a)

Sol. Optical Mark Recognition What is the technology used to read pencil or pen marks on a multiple-choice answer sheet.

S24. Ans.(c)

Sol. Ctrl + Alt + Del is used to restart computer. printers.

S25. Ans.(a)

Sol. Saving is the process to copy document from memory to storage.

S26. Ans.(d)

Sol. The shortcut key to search for a file or folder is F3.

S27. Ans.(c)

Sol. Voice or speech recognition is the ability of a machine or program to receive and interpret dictation, or to understand and carry out spoken commands.

S28. Ans.(c)

Sol. In an EBCDIC file, each alphabetic or numeric character is represented with an 8-bit binary number (a string of eight 0's or 1's). 256 possible characters (letters of the alphabet, numerals, and special characters) are defined.

S29. Ans.(c)

Sol. 1 MB= 1 million bytes.



S30. Ans.(d)

Sol. HTML document is created by using a basic text editor such as Notepad on Windows, TextEdit on MacOS, gedit on Ubuntu Linux. However, you should choose an editor that allows you to save a page in the UTF-8 encoding.

S31. Ans.(a)

Sol. Browser helps to connect a computer from internet.

S32. Ans.(d)

Sol. Internet Control Message Protocol (ICMP) is used to send control messages to network devices and hosts. Routers and other network devices monitor the operation of the network. When an error occurs, these devices can send a message using ICMP.

S33. Ans.(a)

Sol. For document exchange on network Floppy is not necessary.

S34. Ans.(a)

Sol. A code of webpage has been written by using Hyper text markup language.

S35. Ans.(b)

Sol. When pointer points Hyperlink then pointer appears like a hand.

S36. Ans.(a)

Sol. The first political party of India which created its own web-site on internet is Bhartiya Janata Party.

S37. Ans.(a)

Sol. Sikkim state of India first available the telephone directory on internet.

S38. Ans.(c)

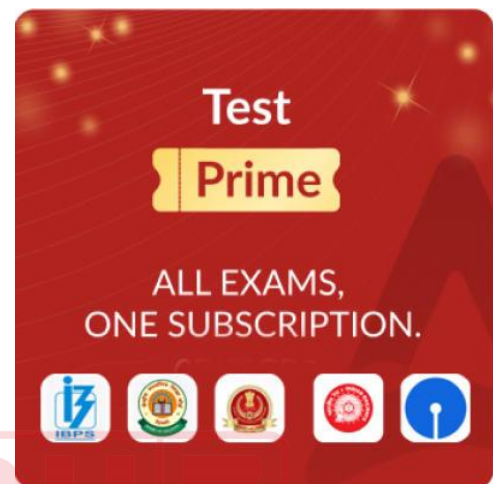
Sol. Space () cannot be part of an email address.

S39. Ans.(d)

Sol. No one person, company, organization or government runs the Internet. It is a globally distributed network comprising many voluntarily interconnected autonomous networks. It operates without a central governing body with each constituent network setting and enforcing its own policies.

S40. Ans.(a)

Sol. Internet got introduced in India in 1986 but it took a decade to make it available for the public. VSNL first launched the internet in India on August 15, 1995.



Memory Based Questions IBPS RRB PO & Clerk 2020

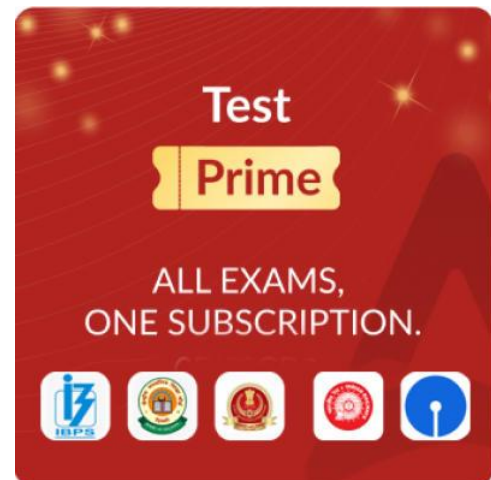
1. Word processing, spreadsheet, and photo-editing are examples of which type of software?
(a) Application software
(b) System software
(c) Operating system software
(d) Platform software
(e) None of these
2. Which are specially designed computer chips that reside inside other devices, such as your car or your electronic thermostat?
(a) Servers
(b) Embedded computers
(c) Robotic computers
(d) Mainframes
(e) None of these
3. If you wished to limit what you would see on an Excel worksheet, what data function would you use?
(a) Sort
(b) Filter
(c) Conditional format
(d) Data analysis
(e) None of these
4. Which of the following number system has base-16?
(a) Unary number system
(b) Binary number system
(c) Octal number system
(d) Hexadecimal Number System
(e) None of the above
5. What is the full form of SMPS?
(a) Secure Make Potential Supply
(b) Standard Made Power Supply
(c) Switched-Mode Power Supply
(d) Simplex Mode Power Supply
(e) None of these
6. Which of the following Program are often delivered to a PC through an email attachment and are often designed to do harm?
(a) Spam
(b) Portals
(c) Viruses
(d) Ransomware
(e) None of these
7. Which type of memory holds only that program and data that CPU is presently processing?
(a) ASCII
(b) CMOS
(c) RAM
(d) ROM
(e) None of these
8. Softcopy is the intangible output, so then what is hardcopy?
(a) The physical parts of the computer
(b) The printed parts of the computer
(c) The printed output
(d) The physical output devices
(e) None of the above
9. One nibble is equal to how many bits?
(a) 4
(b) 8
(c) 2
(d) 16
(e) None of these
10. What is a Firewall in Computer Network?
(a) The physical boundary of Network
(b) An operating System of Computer Network
(c) A system designed to prevent unauthorized access
(d) A web browsing Software
(e) None of these
11. What is the main function of the ALU?
(a) Store data and information for future use
(b) Monitor all computer activities
(c) Perform arithmetic and logical operations
(d) Control computer output, such as printing
(e) None of the above
12. Which one of the following is internet Standard Protocol?
(a) TML
(b) COBOL
(c) JAVA
(d) C++
(e) TCP/IP
13. Bridge work at which layer of OSI Model?
(a) Network layer
(b) Data link layer
(c) Physical layer
(d) Application layer
(e) Transport layer
14. A _____ is used to direct and dispatch data packets between different networks.
(a) Connection
(b) Bridge
(c) Gateway
(d) Hub
(e) Router
15. Who is the creator of PASCAL language?
(a) Dennis Ritchie
(b) Brendan Eich
(c) James Gosling
(d) Niklaus Wirth
(e) None of these

16. Which of the following is the shortcut key for hides the selected rows?
(a) Ctrl+D
(b) Ctrl+H
(c) Ctrl+9
(d) Ctrl+10
(e) None of these
17. What does the .org domain represents?
(a) Organization domain
(b) Network domain
(c) Government domain
(d) Education domain
(e) None of these
18. Which of the following is a Web browser?
(a) Paint
(b) PowerPoint
(c) Edge
(d) Word
(e) All are Web browsers
19. Which of the following is used in Second-generation of computers?
(a) Vacuum tube based
(b) Integrated circuit based
(c) VLSI
(d) Transistor
(e) None of these
20. Integrated Circuit (IC) chips used in computers are made with _____.
(a) Silicon
(b) Copper
(c) Aluminium
(d) Gold
(e) None of these
21. If you wished to limit what you would see on an Excel worksheet, what data function would you use?
(a) Data analysis
(b) Sort
(c) Filter
(d) Conditional format
(e) None of these
22. Which of the memories has the shortest access time?
(a) Cache memory
(b) Magnetic bubble memory
(c) Magnetic core memory
(d) RAM
(e) None of these
23. While browsing the internet, which of the following key is used for full screen view?
(a) F3
(b) F5
(c) F11
(d) F9
(e) F1
24. What is the base of hexadecimal number system?
(a) 2
(b) 8
(c) 16
(d) 10
(e) None of these
25. What is the full form of SIM?
(a) Subscriber Idol Mechanism
(b) Semi Idol Module
(c) Substitute Identity Module
(d) Subscriber Identity Module
(e) None of these
26. Harmful programs used to disrupt computer operation, gather sensitive information, or gain access to private computer systems are commonly referred to as:
(a) Adware
(b) Malware
(c) Computer viruses
(d) Spyware
(e) None of these
27. A repair for a known software bug, usually available at no charge on the internet, is called a(n) _____.
(a) Version
(b) Patch
(c) Tutorial
(d) FAQ
(e) None of these
27. A _____ typically connects personal computers within a very limited geographical area, usually within a single building.
(a) LAN
(b) FAN
(c) TAN
(d) WAN
(e) VPN
28. Which of the following memories not needs refresh?
(a) SRAM
(b) DRAM
(c) ROM
(d) All of above
(e) None of these



IBPS RRB Computer Capsule 2025 (PO and Clerk)

29. What database key uniquely identifies a record within a table?
(a) Primary key
(b) Foreign key
(c) Secondary key
(d) Relational key
(e) None of these
30. A _____ is a built in mathematical formula included in excel.
(a) Function
(b) Cell
(c) Formula
(d) Range
(e) None of these
31. Which of the following Excel features allows you to select/highlight all cells that are formulas?
(a) Find
(b) Replace
(c) Go To
(d) Go To Special
(e) None of these
32. What is the maximum Zoom Percent allowed in Microsoft PowerPoint 2007?
(a) 100%
(b) 200%
(c) 300%
(d) 400%
(e) None of these
33. In MS Word 2010 the feature for Word Count is available in Proofing under which of the following tab?
(a) Home
(b) Review
(c) Insert
(d) View
(e) References
34. A computer cannot 'boot' if it does not have the _____.
(a) Compiler
(b) Loader
(c) Operating system
(d) Assembler
(e) None of these
35. ISDN stands for _____.
(a) Integrated Services Digital Network
(b) Integrated Services Data Network
(c) Integrated Security Digital Network
(d) Integrated Security Data Network
(e) None of these
36. What type of resource is most likely to be a shared common resource in a computer network?
(a) Keyboards
(b) Speakers
(c) Floppy disk drives
(d) Printers
(e) None of these
37. The most widely used type of database management system is the:
(a) Flat database
(b) Network database
(c) Relational database
(d) Hierarchical database
(e) None of the above
38. Managers use sophisticated tool to combat cyberslacking, especially involving the internet. Such tools include ____
(a) Web filters
(b) Surveillance Software
(c) Proxy Server
(d) Packet sniffer
(e) All of the above
39. The altering of data so that it is not usable unless the changes are undone is _____.
(a) Biometrics
(b) Compression
(c) Encryption
(d) Ergonomics
(e) Spamming
40. Which of the following is used for closing a tab on a browser?
(a) Ctrl + T
(b) Ctrl + W
(c) Ctrl + A
(d) Ctrl + Y
(e) Alt + F4



Solutions

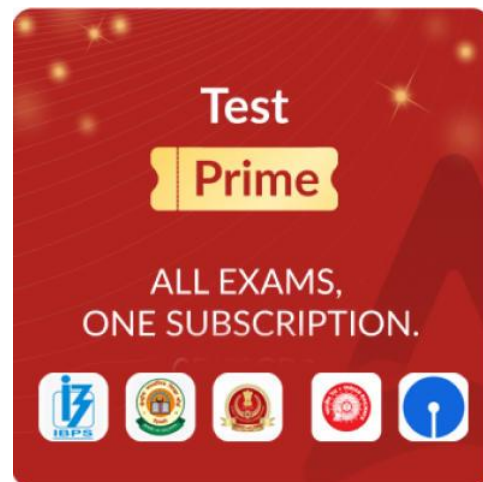
1. **(a);** Application software is a term which is used for software created for a specific purpose. It is generally a program or collection of programs used by end users.
2. **(b);** An embedded system is some combination of computer hardware and software, either fixed in capability or programmable, that is designed for a specific function or for specific functions within a larger system.
3. **(b);** Filter is used in your Excel data, if you only want to display records that meet certain criteria.
4. **(d);** Hexadecimal number system has base 16, Octal- Base 8, Binary- Base 2 and Decimal- Base 10
5. **(c);** SMPS stands for Switched-Mode Power Supply. It is an electronic power supply that uses a switching regulator to convert electrical power efficiently. It is also known as Switching Mode Power Supply. It is power supply unit (PSU) generally used in computers to convert the voltage into the computer acceptable range.
6. **(c);** Computer virus are often delivered to a PC through an email attachment and are often designed to do harm. A computer virus is a malicious program that normally self-replicates by copying itself to another computer program. In basic terms, a computer virus spreads itself through executable code or documents.
7. **(c);** RAM is volatile memory used to hold instructions and data of currently running programs. It loses integrity after loss of power. RAM memory modules are installed into slots on the computer motherboard.
8. **(c);** A hardcopy is a printed copy of information from a computer.
9. **(a);** One nibble is equal to 4 bits.
10. **(c);** Firewall in Computer Network is a system designed to prevent unauthorized access.
11. **(c);** ALU is an arithmetic-logic unit is the part of a central processing unit that carries out arithmetic and logic operations on the operands in computer instruction words.
12. **(e);** TCP/IP, which stands for Transmission control Protocol/Internet Protocol, is an industry-standard protocol suite for WANs. On the other hand, HTML, COBOL, JAVA and C++ are computer programming languages.
13. **(b);** Bridges operate at the Data-Link Layer of the OSI Model. They can distinguish between local and remote data, so data traveling from one workstation to another in the same segment doesn't have to cross the bridge. Bridges operate on MAC-Layer addresses.
14. **(e);** A router is used to route data packets between different networks. It reads the information in each packet to tell where it is going. If it is destined for an immediate network it has access to, it will strip the outer packet (IP packet for example), readdress the packet to the proper Ethernet address, and transmit it on that network.
15. **(d);** Pascal is an imperative and procedural programming language developed by Niklaus Wirth.
16. **(c);**
17. **(a);** The .org top-level domain stands for "organization" and is primarily used for nonprofit websites such as charities, NGOs, open source projects.
18. **(c);** Paint, PowerPoint and Word are application software. Microsoft Edge is the new browser built for Windows 10. Edge is faster, safer and gives you longer battery life.
19. **(d);**
20. **(a);**
21. **(c);**
22. **(a);** Cache memory is a small-sized type of volatile computer memory that provides high-speed data access to a processor and stores frequently used computer programs, applications and data. Cache is the fastest memory in a computer.
23. **(c);**
24. **(c);**
25. **(d);**

26. **(b);**
27. **(b);** A patch is a piece of software designed to update a computer program or its supporting data to fix or improve it.
27. **(a);** A local-area network (LAN) is a computer network that spans a relatively small area. Most often, a LAN is confined to a single room, building or group of buildings.
28. **(a);** Static Random Access Memory (Static RAM or SRAM) is a type of RAM that holds data in a static form, that is, as long as the memory has power. Unlike dynamic RAM, it does not need to be refreshed.
29. **(a);** Primary key is used to uniquely identify a record within a table.
30. **(a);**
31. **(d);**
32. **(d);**
33. **(b);** Word Count is available in Proofing under Review tab.
34. **(c);** An Operating System (OS) is an interface between a computer user and computer hardware. An operating system is a software which performs all the basic tasks like file management, memory management, process management, handling input and output, and controlling peripheral devices such as disk drives and printers.
35. **(a);** ISDN stands for Integrated Services Digital Network.
36. **(d);** Printer is a shared common resource in a computer network.
37. **(c);** A relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model as invented by E. F. Codd. Relational databases have often replaced legacy hierarchical databases and network databases because they are easier to understand and use.
38. **(e);** Cyberslacking refers to an employee's use of work computers and other resources during work hours for non-work-related purposes. When an employee is cyberslacking, they will be using the employer's devices, internet connection, or other resources for personal affairs and even entertainment.
39. **(c);** Encryption is the most effective way to achieve data security. To read an encrypted file, you must have access to a secret key or password that enables you to decrypt it. Unencrypted data is called plain text; encrypted data is referred to as cipher text.
40. **(b);** Ctrl+ W closes a tab on a browser and Alt + F4 closes the whole application program.



Memory Based Questions IBPS RRB PO/Clerk 2019

1. Which of the following operating system developed by Apple?
 (a) Windows 10
 (b) Android
 (c) Windows Vista
 (d) macOS
 (e) None of these
2. What is the full form of DBMS?
 (a) Database Maintain System
 (b) Desktop Marketing System
 (c) Database Management System
 (d) Durable Management System
 (e) None of these
3. What is the base of Octal Number system?
 (a) 8
 (b) 16
 (c) 10
 (d) 2
 (e) None of these
4. Which of the following is used in first generation computer?
 (a) Integrated Circuit
 (b) Vacuum Tube
 (c) Transistor
 (d) VLSI circuits
 (e) None of these
5. PROM Stands for_____.
 (a) Programmable random-on memory
 (b) Picture random memory
 (c) Process read-only memory
 (d) Programmable read-only memory
 (e) None of these
6. COBOL is used for which of the following purpose?
 (a) Scientific calculation
 (b) Business and Finance
 (c) Application development
 (d) Network Security
 (e) None of these
7. Which key is used to delete characters to the left of the cursor?
 (a) Tab
 (b) Page Down
 (c) Delete
 (d) Backspace
 (e) None of these
8. How many MB is equal to 1 GB?
 (a) 10MB
 (b) 100000MB
 (c) 20000 MB
 (d) 1024 MB
 (e) None of these
9. Convert Binary number $(111001)_2$ to decimal number_____.
 (a) $(38)_{10}$
 (b) $(57)_{10}$
 (c) $(55)_{10}$
 (d) $(47)_{10}$
 (e) None of these
10. ENIAC belongs to which computer generation?
 (a) Second
 (b) First
 (c) Third
 (d) Fourth
 (e) None of these
11. MS Access is a _____?
 (a) System Software
 (b) Browser
 (c) Database
 (d) Pointing Device
 (e) None of these
12. Which of the following is the most common tool used to restrict access to a computer system?
 (a) User logins
 (b) Computer keys
 (c) Access-control Software
 (d) Passwords
 (e) None of these
13. Photo-editing, spreadsheet and word processing were the examples of?
 (a) Application software.
 (b) System software.
 (c) Operating system software.
 (d) Platform software.
 (e) None of these
14. Which of the following shortcut key is used to close document in MS Word?
 (a) Ctrl+C
 (b) Alt+W
 (c) Shift+C
 (d) Ctrl+W
 (e) None of these



15. What is the base of Hexadecimal number system?
(a) 2
(b) 16
(c) 8
(d) 10
(e) None of these
16. In second generation, which type of memory was used to store data?
(a) Paper tapes
(b) Magnetic drum
(c) Magnetic core
(d) Magnetic tape
(e) None of these
17. Which among the following key can be used as a shortcut to rename a folder in Microsoft Windows 8 and higher versions?
(a) F2
(b) F4
(c) F6
(d) F9
(e) F11
18. In order to move from one worksheet to another in MS-Excel workbook. One should click _____.
(a) active cell
(b) scroll bar
(c) sheet tab
(d) tab button
(e) None of these
19. Which shortcut key is used to check spelling and grammar in MS-Word?
(a) F1
(b) F2
(c) F7
(d) F9
(e) F10
20. Which is not a storage device?
(a) Printer
(b) CD
(c) Hard disk
(d) Floppy Disk
(e) DVD
21. An image editing software in which we can draw and edit images is?
(a) PageMaker
(b) MS-Paint
(c) Coral Draw
(d) Photo Image
(e) Front page
22. Which of the following can be used to select the entire document?
(a) Ctrl+A
(b) Alt+F5
(c) Shift+A
(d) Ctrl+K
(e) Ctrl+H
23. Which of the following shortcut key is used to minimize all open windows and display the desktop?
(a) Windows logo+D
(b) Alt+Shift+C
(c) Ctrl+fn
(d) Tab+Shift+C
(e) None of these
24. Which of the following kind of devices allows the user to add components and capabilities to a computer system?
(a) System boards
(b) Storage devices
(c) Input devices
(d) Output devices
(e) Expansion slots
25. Transformation of input into output is performed by:
(a) Peripherals
(b) Memory
(c) Storage
(d) ALU
(e) CPU
26. Which of the following device enabling data transfer between two different networks?
(a) Plotter
(b) Joystick
(c) Gateway
(d) Path
(e) None of these
27. Among the following which is the popular DOS based spreadsheet package?
(a) Multiplan
(b) Word
(c) Smart cell
(d) Lotus 1-2-3
(e) Excel
28. Which of the following is a windows utility program that locates and eliminates unnecessary fragments and rearranges filed and unused disk space to optimize operations?
(a) Backup
(b) Disk cleanup
(c) Disk defragmenter
(d) Restore
(e) None of these
29. Which among the following key combination can be used to search in Windows Explorer?
(a) Ctrl+F
(b) Ctrl+S
(c) Ctrl+G
(d) Alt+S
(e) Alt+P
30. What is the technology used to read pencil or pen marks on a multiple-choice answer sheet called?
(a) OMR
(b) MICR
(c) OCR
(d) CPU
(e) FTP

IBPS RRB Computer Capsule 2025 (PO and Clerk)

31. Which among the following is a type of error that a compiler can check?
(a) Syntax Error
(b) Power Failure
(c) Network Failure
(d) All of the above
(e) None of the above
32. A special, high-speed storage area within the CPU in which all data must be represented before it can be processed is called _____.
(a) BIOS
(b) Cache
(c) RAM
(d) Register
(e) None of these
33. In Power Point, the Header & Footer button can be found on the Insert tab in what group?
(a) Illustrations group
(b) Object group
(c) Text group
(d) Tables group
(e) None of these
34. Which of the following is generally used for selecting or highlighting?
(a) Icon
(b) Keyboard
(c) Mouse
(d) Floppy Disk
(e) None of these
35. _____ ensures secure transfer of data over an unsecured network, such as the Internet.
(a) Antivirus
(b) Hacking
(c) Cracking
(d) Spoofing
(e) Cryptography
36. The ability of an operating system to run more than one application at a time is called _____.
(a) Multi-tasking
(b) Object-oriented programming
(c) Multi-user computing
(d) Real-Time
(e) None of the above
37. The process of checking all the peripheral units by the OS during the time of booting is known as _____.
(a) BIOS
(b) POST
(c) BUS
(d) Chkdsk
(e) None of these
38. A handheld device that allows you to control your computer without typing instructions from a keyboard is known as _____.
(a) Tablet
(b) PDA
(c) Mouse
(d) Mike
(e) None of these
39. The feature in database language that allows us to access certain records in database is called _____.
(a) Query
(b) Forms
(c) Reports
(d) Tables
(e) Node
40. When you save a Microsoft Access project, what file format do you use?
(a) .adp
(b) .Xml
(c) .mbd
(d) All of the above
(e) None of the above

Solutions

1. (d);
2. (c); A database management system (DBMS) is system software for creating and managing databases. A DBMS makes it possible for end users to create, read, update and delete data in a database.
3. (a);
4. (b);
5. (d); PROM or programmable ROM (programmable read-only memory) is a computer memory chip that can be programmed once after it is created. Once the PROM is programmed, the information written is permanent and cannot be erased or deleted.
6. (b); COBOL (Common Business-Oriented Language) is a high-level programming language for business applications. COBOL was designed for business computer programs in industries such as finance and human resources.
7. (d);
8. (d);
9. (b); $(111001)_2 = 1 \cdot 2^5 + 1 \cdot 2^4 + 1 \cdot 2^3 + 0 \cdot 2^2 + 0 \cdot 2^1 + 1 \cdot 2^0 = (57)_{10}$
10. (b);
11. (c);
12. (d);
13. (a);
14. (d);
15. (b);
16. (c); In second generation, magnetic cores were used as

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primary memory and magnetic tape and magnetic disks as secondary storage devices.

- 17. (a);
- 18. (c);
- 19. (c);
- 20. (a);
- 21. (c);
- 22. (a);
- 23. (a);
- 24. (e); Expansion slots allows user to add devices.
- 25. (e); the CPU is the Central Processing Unit of the computer. A computer's CPU handles all instructions it receives from hardware and software running on the computer.
- 26. (c); A gateway is a network node that connects two networks using different protocols together.
- 27. (d); Lotus 1-2-3, developed by Lotus Development Corporation, is the most popular spreadsheet package among DOS users.
- 28. (c); Disk Defragmenter is a utility in Microsoft Windows designed to increase access speed by rearranging files stored on a disk to occupy contiguous storage locations, a technique called defragmentation.
- 29. (a); Ctrl+F is the short cut key combination that can be used to search in Windows Explorer.
- 30. (a); Optical Mark Recognition What is the technology used to read pencil or pen marks on a multiple-choice answer sheet.
- 31. (a); Syntax Errors - These are invalid code which the compiler doesn't understand. The compiler will detect them as it can't compile them.
- 32. (d); Register is a special high-speed storage area within the CPU where all data must be represented before it can be processed.

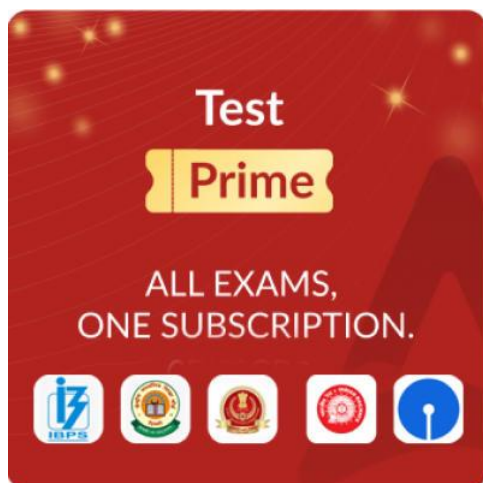
- 33. (c);
- 34. (c); Generally, we can use mouse for selecting or highlighting object.
- 35. (e); In cryptography, data are sent in such a way that they look completely different from the original data. Thus, cryptography ensures secure transfer of data over an unsecured network.
- 36. (a); The ability of an operating system to run more than one application at a time is called Multi-tasking.
- 37. (b); POST (Power on Self-Test) is a test the computer must complete to verify all hardware is working properly before starting the remainder of the boot process.
- 38. (c); A mouse is a handheld device that allows you to control your computer without typing the instructions from the keyboard. By using a mouse, you can select icons, open programs, and select, commands, present in a program by moving the pointer.
- 39. (a); Query allows us to access certain records in database.
- 40. (a); An Access project is an Access file (.adp) that provides a direct, efficient connection to a Microsoft SQL Server database through the OLE DB component architecture.



Memory Based Questions IBPS RRB PO/Clerk 2018

1. Which of the following topologies has the highest reliability?
 (a) Star topology
 (b) Bus topology
 (c) Ring topology
 (d) Mesh topology
 (e) None of these
2. Which among the following term is used for: Unauthorized copying of software to be used for personal gain instead of personal backups?
 (a) program thievery
 (b) data snatching
 (c) software piracy
 (d) program looting
 (e) data looting
3. EDBIC code can support how many different representation of characters?
 (a) 256
 (b) 149
 (c) 1024
 (d) 64
 (e) 16
4. The main webpage of a website is also known as -
 (a) Contents Page
 (b) Home Page
 (c) Introduction Page
 (d) First Page
 (e) Icebreaker Page
5. What is a hyperlink?
 (a) It is a text or image that you can click on to jump to a new document/page.
 (b) It is an input type for multimedia files.
 (c) It is a collection or directory of web pages.
 (d) It is the home page of a site.
 (e) None of the above
6. What is a technique used to gain unauthorized access to computers, whereby the intruder sends messages to a computer with an address indicating that the message is coming from a trusted host?
 (a) Identity Theft
 (b) Forging
 (c) IP Spoofing
 (d) Pharming
 (e) Phishing
7. Portrait and Landscape are:
 (a) Page Orientation
 (b) page layout
 (c) page size
 (d) page view
 (e) none of the above
8. Internet access by transmitting digital data over the wires of a local telephone network is provided by:
 (a) leased line
 (b) digital subscriber line
 (c) digital signal line
 (d) MODEM
 (e) None of the above
9. Which of the following network devices is also called a concentrator?
 (a) Switch
 (b) Router
 (c) Brouter
 (d) Repeater
 (e) Hub
10. What type of web technology creates an online community where people can make statements and others can read and respond to those statements?
 (a) I-Journal
 (b) Podcast
 (c) ASP
 (d) Blog
 (e) None of the above
11. What is the full form of EDI in computer?
 (a) Electronic Data Image
 (b) E-mail Data Interchange
 (c) Electronic Data Interchange
 (d) Electronic digital Interchange
 (e) None of these
12. What is the use of "," symbol in Ms EXCEL?
 (a) allows you to make one reference for multiple cells located between 2 cells
 (b) is used to separate arguments in Excel spreadsheet formulas.
 (c) it is an intersection operator
 (d) For Sum of two cells
 (e) None of these
13. Which of the following shortcut key use to close the current window?
 (a) Alt+F7
 (b) Shift+F4
 (c) CRLT+F6
 (d) Alt+F4
 (e) None of these
14. What are programs such as Microsoft Edge that serve as navigable windows into the Web called as?
 (a) Hypertext
 (b) Web browsers
 (c) Internet
 (d) Networks
 (e) Windows Navigator
15. Which among the following is a self-contained step-by-step set of operations to be performed?
 (a) System Software
 (b) Algorithm
 (c) Network topology
 (d) Application software
 (e) Utility software
16. which of the following is an intersection of a row and column in a spreadsheet?
 (a) Formula
 (b) Worksheet
 (c) Address
 (d) Cell
 (e) None of these

17. which of the following is a set of rules computers use to talk to each other?
(a) Syntax
(b) HTML
(c) DOS command
(d) Protocol
(e) None of these
18. Which of the following topology have a central controller or hub?
(a) Star
(b) Mesh
(c) Ring
(d) Bus
(e) None of these
19. Which shortcut key is used to create a new folder in MS Windows?
(a) Right Click Button+W+Enter
(b) Ctrl+W+Shift
(c) Right Click Button+F+Enter
(d) Right Click Button+Q+Enter
(e) Ctrl+Shift+N
20. The first computers were programmed using which of the following language?
(a) Assembly language
(b) Machine language
(c) Source code
(d) Object code
(e) None of the above
21. Which of the following is not example of Utility Software?
(a) Backup software
(b) Antivirus software
(c) Disk tools
(d) Media Players
(e) All of the above are examples of Utility Software
22. Copying a process from memory to disk to allow space for other processes is called _____.
(a) Swapping
(b) Deadlock
(c) Demand Paging
(d) Page Fault
(e) Cloud Computing
23. Which of the following is a translator program used for assembly language?
(a) Compiler
(b) Interpreter
(c) Translation
(d) Translator
(e) Assembler
24. What is the technical term for the devices connected in a network?
(a) Hubs
(b) Nodes
(c) Sections
(d) Attachment units
(e) Access points
25. Which of the following is the communication protocol that sets the standard used by almost every computer that accesses web based information?
(a) XML
(b) DML
(c) HTTP
(d) HTML
(e) RIP
26. What is the attempt to acquire sensitive information such as usernames, passwords, and credit card details (and sometimes, indirectly, money) by masquerading as a trustworthy entity in an electronic communication?
(a) Phishing
(b) Spoofing
(c) Identity theft
(d) Authentication
(e) Spamming
27. Communication channel is shared by all the machines on the network in:
(a) broadcast network
(b) unicast network
(c) multicast network
(d) Internet Protocol Address
(e) none of the above
28. A(n) _____ converts all the source code into machine code, creating an executable file.
(a) linker
(b) assembler
(c) compiler
(d) interpreter
(e) None of these
29. What is the term that refers to an ad hidden inside software that you downloaded from an internet site?
(a) Spam
(b) Cookie
(c) Phish
(d) Adware
(e) None of these
30. In PowerPoint, what is the function of Alt+N in navigating the ribbon with only the keyboard?
(a) Open the Transitions tab
(b) Open the Home tab
(c) Open the Insert tab
(d) Open the Review tab
(e) Open the Tell me box



31. Commands at the top of a screen such as File-Edit, Format and Tools to operate and change things are incorporated in _____.
(a) Menu bar
(b) Tool bar
(c) User friendly
(d) Word processor
(e) None of these
32. Specialised program(s) designed to allow particular input or output device(s) to communication with the rest of the computer system is called _____.
(a) Computer
(b) Device drivers
(c) Interpreters
(d) Operating system
(e) None of these
33. UDP and TCP are categorized under the ___layer of the OSI model.
(a) Data link
(b) Application
(c) Network
(d) Transport
(e) Session
34. Twisted pair wires are commonly used in?
(a) Telephones networks
(b) Cable TV Networks
(c) Computer networks
(d) Both (a) and (b)
(e) None of the above
35. Timing and control unit is a part of a(n) _____.
(a) ALU
(b) Processor
(c) Memory
(d) CMOS
(e) BIOS
36. A specialized network device that determines the next network point to which it can forward a data packet towards the destination of the packet is commonly known as _____.
(a) bridge
(b) router
(c) switch
(d) hub
(e) repeater
37. A database that spreads information across different tables while maintaining links between them is referred to as _____.
(a) Relational database
(b) Rotational database
(c) Database connection
(d) Tabular database
(e) None of these
38. What does SNMP stand for?
(a) Simple Network Mail Protocol
(b) Single Network Mail Protocol
(c) Single Network Message Protocol
(d) Simple Network Management Protocol
(e) None of these
39. What is the common name given to a program written in any one of the high-level languages?
(a) System program
(b) Compiler program
(c) Object program
(d) Source program
(e) Data program
40. For predicting the weather which of the following is the best solution?
(a) thin clients
(b) servers
(c) supercomputer
(d) workstations
(e) mini computer



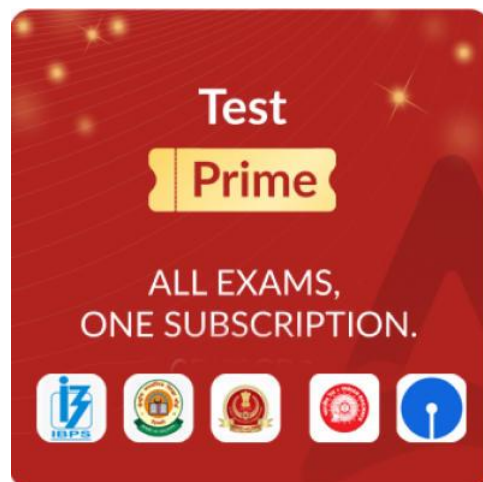
Solutions

1. (d); In the mesh topology, each computer is connected to the other with a separate physical link in a network. It is most reliable topology as the network does not get down in case one of the nodes is failed.
2. (c); Software piracy is the illegal copying, distribution, or use of software.
3. (a); EBCDIC stands for Extended Binary Coded Decimal Interchange Code. EBCDIC is a 8-Bit code with 256 different representations of characters. It is mainly used in mainframe computers.
4. (b); A home page is the main page or the introductory page of a website, typically serving as a table of contents for the site.
5. (a); A hyperlink, or simply a link, is a reference to data that the reader can directly follow either by clicking, tapping, or hovering. Hyperlinks are found in nearly all Web pages, allowing users to click their way from page to page.
6. (c); Spoofing: It is a type of scam where an intruder attempts to gain unauthorized access to a user's system or information by pretending to be the user.

The main purpose is to trick the user into releasing sensitive information.

7. (a); Page orientation is the way in which a rectangular page is oriented for normal viewing.
8. (b); Digital subscriber line (DSL or digital subscriber loop) is a family of technologies that are used to transmit digital data over telephone lines.
9. (e); A hub contains several ports for connecting multiple computers to form a small network. A simple hub is also called a concentrator.
10. (d); A blog is a regularly updated website or web page, typically one run by an individual or small group, that is written in an informal or conversational style.
11. (c); EDI (Electronic Data Interchange) is the transfer of data from one computer system to another by standardized message formatting, without the need for human intervention. EDI permits multiple companies -- possibly in different countries -- to exchange documents electronically.
12. (b);
13. (d);
14. (b);
15. (b);
16. (d); A cell is the intersection between a row and a column on a spreadsheet that starts with cell A1.
17. (d); A protocol or communication protocol is a set of rules in which computers communicate with each other.
18. (a); Star topology is a network topology where each individual piece of a network is attached to a central node (often called a hub or switch).
19. (e); Ctrl+Shift+N is also the shortcut key to open new incognito mode in chrome web browser.
20. (b); First computers were programmed using machine language.
21. (d); Utility software is system software designed to help analyze, configure, optimize or maintain a computer.
22. (a); Swapping concept comes in terms of process scheduling. Scheduler removes process from CPU for duration and reduces the degree of multiprogramming. And after some time these process can again be reintroduced into main memory.
23. (e); Assembler translates a program written in an assembly language into machine language.
24. (b); In a computer network, the devices are called nodes.
25. (c); The Hypertext Transfer Protocol (HTTP) is an application protocol for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web.
26. (a); Phishing is typically carried out by e-mail spoofing or instant messaging, and it often directs users to enter details at a fake website whose look and feel are almost identical to the legitimate one.
27. (a); Broadcast networks: It has a single communication channel that is shared by all the machines on the network. Short messages, called packets in certain contexts, sent by any machine are received by all the others.

28. (c); A compiler converts all the source code into machine code, creating an executable file.
29. (d); Adware is software that automatically displays or downloads advertising material such as banners or pop-ups when a user is online.
30. (c)
31. (a); Those commands, options are available in menu bar.
32. (b); A device driver is a program that controls a particular type of device that is attached to your computer. There are device drivers for printers, displays, CD-ROM readers, diskette drives, and so on. When you buy an operating system, many device drivers are built into the product
33. (d); The transport layer is a conceptual division of methods in the layered architecture of protocols in the network stack in the Internet Protocol Suite and the Open Systems Interconnection (OSI). The protocols of the layer provide host-to-host communication services for applications
34. (a); Twisted pair wires are used in telephone networks and for digital data transmission over short distances up to 1 km.
35. (b); Timing and control unit is a part of processor.
36. (b); A router is a networking device that forwards data packets between computer networks. Routers perform the traffic directing functions on the Internet.
37. (a); A relational database is a collective set of multiple data sets organized by tables, records and columns. It establishes a well-defined relationship between database tables.
38. (d); Simple Network Management Protocol (SNMP) is a popular protocol for network management. It is used for collecting information from, and configuring, network devices, such as servers, printers, hubs, switches, and routers on an Internet Protocol (IP) network.
39. (d); Source program is written in high level language.
40. (c); Supercomputer is used for predicting the weather.



MEMORY BASED QUESTIONS IBPS RRB PO AND CLERK 2017

Q1. There is a small-sized type of volatile computer memory that provides high-speed data access to a processor and stores frequently used computer programs, applications and data. Which among the following is a type of memory used to hold frequently used data?

- (a) Microprocessor (b) **Cache** (c) ROM
(d) ALU (e) Control

Q2. ____ memory in a computer is where information is temporarily stored while it is being accessed or worked on by the processor.

- (a) Logical (b) Secondary (c) ROM
(d) **RAM** (e) Crude

Q3. Which among the following is a small set of data holding place that is a part of the computer processor and may hold an instruction, a storage address, or any kind of data?

- (a) **Register** (b) WAN (c) Bus
(d) Address (e) Processor

Q4. An optical input device that interprets pencil marks on paper media is ____.

- (a) **OMR** (b) punch card reader
(c) optical scanners (d) magnetic tape (e) Stylus

Q5. Which among the following is related to the internet and e-mail?

- (a) Boot-Up (b) Magnetic Tapes
(c) Application Software (d) Paging (e) **Virus**

Q6. Shift, Control, Alt are examples of which among the following category?

- (a) **Modifier Keys** (b) Primary Keys
(c) Function Keys (d) Alternate Keys
(e) Candidate Keys

Q7. In a keyboard, left-right-up-down set of keys facilitates which among the following function?

- (a) Deleting Data or Modification
(b) **Page Scrolling to view a Document**
(c) Launching Start Menu
(d) Initiating Search and Help
(e) Controlling RAM or process execution

Q8. Which among the following term means/refers to web address of a page?

- (a) SMTP (b) IP (c) HTTP
(d) **URL** (e) MAC

Q9. Which of the following is always a part of an E-mail address?

- (a) Period (-) (b) **Atsign (@)** (c) Space ()
(d) Underscore () (e) Angular Bracket (<)

Q10. Which among the following is a term for the initial or main web page of a website or a browser?

- (a) URL (b) Domain (c) Google
(d) Search Engine (e) **Home Page**

Q11. What does .org stands for?

- (a) Government (b) Commercial Site
(c) **Organization** (d) Orientation (e) Website

Q12. Help menu is available at which button?

- (a) End (b) **Start** (c) Turn Off
(d) Restart (e) Reboot

Q13. Which among the following is area of an email that is a short description of the message?

- (a) **Subject** (b) CC (c) BCC

(d) Attachment (e) Spam

Q14. Which among the following is the smallest unit in an image in a computer screen?

- (a) Unit (b) **Pixel** (c) Array
(d) Resolution (e) Clip

Q15. Different icons of application software can be found in which bar in latest version of Microsoft Windows?

- (a) **Start Menu** (b) Browser (c) Status
(d) Control Panel (e) Personalize

Q16. Information that comes from external source and fed into computer software is called ____.

- (a) Output (b) **Input** (c) Throughout
(d) Reports (e) Process

Q17. An email attachment is referred to as?

- (a) The body of the email
(b) The address of the sender
(c) A document that is sent with an email
(d) The address of the receiver
(e) **Any document that can be attached and sent with an email**

Q18. What is the default extension of Microsoft Word 2013?

- (a).dcc (b).**docx** (c).xls
(d).ppt (e).ycs

Q19. Which unit is a combinational digital electronic circuit that performs arithmetic and bitwise operations on integer binary numbers?

- (a) BOU (b) AEU (c) CPU
(d) **ALU** (e) UPS

Q20. Which button is called as middle button used as third mouse button by pressing on it.

- (a) right button (b) **scroll wheel**
(c) touch bar (d) light bar (e) left button

Q21. Presentation of a series of still images on a projection screen or electronic display device is called as:

- (a) slide edit (b) slide view (c) **slideshow**
(d) slide movie (e) slide image

Q22. Which memory is used as temporary memory?

- (a) Non-volatile memory
(b) **volatile memory**
(c) hard disk memory
(d) read only memory
(e) flash disc memory

Q23. A software program that add functionality to your computer or help your computer perform better is called as

- (a) **Utility program**
(b) function program
(c) specialized program
(d) manufacturer program
(e) compiling program

Q24. Which unit of computer helps in communication between the memory and the arithmetic logical unit.

- (a) CMU (b) CCU (c) UPS
(d) **CPU** (e) ALU

Q25. Specialized program that allows user to utilize in specific application is classified as

- (a) relative programs
(b) **application program**
(c) appropriate programs

- (d) replicate programs
(e) logical programs
Q26. Which of the following is most commonly used to identify return visitors to a website?
(a) logged-in visitors
(b) digital certificates
(c) electronic time stamping
(d) cookies
(e) None of the above.
Q27. _____ is a type of electronic spam where unsolicited messages are sent by email.
(a) trash mail (b) cram mail (c) draft mail
(d) spam mail (e) starred mail
Q28. Data on a floppy disk was recorded in rings called _____.
(a) flip (b) ringers (c) rounders
(d) fields **(e) segments**
Q29. Choose the odd one out:
(a) Word (b) Excel (c) Access
(d) Keyboard (e) PowerPoint
Q30. A device that not only provides surge protection, but also furnishes the computer with battery backup power during a power outage is _____.
(a) Battery strip **(b) UPS** (c) Surge strip
(d) USB (e) Memory
Q31. A(n) _____ allows you to access your e-mail from anywhere.
(a) Forum **(b) Webmail interface**
(c) Message Board (d) Weblog (e) EEPROM
Q32. Which of the following is not a valid memory unit?
(a) ILB (b) KB (c) YB
(d) PB (e) Byte
Q33. Which of the following is a machine independent program?
(a) High level language (b) Low level language
(c) Assembly language (d) Machine language
(e) None of these
Q34. Which one of the following is not an e-mail service provider?
(a) Hotmail (b) Gmail **(c) Bing**
(d) Yahoo mail (e) Outlook
Q35. Which of the following fields of an e-mail hides the identity of the recipients?
(a) To (b) From (c) Cc
(d) Bcc (e) Subject
Q36. Using output devices one can _____.
(a) View or Print Data (b) Modify Data
(c) Store Data (d) Replicate Data
(e) Enter Data
Q37. Which among the following functions does Ctrl+P perform?
(a) Project (b) Erase (c) Copy
(d) Paste **(e) Print**
Q38. The key combination of 'Ctrl + Right Arrow' is used to _____ in MS Word.
(a) Move the cursor one word to the right
(b) Move the cursor to the end of the line
(c) Move to cursor to the end of the document
(d) Move the cursor one paragraph down
(e) None of these
Q39. The default extension of Power point 2013 is-
(a) .ppt (b) .pdf **(c) .pptx**
(d) .pps (e) .ppn
Q40. _____ is a useful tool which allows you to create a huge number of documents by merging the main document with the data source.
(a) Mail Merge (b) Track Change (c) Page Margin
(d) Orientation (e) Indentation

History

The word Computer in earlier times meant a person who performed calculations or computations. With years its definition changed to a machine that performs calculations. It can perform all type of mathematical and logical

operations; it can accept data, store data, retrieve data, process data and produce output.

Charles Babbage was known as father of computer. He invented two machines in 1822 introduced **Difference Engine** and in 1834, introduced **Analytical engine**

Difference Engine	Charles Babbage	First automatic mechanical calculator
Analytical Engine	Charles Babbage	Mechanical general-purpose computer
Z1	Konrad Zuse	World's first freely programmable computer
MARK-1	Konrad Zuse	First Freely programmable Computer
ENIAC	John W. Mauchly and J. Presper Eckert	First general purpose programmable electronic computer
EDSAC	John von Neumann	First computer to store program
EDVAC	John W. Mauchly and J. Presper Eckert	Binary serial computer
UNIVAC	John W. Mauchly and J. Presper Eckert	First general-purpose computer for commercial use
Intel 4004	Intel	First commercially available microprocessor by Intel, a 4-bit CPU
LISA (Local Integrated Software Architecture)	Apple Inc.	First commercial personal computers to have a GUI
Dataphone	AT&T	First AT&T Commercial modem

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ARPANET	United States Department of Defence	Early packet switching network and the first network to implement the protocol suite TCP/IP.
NEXUS Browser (WorldWideWeb)	Tim Berners-Lee	First Web Browser was WorldWideWeb later named Nexus. The first commonly available web browser with a graphical user interface was Erwise .
Six Degrees		First social networking/ social media site

ENIAC was the first digital computer and it was invented by J.Presper Eckert and John Mauchly at the University of Pennsylvania and began construction in 1943. It uses 18000 vacuum tubes as a storing device. They were also founders of the first computer company, it was initially named Electronic Controls Company which was later changed to **Eckert-**

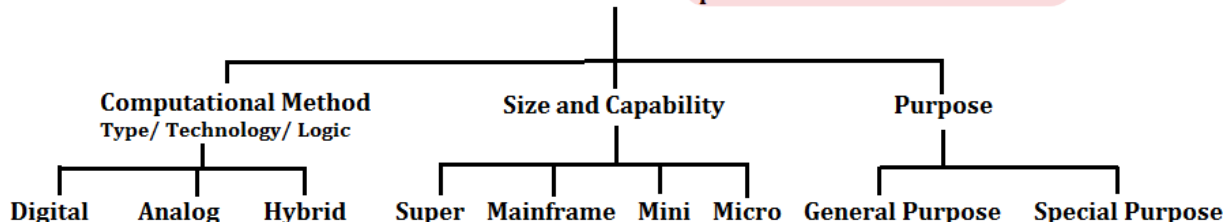
Mauchly Computer Corporation, and released a series of mainframe electronic digital stored-program computer under the name of **UNIVAC**. MIT introduces the **whirlwind** machine (first computer with RAM) on March 8, 1955.

Generation of Computer

Subject	1 st generation	2 nd generation	3 rd generation	4 th generation	5 th generation
Period	1940-1956	1956-1963	1964-1971	1971-present	present & beyond
Circuitry	Vacuum tube	Transistor	Integrated chips (IC)	Microprocessor (VLSI)	ULSI (Ultra Large Scale Integration) technology
Memory Capacity	20 KB	128KB	1MB	Semiconductor type and very high	VLSI and ULSI
Processing Speed	300 IPS inst. Per sec.	300 IPS	1MIPS(1 million inst. Per sec.)	Faster than 3 rd generation	Very fast
Programming Language	Assembly Language	High level language (FORTRAN, COBOL, ALGOL)	C,C++	C,C++,Java	All the Higher level languages, Neural networks,
Example of computers	UNIVAC, EDVAC	IBM 1401, IBM 7094, CDC 3600,D UNIVAC 1108	IBM 360 series, 1900 series	Pentium series Multimedia, Stimulation	Artificial Intelligence, Robotics

Types of computer

Classification of Computers



Analog computer introduced by Lord Kelvin. Numerical data are represented by measurable physical variables such as electrical voltage. A thermometer is a simple analog computer.

Digital computer that accepts and process data in the form of numbers and all the character are converted into binary code.

Hybrid computer used the combined feature of analog and digital machine. you can see hybrid computer in geological departments.

Microcomputer these are small relatively inexpensive computer designed for personal and office use. It has lowest

storing and processing speed. These can be laptop or desktop.

Minicomputer powerful as compare to microcomputer it has higher memory provide faster operating speeds and large storage capacities than microcomputers. It can be used as a server and capable of supporting from 2 to 200 users.

Mainframe computer it has very high memory and processing speed and used as a server (can support thousands of users)

Super computer can be used for complex type of application i.e. specific research, weather forecasting, Weapon designing etc.

CDC 6600 was the first successful supercomputer.

Sunway TaihuLight of China is the fastest supercomputer in the world.

PARAM-8000 India's first Super Computer developed by C-DAC Pune in 1998.

Shasra T is considered as **India's fastest super computer**, manufactured by Indian Institute of Science.

Servers are dedicated computers that serve the needs or request of other programs or computer.

Workstations serve usually one user only.

Information appliances are computers specially designed to perform a specific "user-friendly" function—such as playing music, photography.

An embedded system is a computer system with a dedicated function within a larger system.

Hardware and I/O Devices

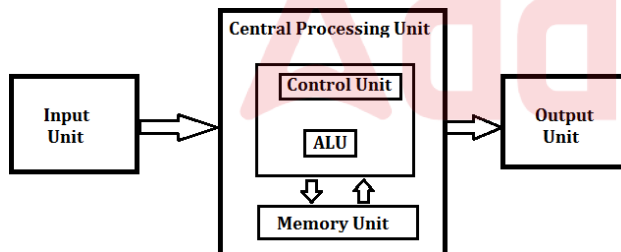
A computer is an electronic device that accepts data from the user (input), processes the data by performing calculations and operations on it and generates the desired Output.

An unprocessed collection or representation of raw facts represented in a manner suitable for communication, interpretation or processing by humans or by automatic means, is known as **Data**.

Personal computers use a number of chips mounted on a main circuit board called **Motherboard**. A motherboard is the physical arrangement in a computer that contains the computer's basic circuitry and components.

An **output device** is any piece of computer hardware equipment used to communicate the results of data processing carried out by an information processing system (such as a computer) which converts the electronically generated information into human-readable form.

The CPU is fabricated as a single Integrated Circuit (IC) chip. It is also known as the **Microprocessor**. Multiprocessor Computers uses two or more central processing units (CPUs) within a single computer system. The term also refers to the ability of a system to support more than one processor and/or the ability to allocate tasks between them.



The **central processing unit (CPU)** is the brain of your computer. It handles all the instructions you give your computer. **The control unit (CU)** is a component of a computer's central processing unit (CPU) that directs operation of the processor. It tells the computer's memory, arithmetic/logic unit and input and output devices how to respond to a program's instructions.

An **arithmetic logic unit (ALU)** is a digital circuit used to perform arithmetic and logic operations. It represents the fundamental building block of the central processing unit (CPU) of a computer.

Instruction Execution: the program which is to be executed is a set of instruction which are stored in memory. The CPU executes the instructions of program to complete a task and this execution takes place inside the CPU with the help of

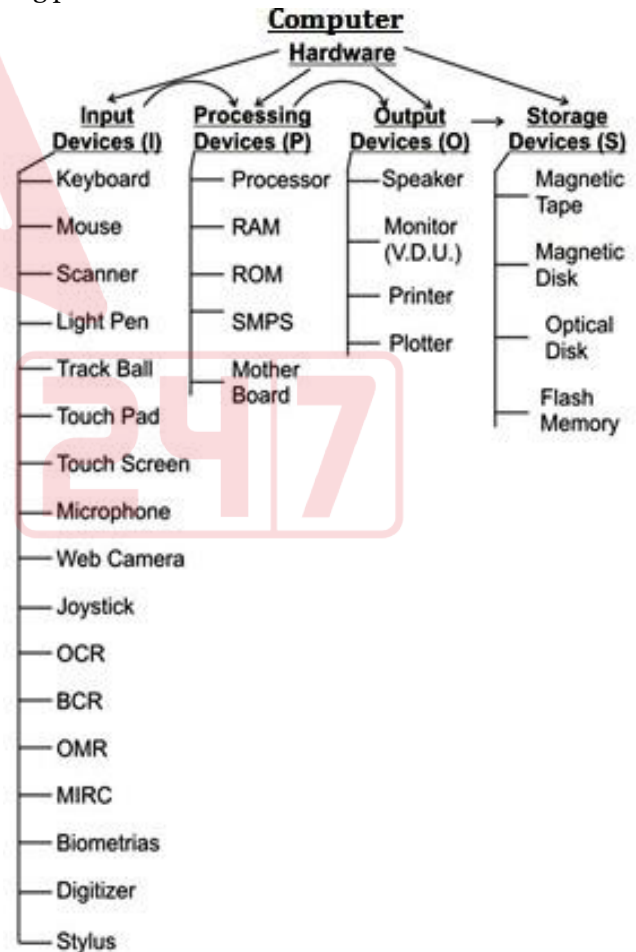
registers ALU (arithmetic logic unit) and CU (control unit). When the processor executes instructions, data is temporarily stored in small local memory location and these are called registers.

Accumulator Register:- which stores the immediate result of arithmetic and logical operations.

Memory address register (MAR) :- which contain the address of memory location to which data is to be stored.

Program counter :- which contain the address of the next instruction to process.

Instruction register:- which contain the current instruction being processed



The data that is fed into a computer processor, received into the computer by a keyboard or other sources is called **Input**. Examples of input devices include keyboards, mouse, scanners, digital cameras and joysticks.

A **keyboard** is a typewriter-style device, which uses an arrangement of buttons or keys, to act as mechanical levers

or electronic switches. Most of the commonly available personal computers have a keyboard, popularly known as Qwerty.

Function Keys	F1-F2
Toggle Keys	Caps Lock, Num Lock,
Modifier Keys	Shift, Alt, Ctrl, Fn
Alphanumeric Keys	A-Z, 0-9

'Caps lock' and 'Num lock' keys are called as **Toggle Keys** because when pressed, they change their status from one state to another.

Numeric Keypad is a keypad located on the right hand side of the keyboard. It consists of digits and mathematical operators.

A **Modifier key** is a special key (or combination) on a computer keyboard that temporarily modifies the normal action of another key when pressed together. By themselves, modifier keys usually do nothing; that is, pressing any of the Shift, Alt, or Ctrl keys alone does not (generally) trigger any action from the computer.

A **Mouse** is the most popular input device which is used today for interactive processing and for the one line entry of data for batch processing. The first computer mouse was invented by **Douglas Engelbart**.

Drag and Drop refers to the action of clicking and holding down the mouse button, while moving the mouse and then releasing the mouse button.

Joystick is the device that moves in all directions and controls the movement of a pointer.

A **Touch Screen** is a type of display screen device that is placed on the computer monitor to allow direct selection or activation of the computer when the user touches the screen. It acts as both input and output device.

Light Pen is the pen shaped device, which can sense light and is used to point at spots on a video screen.

A technology enables a high-speed reading of large quantities of data and transferring these data to the computer without using a keyboard. It is referred as **Optical Mark Reader (OMR)**. It uses a beam of light that is reflected on the paper with marks, to capture presence and absence of marks.

MICR reads the characters by examining their shapes in a matrix form and the information is then passed on to the computer. MICR stands for **Magnetic Ink Character Reader**. It provides a high level of security and is therefore used by the banking industry for faster processing of the cheque.

Bar Code is a machine readable code, which is represented by parallel vertical lines with varying widths. For reading these bar-coded data, a device is used, which is known as a Bar Code Reader (BCR)

Optical Character Recognition (OCR) is used to scan the document containing text. It is the mechanical or electronic conversion of scanned or photographed images of typewritten or printed text into machine-encoded/computer-readable text.

A **point of sale terminal (POS terminal)** is an electronic device used to process card payments at retail locations.

The device that prints information from the computer onto the paper is **Printer**.

The printed form of output is referred as **Hard Copy**. The form of output displayed on the screen is referred as **Soft Copy**.

Pages per Minute (PPM) is the unit used to count the speed of the printer.

On the basis of technology, printers are categorized into **Impact and Non- Impact Printers**.

Impact printers create an image by using some mechanism to physically press an inked ribbon against the page, causing the ink to be deposited on the page in the shape desired.

I) Dot matrix :- The dot-matrix printer uses print heads containing from 9 to 24 pins. These pins produce patterns of dots on the paper to form the individual characters

II) Daisy wheel:- A hammer strikes a "petal" containing a character against the ribbon, and the character prints on the paper. Its speed is slow typically 25-55 characters per second.

III) Line printer:- Line printers, or line-at-a-time printers, use special mechanism that can print a whole line at once; they can typically print the range of 1,200 to 6,000 lines per minute

IV) Drum printer:- A drum printer consists of a solid, cylindrical drum that has raised characters in bands on its surface. The number of print positions across the drum equals the number available on the page.

V) Chain printer:- A chain printer uses a chain of print characters wrapped around two pulleys

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VI) Band printer:- Band printer has a steel band divided into five sections of 48 characters each.

Non – Impact Printers do not touch the paper when creating an image.

I) Ink-jet printers:- One or more nozzles in the print head emit a steady stream of ink drops. Droplets of ink are electrically charged after leaving the nozzle. The droplets are then guided to the paper by electrically charged deflecting plates

II) Laser printers:- Laser printers use buffers that store an entire page at a time. When a whole page is loaded, it will be printed.

III) Thermal printer:- is a digital printing process which produces a printed image by selectively heating coated

thermo chromic paper, or thermal paper as it is commonly known, when the paper passes over the thermal print head.

A plotter is an output device that interprets commands from a computer to make line drawings on paper with one or more automated pens. Unlike a regular printer, the plotter can draw continuous point-to-point lines directly from vector graphics files or commands.

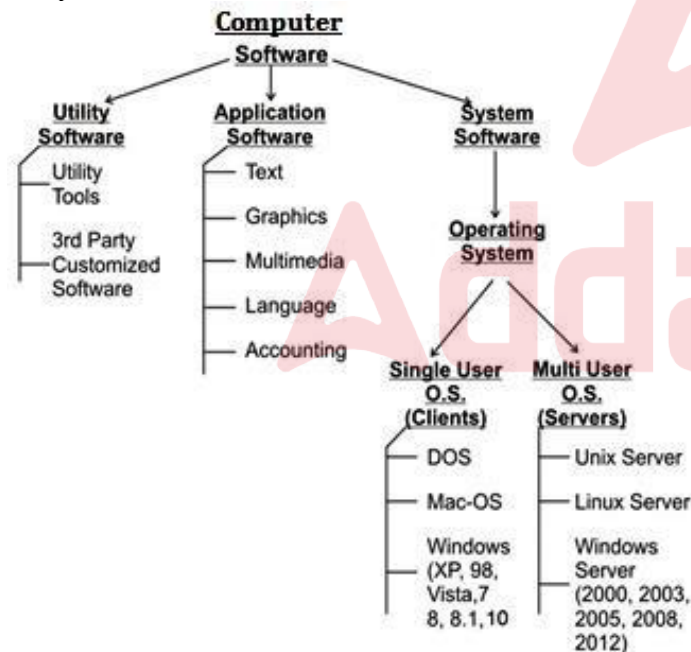
An **uninterruptible power supply (UPS)** is a device that allows a computer to keep running for at least a short time when the primary power source is lost.

A **Monitor** is a TV-like display attached to the computer on which the output can be displayed and viewed. It can either be a monochrome display or a color display. The number of pixels displayed on a screen is known as **Resolution**.

Software and Operating System

A set of instructions that tells the computer about the tasks to be performed and how these tasks are to be performed, is known as **Software**.

The set of instructions, which control the sequence of operations, are known as **Program**. It is a sequence of instructions, written to perform a specified task with a computer.



Application software is a group of program designed for fulfill the demand of end user e.g. MS office, PowerPoint, Windows Media Player.

System software is a program which is created for the system and to make the system user friendly such as operating system or is a type of computer program that is designed to run a computer's hardware and application programs.

Utility software designed to help analyze, configure, optimize or maintain a computer such antivirus software.

Operating system is a set of programs that help in controlling and managing the hardware and the software resources of a computer system. **Main functions of operating system are :-**

- Process management
- Memory management
- File management
- Security
- Command and interpretation
- Resource allocation

Types of OS.

1) Batch operating system : Here data and program that need to be processed are bundled and collected as a batch and executed together.

2) Multiprogramming operating system : It allows the instruction and data from two or more separate process to reside in primary simultaneously. Multiprogramming system are multitasking multiuser and multiprocessing operating system.

3) Single user : It is designed for single user and a single person use it at a time i.e. DOS window's 95 etc.

4) Distributed operating system : It is the one which manages a collection of independent computers and makes them appear to the user of the system as a single computer. **5) Real Time Operating System (RTOS) :** It is a computing environment that reacts to input within a specific time period. It is used at those Places in which we Requires higher and Timely Response.

6) Time Sharing System: A time sharing system allows the many users to simultaneously share the computer resources. Since each action or command in a time-shared system take a very small fraction of time, only a little CPU time is needed for each user.

7) Mobile OS: Windows 10 Mobile is the latest name for Microsoft's phone and tablet operating system. Google's latest's version of its android OS is **Nougat** and iOS i.e. iPhone Operating System's latest version is **iOS 10**.

Computer Languages

Low level language: these are coded in a form which is easy to understand by the processor.

Machine language: it is also a type of low level language these can be develop in binary language (0 and 1) .

Assembly language: it is also a type of low level language and using the human readable instruction of the CPU. It is written as 'MOVA.'

High level language programmer can write code in simple easy language, it is user friendly . E.g. C, JAVA

C language: it is a middle level programming language and also known as procedural language
C++ is high level language that uses the OOPS concept.

Fortran: it is known as formula translation. It is used for scientific application

COBOL (Common Business Oriented Language): used for record keeping and data management in business organizations.

BASIC (Beginner's All Purpose Symbolic Instruction Code): first language designed for non-professional programmers.

PASCAL: it is developed as a teaching tool for programming concepts.

Simula was the first object-oriented programming language. **Java, Python, C++, Visual Basic .NET and Ruby** are the most **popular Object Oriented Programming languages**. The Java programming language is designed especially for use in distributed applications on corporate networks and the Internet. Ruby is used in many Webapplications. **Curl, Smalltalk, Delphi and Eiffel** are also examples of object-oriented programming languages.

Language processor (Translator): Programmers write their program in one of the high level language because it is much easy to code in these language but computer does not understand any of these language so it is necessary to

convert program into a machine language so translator do this work.

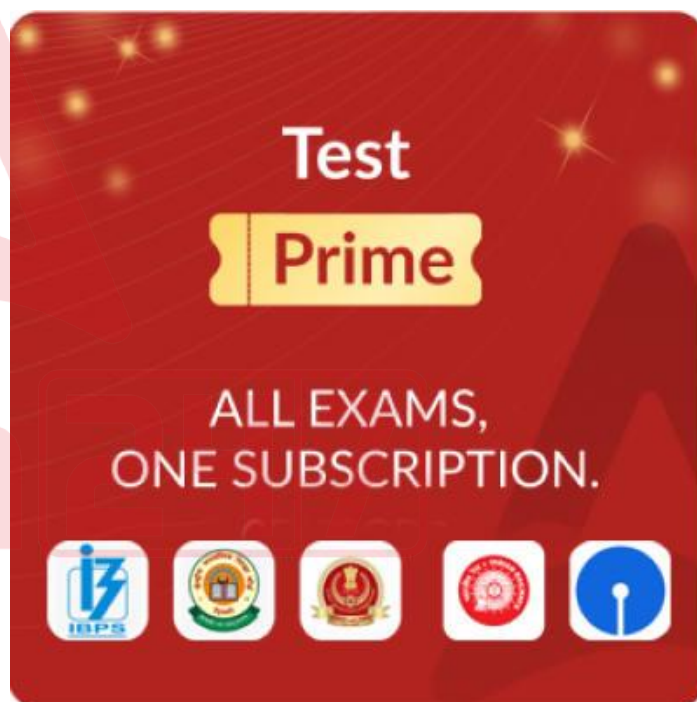
Loader: It loads the code which is translated by translator into the main memory and makes it ready to execute.

Linker is used to combine all the object files and convert them into a final executable program.

Interpreter converts high level language program into machine language. It is very slow because it convert program line by line.

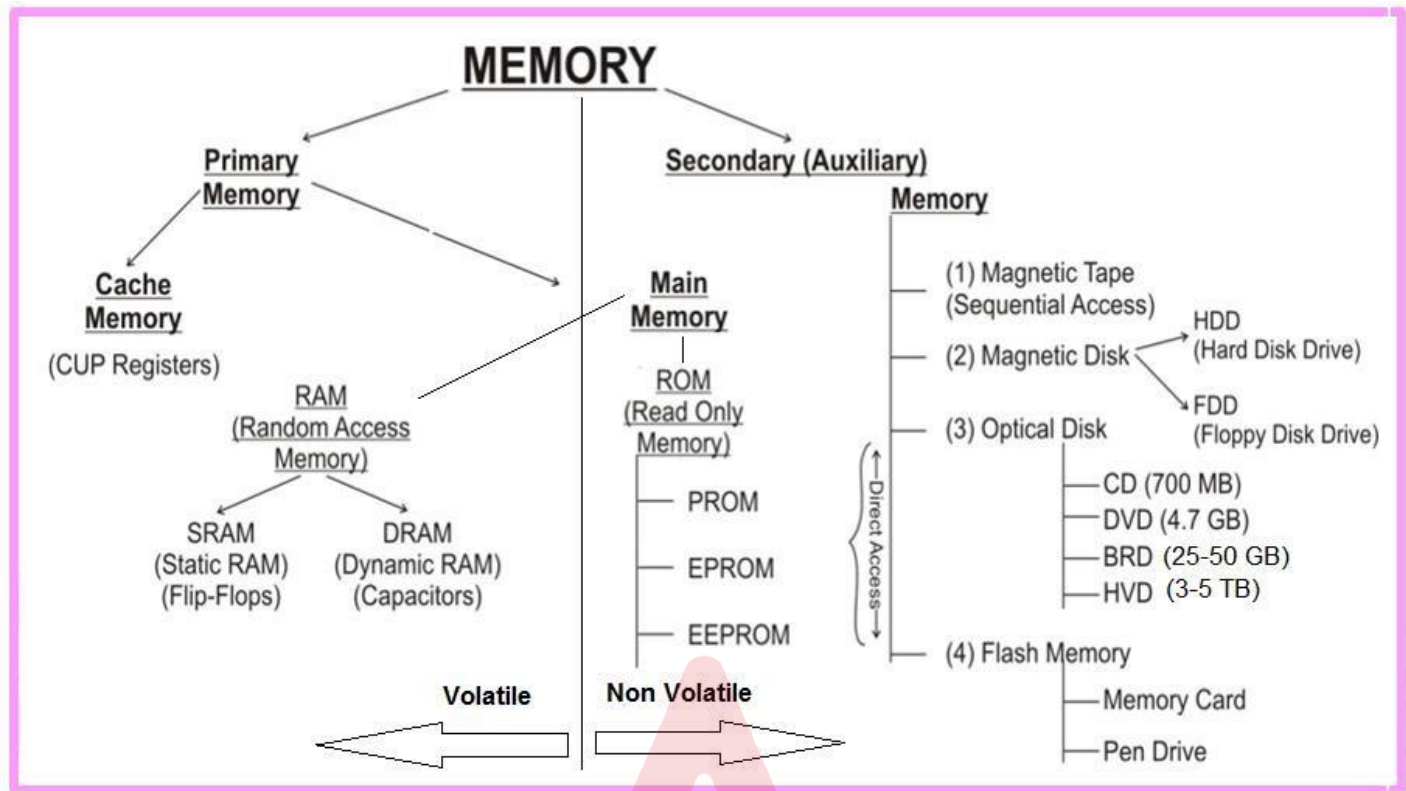
Compiler: It also translates the program from high level language to machine language. It is very fast because it converts the whole program into machine language.

Assembler: It is used for converting the code of low level language (assembly language) into machine level language.



MEMORY MANAGEMENT

8 bit	1 byte
1024 Byte	1 KB (Kilo Byte)
1024 KB	1 MB (Mega Byte)
1024 MB	1 GB (Giga Byte)
1024 GB	1 TB (Tera Byte)
1024 TB	1 PB (Peta Byte)
1024 PB	1 EB (Exa Byte)
1024 XB	1 ZB (Zeta Byte)
1024 ZB	1 YB (Yota Byte)



A group of 4 bits is called a **nibble**. A byte is also known as an **Octet**.

Primary Storage (memory), also known as main storage and it is the area in a computer in which data is stored for quick access by the computer's processor. The terms random access memory (RAM) and memory are often as synonyms for primary or main storage. Primary storage is volatile and can be contrasted with non-volatile secondary storage, also known as auxiliary storage.

Cache memory is a smaller, faster memory which stores copies of the data from frequently used main memory locations. A CPU cache is a hardware cache used by the central processing unit (CPU) of a computer to reduce the average time to access data from the main memory.

Secondary memory is where programs and data are kept on a long-term basis. Common secondary storage devices are the hard disk and optical disks. The hard disk has enormous storage capacity compared to main memory. The hard disk is usually contained inside the case of a computer.

Read-only memory (ROM) is a storage medium used in computers and other electronic devices. Data stored in ROM can only be modified slowly or with difficulty, or not at all.

ROM is non-volatile and the contents are retained even after the power is switched off.

It only allows reading.

The types of ROM include PROM, EPROM and EEPROM.

PROM - (programmable read-only memory) is a memory chip on which data can be written only once.

The difference between a PROM and a ROM (read-only memory) is that a PROM is manufactured as blank memory, whereas a ROM is programmed during the manufacturing process. To write data onto a PROM chip, you need a special device called a PROM programmer or PROM burner.

EPROM - (erasable programmable read-only memory) is a special type of PROM that can be erased by exposing it to ultraviolet light.

EEPROM - (electrically erasable programmable read-only memory). EEPROM is a special type of PROM that can be erased by exposing it to an electrical charge.

Random Access Memory (RAM), allows the computer to store data for immediate manipulation and to keep track of what is currently being processed.

RAM is referred to as **volatile memory** and is lost when the power is turned off.

It also known as read/write memory as information can be read from and written onto it.

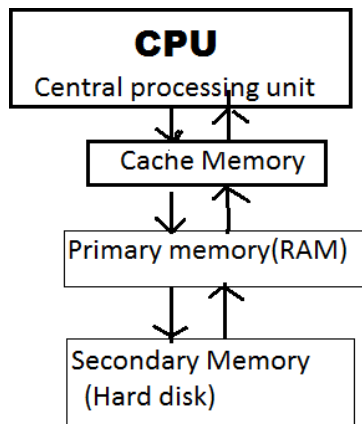
The two main types of RAM are **Static RAM** and **Dynamic RAM**.

SRAM retains data as long as power is provided to the memory chip and need not be refreshed periodically. It is often used as CPU Cache memory. SRAM stands for Static Random Access Memory.

The data on **DRAM** continues to move in and out of the memory as long as power is available and must be

continually refreshed to maintain the data. DRAM stands for Dynamic Random Access Memory.

Virtual memory is memory on the hard disk that the CPU uses as an extended RAM.



	Access Time	Storage Capacity	Cost per bit of storage
Primary memory	Faster	Smaller	High
Secondary memory	Slower	Higher	Low

Memory can also be categorized on the basis of their material:

Semiconductor memory:-such as RAM, ROM, EPROM, and flash memory.

Magnetic memory:-such as hard disk, floppy disk and magnetic tapes.

Optical memory:-such as computer disk, DVD and blue-ray disk.

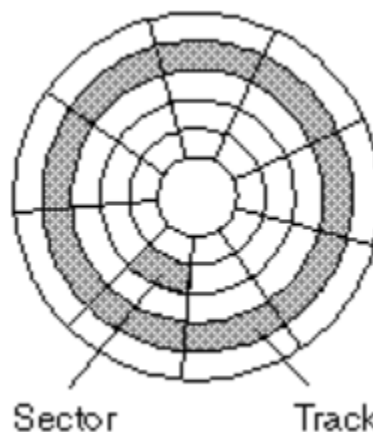
A **bus**, in computing, is a set of physical connections (cables, printed circuits, etc.) which can be shared by multiple hardware components in order to communicate with one another.

The **address bus** (sometimes called the memory bus) transports memory addresses which the processor wants to access in order to read or write data. It is a unidirectional bus.

The **data bus** transfers instructions coming from or going to the processor. It is a bidirectional bus.

The **control bus** (or command bus) transports orders and synchronisation signals coming from the control unit and travelling to all other hardware components. It is a bidirectional bus, as it also transmits response signals from the hardware.

Structure of hard disk



- **Track**- concentric division of disk
- **Sector**- subdivision of track
- **Platter**- circular magnetic disk which store magnetic data
- **Head**- which perform read write data
- **Spindle** -Spindle is the axis on which the hard disk spin
- **Disk -Formatting**- division of disk into track and sector is known as Disk formatting
- **Speed of disk**- speed of disk is measured in revolution per minute (RPM)

Number System

The radix or base is the number of unique digits, including zero, used to represent numbers in a positional numeral system. For example, for the decimal system the radix is ten, because it uses the ten digits from 0 through 9. And that of Binary is base 2.

Number System

Decimal, Binary, Octal and Hexadecimal Equivalents			
Decimal	Binary	Octal	Hexadecimal
0	0000	000	0
1	0001	001	1
2	0010	002	2
3	0011	003	3
4	0100	004	4
5	0101	005	5
6	0110	006	6
7	0111	007	7
8	1000	010	8
9	1001	011	9
10	1010	012	A
11	1011	013	B
12	1100	014	C
13	1101	015	D
14	1110	016	E
15	1111	017	F

Hexadecimal to Binary: Refer the above table for the conversion process

$$(1A2)_{16} = (?)_2$$

$$1=0001, \quad A=1010, \quad 2=0010; \quad \text{Hence}$$

$$(1A2)_{16} = (000110100010)_2$$

Decimal to Binary: $(75)_{10} = (?)_2$

Divide 75 by 2 (and write down its remainder).

$$\begin{array}{r|l} 75 & \\ \hline 2 & 37 \quad 1 \\ 2 & 18 \quad 1 \\ 2 & 9 \quad 0 \\ 2 & 4 \quad 1 \\ 2 & 2 \quad 0 \\ 2 & 1 \end{array}$$

$$\text{Hence } (75)_{10} = (101011)_2$$

Any number system to decimal:

Sum of all (Digit \times (Base)^{Base's Place})

Example: $(1A2)_{16} = (?)_{10}$ (From the table you can refer A is equivalent to 10)

$$((1 \times 16^2) + (10 \times 16^1) + (2 \times 16^0)) = 256 + 160 + 2 = 418$$

Example: $(110110)_2 = (?)_{10}$

$$((1 \times 2^5) + (1 \times 2^4) + (0 \times 2^3) + (1 \times 2^2) + (1 \times 2^1) + (0 \times 2^0)) = 32 + 16 + 4 + 2 = 54; \quad (110110)_2 = (54)_{10}$$

Octal to Binary: $(345)_8 = (?)_2$ (Write down 3 bit binary equivalents of all digits)

$$3=011, \quad 4=100, \quad 5=101; \quad \text{Hence } (345)_8 = (011100101)_2$$

Octal to Hexadecimal: Convert to Binary first and then group 4 bits to get hexadecimal number. Example: $(345)_8$

$$= (?)_{16} \Rightarrow (345)_8 = (011100101)_2 = 0000 \ 1110 \ 0101 = (0E5)_{16}$$

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Test

Prime

ALL EXAMS,
ONE SUBSCRIPTION.



Computer Network

Different types of network are: LAN, MAN and WAN.

A **LAN (local area network)** is a group of computers and network devices connected together, usually within the same building. By definition, the connections must be high speed and relatively inexpensive (e.g., token ring or Ethernet).

A **MAN (metropolitan area network)** is a larger network that usually spans several buildings in the same city or town.

A **WAN (wide area network)**, in comparison to a MAN, is not restricted to a geographical location, although it might be confined within the bounds of a state or country. A WAN connects several LANs, and may be limited to an enterprise (a corporation or an organization) or accessible to the public. The technology is high speed and relatively expensive. The Internet is an example of a worldwide public WAN.

A **personal area network (PAN)** is a computer network used for data transmission amongst devices such as computers, telephones, tablets and personal digital assistants.

Campus Area Network or corporate area network is a computer network made up of an interconnection of local area networks (LANs) within a limited geographical area.

A **Storage Area Network (SAN)** is a specialized, high-speed network that provides block-level network access to storage.

A **virtual private network (VPN)** extends a private network across a public network, such as the Internet. It enables users to send and receive data across shared or public networks as if their computing devices were directly connected to the private network.

Networking Devices

Modem: Modem stands for Modulator-Demodulator. It is used to connect computers for communication via telephone lines.

Hub: It works at the Physical layer. It just acts like a connector of several computers i.e. simply connects all the devices on its ports together. It broadcasts all the data packets arriving at it with no filtering capacity.

Switch: It works at the Data Link Layer. It is used for dividing a network into segments called subnets. It provides filtering of data packets and prevents network traffic also.

Repeater: It operates at the Physical Layer. It is used to amplify a signal that has lost its original strength so as to enable them to travel long distances.

Router: It works at the Network Layer and is used to connect different networks that have different architectures and protocols. It sends the data packets to desired destination by choosing the best path available thus reducing network traffic.

Gateway: It operates in all the layers of the network architecture. It can be used to connect two different networks having different architectures, environment and even models.

Bridge: They are used to connect two LANs with the same standard but using different types of cables. It provides an intelligent connection by allowing only desired messages to cross the bridge thus improving performance. It uses physical addresses of the packets for this decision.

IPv4 - 32 bits numeric address

IPv6 - 128 bits hexadecimal address

IPv6 does not use broadcast messages and has three types of addresses, which are categorized as :

Unicast addresses. A packet is delivered to one interface.

Multicast addresses. A packet is delivered to multiple interfaces.

Anycast addresses. A packet is delivered to the nearest of multiple interfaces (in terms of routing distance).

With an IPv4 IP address, there are five classes of available IP ranges: Class A, Class B, Class C, Class D and Class E, while

only A, B, and C are commonly used. Each class allows for a particular range of valid IP addresses. Class D is reserved for multicast groups and Class E is reserved for future use, or Research and Development Purposes.

Data Communication deals with the transmission of digital data from one device to another. Data is transferred through a pathway called as communication channel which can be physical wire connecting the devices or may be unguided media like laser, microwave etc.

A communication channel has a source or transmitter at one side and a designation or receiver at another side of the network. The source of data origination is single but there may be multiple receivers. A communication channel is of 3 types:

Simplex: This, communication is unidirectional i.e. one of the two devices can transmit the data and the other can only receive the data. For e.g. **Radio broadcasting, television broadcasting etc.**

Half duplex: This communication is bidirectional. Either of the devices can act as transmitter or receiver but only one device can transmit the data at one time. For e.g. **Walkie-Talkie.**

Full Duplex: Here the communication is in both directions and both the devices can simultaneously transmit the data. For e.g. **Telephone conversation.**

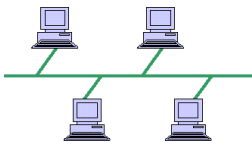
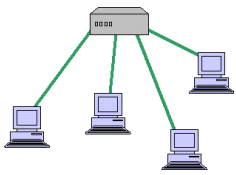
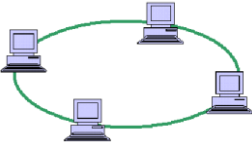
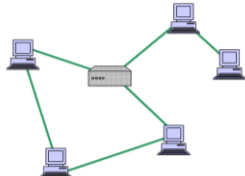
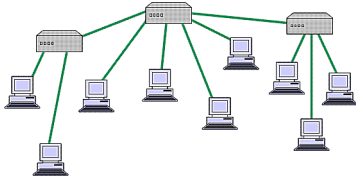
The **Open Systems Interconnection model (OSI)** is a conceptual model that characterizes and standardizes the internal functions of a communication system by partitioning it into abstraction layers. The model is a product of the Open Systems Interconnection project at the **International Organization for Standardization (ISO)**.

1	PHYSICAL LAYER (Media, Signal and Binary Transmission)	Bits
2	DATA LINK LAYER (Physical Addressing)	Frames
3	NETWORK LAYER (Path Determination and IP)	Packets
4	TRANSPORT LAYER (End-to-end connections & reliability)	Segments
5	SESSION LAYER (Inter-host Communication)	Data
6	PRESENTATION LAYER (Data Representation & Encryption)	Data
7	APPLICATION LAYER (Network Process to Application)	Data

Network topology is the arrangement of the various elements (links, nodes, etc.) of a computer network. There are two basic categories of network topologies:

≈ Physical topologies and Logical topologies.

Physical topology is the placement of the various components of a network, including device location and cable installation, while **Logical topology** illustrates how data flows within a network, regardless of its physical design. Various types of topologies are:

Bus Topology		Every computer and network device is connected to single cable.
Star Topology		All the computers are connected to a single hub through a cable. This hub is the central node and all others nodes are connected to the central node.
Ring Topology		Each computer is connected to another computer, with the last one connected to the first. Exactly two neighbors for each device.
Mesh Topology		It is a point-to-point connection to other nodes or devices. All the network nodes are connected to each other
Tree Topology		It has a root node and all other nodes are connected to it forming a hierarchy. It is also called hierarchical topology.

Hybrid topology uses a combination of any two or more topologies in such a way that the resulting network does not exhibit one of the standard topologies.

Cloud computing is a type of Internet-based computing that provides shared computer processing resources and data to computers and other devices on demand.

Public clouds are owned and operated by companies that offer rapid access over a public network to affordable computing resources.

A **private cloud** is infrastructure operated solely for a single organization, whether managed internally or by a third party, and hosted either internally or externally.

A **hybrid cloud** uses a private cloud foundation combined with the strategic integration and use of public cloud services.

Google Drive is a personal cloud storage service from Google which gives every user 15 GB of Drive storage space. OneDrive is Microsoft's service for hosting files in the "cloud computing". OneDrive offers 5GB of storage space for free.

Types of Cloud computing Service

1. **Platform as a Service (PaaS)**: - It is a category of cloud computing service that provide a platform & Environment to build application and service over the internet.

Example-A Amazon web service, Azure Google App Engine etc.

2. **Software as a Service (SaaS)**: - It is a Category of cloud computing service which delivering services and application over the internet

Example: -Microsoft office 365, Dropbox, Elogua etc.

3. **Infrastructure as a Service (IaaS)**: - It is a category of cloud computing which is known as Service model that delivers computer infrastructure on an outsource basis to support various operation.

Infrastructure means -web server, database, development tools etc.

Example: -Amazon Web Services, IBM, OpenStack etc.

Internet

The **Internet** is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to link several billion devices worldwide.

It is a **network of networks** that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by a broad array of electronic, wireless, and optical networking technologies.

ARPANET adopted TCP/IP in 1983, and from there researchers began to assemble the "network of networks" that became the modern Internet.

The **World Wide Web** (abbreviated as WWW or W3, commonly known as the Web) is a system of interlinked hypertext documents that are accessed via the Internet.

A **Website** is a set of related web pages served from a single web domain.

A **Home page, index page, or main page** is a page on a website. A home page usually refers to:

- The initial or main web page of a website, sometimes called the "front page" (by analogy with newspapers).
- The first page that appears upon opening a web browser program, which is also sometimes called the start page. This 'start page' can be a website or it can be a page with various browser functions such as the visual display of websites that are often visited in the web browser.
- The web page or local file that automatically loads when a web browser starts or when the browser's "home" button is pressed; this is also called a "home page". The user can specify the URL of the page to be loaded, or alternatively choose e.g. to re-load the most recent web page browsed.
- A personal web page, for example at a web hosting service or a university web site that typically is stored in the home directory of the user.

A **Hyperlink** is a reference to data that the reader can directly follow either by clicking or by hovering or that is followed automatically

A **web browser** (commonly referred to as a browser) is a software application for retrieving, presenting and traversing information resources on the World Wide Web.

Some of the famous browsers are **Safari, Chrome, Firefox, Bolt, UC Browser and Internet Explorer**

The **Uniform Resource Locator**, abbreviated as URL is a specific character string that constitutes a reference to a resource. In most web browsers, the URL of a web page is displayed on top inside an address bar.

(i) An **example of a typical URL** would be "<http://www.bankersadda.com>".

Here the **domain name** is 'bankersadda.com'

Downloading means to receive data to a local system from a remote system or to initiate such a data transfer

Uploading refers to the sending of data from a local system to a remote system such as a server or another client with

the intent that the remote system should store a copy of the data being transferred

An **Internet Protocol address** (also known as an **IP address**) is a numerical label assigned to each device (e.g., computer, printer) participating in a computer network. It acts as an identifier for a computer. It is a unique address for every computer.

Domain names are used to identify one or more IP addresses.

The **universal resource locator**, or URL, is an entire set of directions, and it contains extremely detailed information. The domain name is one of the pieces inside of a URL.

Type	Description
com	Commercial and for profit organization
edu	Educational provider, college, Universities
gov	Government agencies
Mil	US military sites
net	Internet infrastructure and service providers
org	Miscellaneous and Non-profit organisations

An **email attachment** is a computer file sent along with an email message. One or more files can be attached to any email message, and be sent along with it to the recipient.

Hotmail was co-founded by an Indian American entrepreneur Sabeer Bhatia along with Jack Smith in July of 1996



WINNERS

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CC (Carbon Copy) in e – mail indicates those who are to receive a copy of a message addressed primarily to another.

The list of CC recipients is visible to all other recipients of the message.

An additional **BCC (blind carbon copy)** field is available for hidden notification; recipients listed in the BCC field receive a copy of the message, but are not shown on any other recipient's copy (including other BCC recipients)

The **Drafts folder** retains copies of messages that you have started but are not yet ready to send.

The first email was sent by **Ray Tomlinson** to himself in 1971.

Internet Explorer was deprecated in Windows 10, with **Microsoft Edge** replacing it as the default web browser.

Computer Security

Malware, short for **malicious software**, is any software used to disrupt computer operation, gather sensitive information, or gain access to private computer systems. It can appear in the form of executable code, scripts, active content, and other software.

Example-**Virus, Worm, Trojan Horse, Spyware, Ransomware, Rootkit, Adware, Keylogger** etc.

A **Computer Virus** is a computer program or code that can replicate itself and spread from one computer system to another system. A computer virus has the capacity to corrupt or to delete data on your computer and it can utilize an e-mail program to spread the virus to other computer systems.

In the worst-case scenario, it can even delete everything on your hard disk. The purpose of it is to disrupt the operation of the computer or the program.

Some examples of Computer Virus are **Stealth virus, Disk Killer, Stone virus, Sunday, Cascade, Nuclear, Word Concept**, etc.

Worm: - It is type of malware which spread over the network without the need for a host file and also self-replicating, it tries to slow down the system

Trojan Horse: - It is type of malware that misleads users of its true intent by disguising itself as a genuine program. that downloads onto a computer disguised as a legitimate program. And not self-replicating

Spyware: - It is a type of malware which access data and information from your system and transfer to another (3rd party) without user knowledge.

Ransomware: - It is types of malwares which encrypt your files, data, information and for decrypting these file and data demanding some Ransome amount.

Adware: - adware is unwanted advertisement display on system as pop-up .it comes along with

software download and package.

Keylogger: - keylogger is a type of malware which record user keystroke behaviors to obtain user sensitive information like password.

Rootkit: - Rootkit is a malware that provides privileged root level (i.e., administrative) access and control over a target device

Antivirus Software is used to scan the hard disk to remove the virus from them. Some of the famous anti-viruses available are Avast, Norton, Avira, Kaspersky, AVG, etc.

A person who uses his or her expertise to gain access to other people's computers to get information illegally or do damage is a **Hacker**.

Firewall: - It is a network security system which prevent form unauthorized attach It works on monitoring and filtering.

Authorization is the function of specifying access rights to resources related to information security and computer security in general and to access control in particular. More formally, "to authorize" is to define an access policy.

Authentication is the act of confirming the truth of an attribute of a single piece of data or entity. It might involve confirming the identity of a person by validating their identity documents, verifying the validity of a website with a digital certificate, tracing the age of an artifact by carbon dating, or ensuring that a product is what its packaging and labeling claim to be. In other words, Authentication often involves verifying the validity of at least one form of identification.

Phishing is the attempt to acquire sensitive information such as usernames, passwords, and credit card details (and sometimes, indirectly, money) by masquerading as a trustworthy entity in an electronic communication.

A **Spoofing attack** is a situation in which one person or program successfully represents oneself as another by falsifying data and thereby gaining an illegitimate advantage.

Microsoft Office is an office suite of desktop applications, servers and services for the Microsoft Windows and Mac operating systems. It includes Microsoft Word, Excel, PowerPoint, Outlook, OneNote, Access and Publisher.

Note: Microsoft Windows Vista was an windows OS for PC not Office Suit.

Office 365 is a subscription service that includes the most recent version of Office, which currently is Office 2016. It comes with the applications you're familiar with, like Word, PowerPoint, and Excel, plus extra online storage, ongoing tech support.

Note- Microsoft Azure is a growing collection of integrated cloud services which developers and IT professionals use to build, deploy and manage applications through our global network of data centres. It provides software as a service (SaaS), platform as a service (PaaS) and infrastructure as a service (IaaS) and supports many different programming languages, tools and frameworks. Microsoft Azure was earlier known as Windows Azure.

SOME NEW FEATURES INTRODUCED IN OFFICE 2016 FOR WINDOWS OS

Share: In Word 2016 for Windows, it is easier than ever to share your documents. When you share your files by using OneDrive or SharePoint Online for Office 365, you can invite people to the document directly from within Word, or send a PDF or Word file as an email attachment. This feature of share is also available for Excel and PowerPoint 2016.

Tell Me: This is a text field where you can enter words and phrases about what you want to do next and quickly get to those features you want to use or actions you want to perform. You can also use Tell Me to find help about what you're looking for, or to use Smart Lookup to research or define the term you entered.

Smart Lookup: Bing search incorporated with applications

New Charts introduced in Excel 2016 : New Chart types and templates are introduced in Excel 2016 such as treemap, sunburst chart (also known as a ring chart), waterfall chart, box plot and histogram, and financial and calendar templates.

Skype and OneDrive Integration : One of the new features added to Word, Excel, and PowerPoint is the ability to use Skype for Business to collaborate and communicate while working on documents. User can IM or video-call someone with Skype from the new

Share pane built into the new Office applications. OneDrive integration supports cloud storage file hosting service that supports access of office document from anywhere on any device.

Some other features:

New animations in PowerPoint (such as the Morph transition), the ability to insert online video in OneNote, and a data loss prevention feature in Word, Excel, and PowerPoint.

New recent-documents feature in Outlook 2016 shows you the documents you've recently worked on in the Office apps, so you don't have to hunt for them on your PC.

Enterprise Data Protection: To manage and prevent data loss at enterprise level, MS Office 2016 comes paced with inbuilt security feature that provide an ease for system admin to enforce policies for content authoring and document sharing.

SOME COMMANDS RELATED TO MS OFFICE

1. Save Vs Save As

"Save" simply saves your work by updating the last saved version of the file to match the current version you see on your screen.

"Save As" brings up a prompt to save your work as a file with a different name. For example, you might choose to save a document called "New Doc" as "Final Doc". This way, you can save you file at different stages and keep multiple versions on your hard drive.

2. Save or convert to PDF

You can use the Office programs to save or convert your files to PDFs so that you can share them or print them using commercial printers. To export or save as PDF, in your Office file, on the File menu, click Export or Save As.

3. Undo Vs Redo

You can undo, redo, or repeat many actions in Microsoft Word, PowerPoint, and Excel. Undo reverses the immediate action. Redo reverts the effects of the undo action.

4. Portrait Vs Landscape

The terms portrait and landscape refer to different orientations of the paper; whether it is oriented vertically or horizontally. A page with portrait orientation, typical for letters, memos, and other text documents, is taller than it is wide. Portrait is vertical mode and landscape is horizontal mode.

MS WORD 2016:

Backstage View in MS Word 2016: MS Word 2016 has a backstage view where you can see the recent documents that you've visited or edited and a few

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templates as well. There is also an option to search for more templates. These templates can help you get the desired layout where a sample data will already be there. You may edit and enter data as you may like.

MS Word 2016 Ribbons:
Quick Access Toolbar

By default, on top is the Quick access toolbar which has 3 default options available: Save, Undo Typing and Repeat Typing. After this there is a drop-down menu for customizing the quick access toolbar. This toolbar is totally customizable; you can position it below the tabs and commands or add more items to it.

To add or remove a command from the quick access toolbar: When you find a favorite command, right-click it, and then click Add to Quick Access Toolbar.

Remove a command by right-clicking it on the Quick Access Toolbar, and then clicking Remove from Quick Access Toolbar.

Tabs in Word 2016

The ribbon in Word and other Office Suite's Application has Tabs. In Word 2016 there are 9 tabs followed by a new feature of "Tell me what you want to do" arranged in a horizontal fashion. The tabs are as follows: File, Home, Insert, design, Layout, References, Mailing, Review, and View. The File tab opens the Info Window and has options arranged in a vertical array: Info, New, Open, Save, Save As, Print, Share, Export, Close, Account, Feedback and Options.

The ribbon containing Tabs also have a new feature of Share and Comment at the extreme right corner.

Note- Each tab has many commands which are grouped into specific categories. Following are the groups for commands under various tabs of MS Word 2016:

Home: Clipboard, Font, Paragraph, Styles and Editing
 Insert: Pages, Tables, Illustrations, Add-ins, Media, Links, Comments, Header & Footer, Text, Symbols
 Design: Document Formatting, Page Background
 Layout: Page Setup, Paragraph, Arrange
 References: Table of Contents, Footnotes, Research, Citation & Bibliography, Captions, Index, Table of Authorities
 Mailings: Create, Start Mail Merge, Write & Insert Fields, Preview Results, Finish
 Review: Proofing, Accessibility, Language, Comments, Tracking, Changes, Compare, Protect
 View: Views, Page Movement, Show, Zoom, Window, Macros

MS WORD 2016 SHORT CUT KEYS
Frequently used short cut keys

To do this	Press
Go to "Tell me what you want to do"	Alt+Q
Open	Ctrl+O
Save	Ctrl+S
Close	Ctrl+W
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Select all	Ctrl+A
Bold	Ctrl+B
Italic	Ctrl+I
Underline	Ctrl+U
Decrease font size 1 point	Ctrl+[
Increase font size 1 point	Ctrl+]
Centre text	Ctrl+E
Left align text	Ctrl+L
Right align text	Ctrl+R
Justify align text	Ctrl+J
Cancel	Esc
Undo	Ctrl+Z
Re-do	Ctrl+Y
Zoom	Alt+W, Q, then tab in Zoom dialog box to the value you want.
Copy formatting from text.	Ctrl+Shift+C
Apply copied formatting to text.	Ctrl+Shift+V

Create and edit documents

To do this	Press
Split the document window.	Alt+Ctrl+S
Remove the document window split.	Alt+Shift+C or Alt+Ctrl+S
Save a document.	Ctrl+S

Delete text and graphics

To do this	Press
Delete one character to the left.	Backspace
Delete one word to the left.	Ctrl+Backspace
Delete one character to the right.	Delete
Delete one word to the right.	Ctrl+Delete
Cut selected text to the Office Clipboard.	Ctrl+X
Undo the last action.	Ctrl+Z
Cut to the Spike. (Spike is a	Ctrl+F3

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feature that allows you to collect groups of text from different locations and paste them in another location).	
---	--

Find, replace and go to specific items in the document

To do this	Press
Open the search box in the Navigation task pane.	Ctrl+F
Replace text, specific formatting, and special items.	Ctrl+H
Go to a page, bookmark, footnote, table, comment, graphic, or other location.	Ctrl+G
Switch between the last four places that you have edited.	Alt+Ctrl+Z

Work with documents in different views

To do this	Press
Switch to Read Mode view	Alt+W, F
Switch to Print Layout view.	Alt+Ctrl+P
Switch to Outline view.	Alt+Ctrl+O
Switch to Draft view.	Alt+Ctrl+N

Change Paragraph Alignment

To do this	Press
Remove a paragraph indent from the left.	Ctrl+Shift+M
Create a hanging indent.	Ctrl+T
Reduce a hanging indent.	Ctrl+Shift+T
Remove paragraph formatting.	Ctrl+Q

Insert Special Characters

To insert this	Press
A field	Ctrl+F9
A line break	Shift+Enter
A page break	Ctrl+Enter
A column break	Ctrl+Shift+Enter
An em dash	Alt+Ctrl+Minus Sign (on the numeric keypad)
An en dash	Ctrl+Minus Sign (on the numeric keypad)
An optional hyphen	Ctrl+Hyphen
A nonbreaking hyphen	Ctrl+Shift+Hyphen
A nonbreaking space	Ctrl+Shift+Spacebar
The copyright symbol	Alt+Ctrl+C
The registered	Alt+Ctrl+R

trademark symbol	
The trademark symbol	Alt+Ctrl+T
An ellipsis	Alt+Ctrl+Period
A single opening quotation mark	Ctrl+` (single quotation mark), ` (single quotation mark)
A single closing quotation mark	Ctrl+' (single quotation mark), ' (single quotation mark)
Double opening quotation marks	Ctrl+` (single quotation mark), Shift+' (single quotation mark)
Double closing quotation marks	Ctrl+' (single quotation mark), Shift+' (single quotation mark)
An AutoText entry	Enter (after you type the first few characters of the AutoText entry name and when the ScreenTip appears)

MS POWERPOINT 2016:

PowerPoint is a slideshow presentation program that's part of the Microsoft office suite of tools. PowerPoint slides can be plain with only text, or they can include pictures and even animation, including moving text and images. Text can be formatted in the same way as text can be formatted in Microsoft Word, including color, size, and font type.

In PowerPoint 2016 there are 9 tabs followed by a new feature of "Tell me what you want to do" arranged in a horizontal fashion. The tabs are as follows: File, Home, Insert, design, Transition, Animation, Slide Show, Review, and View.

1. Home

The home tab in PowerPoint has following groups: Clipboard, Slides, Font, Paragraph, drawing and Editing. The Clipboard, Editing and Font commands are same as that in Word 2016. The Slides group contains commands to insert new slide, choose slide layout, reset the positions and formatting of the slide placeholders and option to organize your slides into sections.

2. Insert

Click Insert to add something to a slide. This includes pictures, shapes, charts, links, text boxes, video and more. The Insert Tab has following groups of commands: Slides, Tables, Images, Illustrations, Add-ins, Links, Comments, Text, Symbols and Media.

3. Design

On the Design tab, you can add a theme or color scheme, or format the slide background. The design tab has following categories or groups of commands:

Themes- Each theme has its own unique set of font, effect, color to create a visually appealing and overall look of the slide.

Variants - The current theme or style can be customized using various color schemes through variants.

Customize- This group contains commands to change slide size and Format Background.

Designer- For instant slide makeovers.

4. Transitions

Set up how your slides change from one to the next on the Transitions Tab. Find a gallery of the possible transitions in the Transition to This Slide group – click More Button at the side of the gallery to see all of them.

5. Animations

User may use the Animations tab to choreograph the movement of things on his slides. Note that you can see many possible animations in the gallery in the Animation group, and see more of them by clicking More Button. Apart from adding animation you can also customize its duration and timing as you need by using advanced animation and timing group of commands.

6. Slide Show

On the Slide Show tab, set up the way that you want to show your presentation to others.

7. Review

The Review tab lets you add comments, run spell-check, or compare one presentation with another (such as an earlier version).

8. View

Views allow you to look at your presentation in different ways, depending on where you are in the creation or delivery process.

9. File

At one end of the ribbon is the File tab, which you use for the behind-the-scenes stuff you do with a file, such as opening, saving, sharing, exporting, printing and managing your presentation. Click the File tab to open a new view called the Backstage.

10. Tools tabs

When you click some parts of your slides, such as pictures, shapes, SmartArt or text boxes, you might see a colourful new tab appear.

For example, the Drawing Tools tab appears when you click a shape or text box. When you click a picture, the Picture Tools tab appears. Other such tabs include SmartArt Tools, Chart Tools, Table Tools and Video Tools. These tabs disappear or change when you click

something else in your presentation.

Terms related to PowerPoint

Slide Show : Each page of a PowerPoint presentation is called a slide. The default orientation of the slide is in landscape layout

Design Template : A design template acts as a coordinated packaged deal. It is created so that even though different slide types can have different layouts and graphics, the whole presentation goes together as an attractive package.

Slide Master : When you want all your slides to contain the same fonts and images (such as logos), you can make those changes in one place—the Slide Master, and they'll be applied to all your slides. To open Slide Master view, on the View tab, select Slide Master:

MS POWERPOINT 2016 SHORT CUT KEYS

Frequently used shortcuts

The following table itemizes the most frequently used shortcuts in PowerPoint.

To do this	Press
Make selected text bold.	Ctrl+B
Change the font size for selected text.	Alt+H, F, and then S
Change the zoom for the slide.	Alt+W, Q
Cut selected text, object, or slide.	Ctrl+X
Copy selected text, object, or slide.	Ctrl+C
Paste cut or copied text, object, or slide.	Ctrl+V
Undo the last action.	Ctrl+Z
Save the presentation.	Ctrl+S
Insert a picture.	Alt+N, P
Insert a shape.	Alt+H, S, and then H
Select a theme.	Alt+G, H
Select a slide layout.	Alt+H, L
Go to the next slide.	Page Down
Go to the previous slide.	Page Up
Go to the Home tab.	Alt+H
Move to the Insert tab.	Alt+N
Start the slide show.	Alt+S,B
End the slide show.	Esc
Close PowerPoint.	Alt+F, X

MS EXCEL 2016

Microsoft Excel is a spreadsheet developed by Microsoft. Spreadsheets allow you to keep track of data, create charts based from data, and perform complex calculations. Just like a book ledger, spreadsheets store information in columns and rows. You can have up to 256 columns and 65,536 rows per

worksheet.

Feature	Maximum limit
Worksheet size	1,048,576 rows by 16,384 columns
Column width	255 characters
Row height	409 points
Page breaks	1,026 horizontal and vertical
Total number of characters that a cell can contain	32,767 characters
Characters in a header or footer	255
Maximum number of line feeds per cell	253
Sheets in a workbook	Limited by available memory (default is 1 sheet)
Unique cell formats/cell styles	64,000
Unique font types	1,024 global fonts available for use; 512 per workbook
Hyperlinks in a worksheet	66,530 hyperlinks
Panes in a window	4
Zoom range	10 percent to 400 percent
Fields in a data form	32

Workbook and Worksheet

An Excel worksheet is a single spreadsheet that contains cells organized by rows and columns. A worksheet begins with row number 1 and column A. Each cell can contain a number, text or formula. Excel Workbook comprises number of worksheets. Many new sheets can be added to a workbook using adding worksheet command which is present at the bottom.

Formula and Function

Formulas enable you to enter calculations in a worksheet. Using Excel for calculations gives you the ability to change the data (or values) of the cells, and have the program automatically update the recalculate the value of the output based on the new numbers.

Here are some most frequently used functions in Excel:

Function	Description
SUM function	Use this function to add the values in cells.
IF function	Use this function to return one value if a condition is true and another value if it's false.
LOOKUP function	Use this function when you need to look in a single row or column and find a value from the same position in a second row or column.
MATCH function	Use this function to search for an item in a range of cells, and then return the relative position of that item in the range. For example, if the range A1:A3 contains the values 5, 7, and 38, then the formula =MATCH(7,A1:A3,0) returns the number 2, because 7 is the second item in the range.
CHOOSE function	Use this function to select one of up to 254 values based on the index number. For example, if value1 through value7 are the days of the week, CHOOSE returns one of the days when a number between 1 and 7 is used as index_num.
DATE function	Use this function to return the sequential serial number that represents a particular date. This function is most useful in situations where the year, month, and day are supplied by formulas or cell references. For example, you might have a worksheet that contains dates in a format that Excel does not recognize, such as YYYYMMDD. Use the DATEDIF function to calculate the number of days, months, or years between two dates.
DAYS function	Use this function to return the number of days between two dates.
FIND, FINDB functions	FIND and FINDB locate one text string within a second text string. They return the number of the starting position of the first text string from the first character of the second text string.

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Freeze Panes in Excel

If you wish to see a particular area of a worksheet visible or multiple rows and columns while you scroll to another area of the worksheet, you can use Freeze Panes (available under view tab).

Tabs in MS Excel 2016

The ribbon in Excel and other Office Suite's Application has Tabs. In Excel 2016 there are 8 tabs followed by a new feature of "Tell me what you want to do" arranged in a horizontal fashion. The tabs are as follows: File, Home, Insert, Page Layout, Formulas, Data, Review, and View.

Following are the groups of Commands available under tabs of Excel 2016:

Home: Clipboard, Font, Alignment, Number, Style (for Conditional Formatting of table), Cells (to insert, delete and format cells), Editing (AutoSum, Sort & Filter, Find & Select)

Insert: Tables (Pivot Table, and Tables); Illustrations (Pictures, Online Picture, shapes and Icon); Add-ins; Charts; Tours (3D Map); Sparklines (Line, Column, Win/Loss); Filters; Links; Text; Symbols

Page Layout: Themes; Page Setup (Margin, orientation, page size, print area, breaks, background and print titles); Scale to fit; Sheet Options (Gridline, headings); Arrange

Formulas: Insert Function; Function Library; Defined Names; Formula Auditing; Calculation

Data: Get external Data; Get & Transform (New query, show queries, from table, recent sources); Connections; Sort and Filter; Data Tools; Forecast (what-if analysis, forecast sheet); Outline

Review: Proofing (Spelling, Thesaurus); Accessibility; Insights-smart lookup; Comments; Changes (Protect sheet, protect workbook, share workbook, allow users to edit ranges, track changes)

View: Workbook Views (Normal, Page Break Preview, Page Layout, Custom Views); Show (gridlines, ruler, formula bar, headings); Zoom; Window; Macros

EXCEL 2016 SHORT CUT KEYS

Frequently used shortcuts Keys

To do this	Press
Close a spreadsheet	Ctrl+W
Open a spreadsheet	Ctrl+O
Go to the Home tab	Alt+H
Save a spreadsheet	Ctrl+S
Copy	Ctrl+C
Paste	Ctrl+V
Undo	Ctrl+Z
Remove cell contents	Delete key

Choose a fill color	Alt+H, H
Cut	Ctrl+X
Go to Insert tab	Alt+N
Bold	Ctrl+B
Center align cell contents	Alt+H, A, then C
Go to Page Layout tab	Alt+P
Go to Data tab	Alt+A
Go to View tab	Alt+W
Open context menu	Shift+F10, or Context key
Add borders	Alt+H, B
Delete column	Alt+H,D, then C
Go to Formula tab	Alt+M
Hide the selected rows	Ctrl+9
Hide the selected columns	Ctrl+0

Format in cells: keyboard shortcuts

To do this	Press
Move to the previous cell in a worksheet or the previous option in a dialog box.	Shift+Tab
Move one cell up in a worksheet.	Up Arrow key
Move one cell down in a worksheet.	Down Arrow key
Move one cell left in a worksheet.	Left Arrow key
Move one cell right in a worksheet.	Right Arrow key
Move to the edge of the current data region in a worksheet.	Ctrl+arrow key
Enter End mode, move to the next nonblank cell in the same column or row as the active cell, and turn off End mode. If the cells are blank, move to the last cell in the row or column.	End, arrow key
Move to the last cell on a worksheet, to the lowest used row of the rightmost used column.	Ctrl+End
Extend the selection of cells to the last used cell on the worksheet (lower-right corner).	Ctrl+Shift+End
Move to the cell in the upper-left corner of the window when Scroll Lock is turned on.	Home+Scroll Lock

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Move to the beginning of a worksheet.	Ctrl+Home
Move one screen down in a worksheet.	Page Down
Move to the next sheet in a workbook.	Ctrl+Page Down
Move one screen to the right in a worksheet.	Alt+Page Down
Move one screen up in a worksheet.	Page Up
Move one screen to the left in a worksheet.	Alt+Page Up
Move to the previous sheet in a workbook.	Ctrl+Page Up
Move one cell to the right in a worksheet. Or, in a protected worksheet, move between unlocked cells.	Tab

Format in cells: keyboard shortcuts

To do this	Press
Open the Format Cells dialog box.	Ctrl+1
Format fonts in the Format Cells dialog box.	Ctrl+Shift+F or Ctrl+Shift+P
Edit the active cell and put the insertion point at the end of its contents. Or, if editing is turned off for the cell, move the insertion point into the formula bar. If editing a formula, toggle Point mode off or on so you can use arrow keys to create a reference.	F2
Add or edit a cell comment.	Shift+F2
Open the Insert dialog to insert blank cells.	Ctrl+Shift+P lus (+)
Open the Delete dialog box to delete selected cells.	Ctrl+Minus (-)
Enter the current time.	Ctrl+Shift+c olon (:)
Enter the current date.	Ctrl+semi- colon (;)
Switch between displaying cell values or formulas in the worksheet.	Ctrl+grave accent (`)
Copy a formula from the cell above the active cell into the cell or the Formula Bar.	Ctrl+apostro phe (')
Move the selected cells.	Ctrl+X
Copy the selected cells.	Ctrl+C

To do this	Press
Paste content at the insertion point, replacing any selection.	Ctrl+V
Open the Paste Special dialog box.	Ctrl+Alt+V
Italicize text or remove italic formatting.	Ctrl+I or Ctrl+3
Bold text or remove bold formatting.	Ctrl+B or Ctrl+2
Underline text or remove underline.	Ctrl+U or Ctrl+4
Apply or remove strikethrough formatting.	Ctrl+5
Switch between hiding objects, displaying objects, and displaying placeholders for objects.	Ctrl+6
Apply an outline border to the selected cells.	Ctrl+Shift+a mpersand (&)
Remove the outline border from the selected cells.	Ctrl+Shift+u nderline (_)
Display or hide the outline symbols.	Ctrl+8

Work with data, functions, and the formula bar: keyboard shortcuts

To do this	Press
Select an entire PivotTable report.	Ctrl + Shift + asterisk (*)
Edit the active cell and put the insertion point at the end of its contents. Or, if editing is turned off for the cell, move the insertion point into the formula bar. If editing a formula, toggle Point mode off or on so you can use arrow keys to create a reference.	F2
Expand or collapse the formula bar.	Ctrl+Shift+U
Cancel an entry in the cell or Formula Bar.	Esc
Complete an entry in the formula bar and select the cell below.	Enter
Move the cursor to the end of the text when in the formula bar.	Ctrl+End
Select all text in the formula bar from the	Ctrl+Shift+End

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cursor position to the end.	
Calculate all worksheets in all open workbooks.	F9
Calculate the active worksheet.	Shift+F9
Display the Function Arguments dialog box when the insertion point is to the right of a function name in a formula.	Ctrl+A
Insert argument names and parentheses when the insertion point is to the right of a function name in a formula.	Ctrl+Shift+A
Invoke Flash Fill to automatically recognize patterns in adjacent columns and fill the current column	Ctrl+E
Cycle through all combinations of absolute and relative references in a formula if a cell reference or range is selected.	F4
Insert a function.	Shift+F3
Create a chart of the data in the current range in a separate Chart sheet.	F11
Define a name to use in references.	Alt+M, M, D
Paste a name from the Paste Name dialog box (if names have been defined in the workbook.	F3

Move to the first field in the next record of a data form.	Enter
Create, run, edit, or delete a macro.	Alt+F8

FILE EXTENSIONS:
Word

XML file type	Extension
Document	.docx
Macro-enabled document	.docm
Template	.dotx
Macro-enabled template	.dotm

Excel

XML file type	Extension
Workbook	.xlsx
Macro-enabled workbook	.xlsm
Template	.xltx
Macro-enabled template	.xltm
Non-XML binary workbook	.xlsb
Macro-enabled add-in	.xlam

PowerPoint

XML file type	Extension
Presentation	.pptx
Macro-enabled presentation	.pptm
Template	.potx
Macro-enabled template	.potm
Macro-enabled add-in	.ppam
Show	.ppsx
Macro-enabled show	.ppsm
Slide	.sldx
Macro-enabled slide	.sldm
Office theme	.thmx

Note-version of ms-word,excel,powerpoint 2016, replace with 2019 all content will be same

DATABASE MANAGEMENT SYSTEM

DBMS is the acronym of **Data Base Management System**. DBMS is a collection of interrelated data and a set of programs to access this data in a convenient and efficient way. It controls the organization, storage, retrieval, security and integrity of data in a database.

Types of Database Model: Network Database Model, Hierarchical Database model, Relational Database Model and Object-Oriented Database Model.

Architecture of DBMS-The generalized architecture of DBMS is called ANSI/ SPARC model. The architecture is divided into three levels:

- **External view or user view/View Level**- It is the highest level of data abstraction. This includes only those portions of database of concern to a user or Application program. Each user has a different external view and it is described by means of a scheme called external schema.
- **Conceptual view/Logical Level**- All the database entities and the relationship among them are included. One conceptual view represents the entire database called conceptual schema.
- **Internal view/Physical Level**- It is the lowest level of abstraction, closest to the physical storage method. It describes how the data is stored, what is the structure of data storage and the method of accessing these data. It is represented by internal schema.

Data model: A data model is a plan for building a database. The model represents data conceptually, the way the user

sees it, rather than how computers store it. Data models focus on required data elements and associations.

- Entity – Relationship Model
- Relational Model

Entity: A thing (animate or inanimate) of independent physical or conceptual existence and distinguishable. In the University database context, an individual student, faculty member, a class room, are entities.

Attributes: Each entity is described by a set of attributes/properties.

SQL (Structured Query Language) is a database computer language designed for the retrieval and management of data in relational database.

Constraints: In SQL, we have the following constraints- NOT NULL - Indicates that a column cannot store NULL value UNIQUE - Ensures that each row for a column must have a unique value

CHECK - Ensures that the value in a column meets a specific condition

DEFAULT - Specifies a default value for a column

Primary Key uniquely identifies a record in a table.

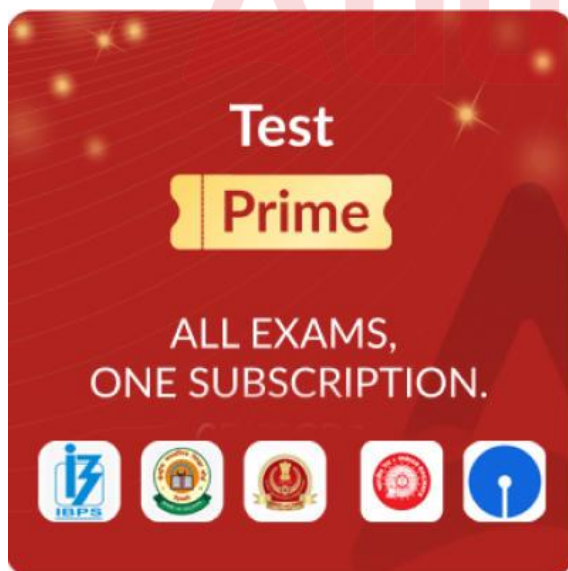
A **candidate key** is a single field or the least combination of fields that uniquely identifies each record in the table.

A **foreign key** is generally a primary key from one table that appears as a field in another.

DDL: Data Definition Language is used for specifying the database schema. It contains commands to create tables, alter the structure, delete tables or rename tables.

E.g. Create **DML**: Data Manipulation Language is used for accessing and manipulating data in a database. E.g. Select, Update

DCL: Data Control Language is used for granting and revoking user access on a database.



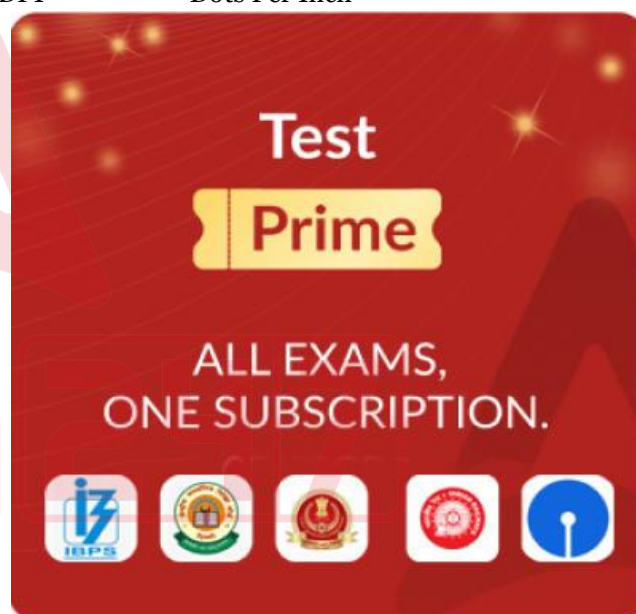
FULL FORMS & ABBREVIATIONS

TCP Transmission Control Protocol
FTP File Transfer Protocol

TFTP Trivial File Transfer Protocol
SFTP Secure File Transfer Protocol

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SMTP	Simple Mail Transfer Protocol	TFT	Thin Film Transistor
HTTP	Hyper Text Transfer Protocol	CRT	Cathode Ray Tube
HTTPS	Hyper Text Transfer Protocol Secure	MIDI	Musical Instrument Digital Interface
UDP	User Datagram Protocol	MPEG	Moving Picture Expert Group
ARP	Address Resolution Protocol	PDA	Personal Digital Assistants
Tel Net	Telecommunication Networking	PDF	Portable Document Format
POP3	Post Office Protocol Version3	ARPANET	Advanced Research Projects Agency
BGP	Border Gateway Protocol		Network
P2P	Point to Point Protocol	SQL	Structured Query Language
PPP	Peer to Peer Protocol	USB	Universal Serial Bus
IP	Internet Protocol	VIRUS	Vital Information Resource Under Siege
SNMP	Simple Network Management Protocol	VOIP	Voice Over Internet Protocol
NTP	Network Time Protocol	IVR	Interactive Voice Response
SIP	Session Initiation Protocol	WIFI	Wireless fidelity
DHCP	Dynamic Host Configuration Protocol	WIMAX	Worldwide Interoperability for Microwave
IMAP4	Internet Message Access Protocol Version		Access
	4	ADSL	Asymmetric Digital Subscriber Line
RARP	Reverse Address Resolution Protocol	API	Application Program Interface
SSH	Secure Shell	ARP	Address Resolution Protocol
MIME	Multipurpose Internet Mail Extension	RARP	Reverse ARP
SMIME	Secure MIME	ICANN	Internet Corporation of Assign Names &
ALGOL	Algorithmic Language		Numbers
ANSI	American National Standard Institute	DPI	Dots Per Inch
ATM	Asynchronous Transfer Mode		
AS	Autonomous System		
BASIC	Beginners All Purpose Symbolic		
	Instruction Code		
BIOS	Basic input Output System		
BPS	bit Per Second		
DNS	Domain Name Server		
EDI	Electronic Data Interchange		
URL	Uniform Resource Locator		
GIF	Graphics Interchange Format		
ASCII	American Standard Code for Information		
	Interchange		
ASP	Active Server Pages		
BCC	Blind Carbon Copy		
CC	Carbon copy		
CAD	Computer Aided Design		
CDMA	Code Division Multiple Access		
GSM	Global System for Mobile Communication		
CMOS	Complementary Metal Oxide Semi-		
	Conductor		
CMYK	Cyan Magenta Yellow Block	DSL	Digital Subscriber Line
GPS	Global Positioning System	FAT	File Allocation Table
GUI	Graphical User Interface	MANET	Mobile Ad-Hoc Network
HDMI	High Definition Multimedia Interface	MIPS	Million Instruction Per Second
GIGO	Garbage in Garbage Out	BIPS	Billion Instruction Per Second
LIFO	Last In First Out	TIPS	Trillion Instruction Per Second
FIFO	First In First Out	NAT	Network Address Translation
PING	Packet Internet Gopher	IEEE	Institute of Electrical and Electronic
HDD	Hard Disc Drive		Engineer
NIC	Network Interface Controller/Cord	IMAP	Internet Message Access Protocol
HDTV	High Definition Television	ISDN	Integrated Servers Digital Network
ISP	Internet Service Provider	ISO	International Standard Organization/
JPEG	Joint Picture Expert Group		International Org for Standardization
LCD	Liquid Crystal Display	DHTML	Dynamic Hyper Text Markup Language
LED	Light Emitting Diode	MAC	Media Access Control
CAN	Campus Area Network	PCB	Printer Circuit Board



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PAN	Personal Area Network	SRAM	Static RAM
SAN	Storage Area Network	DRAM	Dynamic RAM
CNM	Circulatory Network Mode	PROM	Programmable ROM
IPV4	Internet Protocol Version 4	EPROM	Electrically PROM
IPV6	Internet Protocol Version 6	EEPROM	Electrically Erasable PROM
DBMS	Data Base Management System	HDD	Hard Disc Drive
MODEM	Modulator Demodulator	FDD	Floppy Disc Drive
RAM	Random Access Memory	CD	Compact Disc
ROM	Read Only Memory	DVD	Digital Video/Versatile Disc
SMPS	Switch Mode Power Supply	BRD	Blu Ray Disc
OMR	Optical Mark Reader / Recognition	HVD	Holographic Versatile Disc
OCR	Optical Character Reader / Recognition	ACID	Atomicity Consistency Isolation Durability
BCR	Bar Code Reader	WYSIWYG	What you see is what you get
MICR	Magnetic Ink Character Reader / Recognition		

GLOSSARY

A

- **Access time** - The amount of time it takes for requested information to be delivered from disks and memory.
- **Antivirus software** - A program designed to look for and destroy viruses that may infect the memory of a computer or files stored on a computer.
- **Artificial intelligence (AI)** - Computer systems that attempt to imitate human processes for analyzing and solving problems.
- **Accumulator** - A local storage area called a Register, in which the result of an arithmetic or logic operation is formed.

B

- **BIT** - It is basic unit of computers. It has two values 1 & 0 only.
- **BYTE** - Combination of 8 Bits.
- **Basic Input Output System (BIOS)** - Also known as ROM BIOS. It provides an abstraction layer for the hardware, i.e., a consistent way for application programs and operating system to interact with input/output devices.
- **Bug** - A software bug is an error, flaw, failure, or fault in a computer program or system produces an incorrect or unexpected result.
- **Bus** - A pathway along which electronic signals travel between the components of a computer system.

C

- **Cookie** - A packet of information that travels between a browser and the web server.
- **Crash** - Your computer or application no longer works correctly and so you "lose" all the work you've done since the last time you saved.
- **Command** - An instruction that causes a program or computer to perform a function.
- **Cache** - It is a memory storage area that keeps frequent use data readily available to the computer so that the computer does not retrieve them from slow storage devices.
- **Clock Speed** - The speed of computer is measured in clock speed. High clock speed is synonymous with high processing capability. It is measured in Megahertz (MHz).

- **Column** - A vertical block of cells in a table or spreadsheet.

D

- **Delete** - To remove an item of data from a file or to remove a file from the disk.
- **Debugging** - Locating and eliminating defects in a program.
- **Desktop** - The electronic work area on a display screen.
- **Dots Per Inch (DPI)** - It is defined as the measure of the resolution of a printer and scanner, or monitor.
- **Domain Name** - A unique name that identifies a particular website and represents the name of the server where the web pages reside.

E

- **Edit** - To make certain changes in existing data.
- **Ethernet Card** - A network adapter that enables a computer to connect to an Ethernet.

F

- **Fax** - A shortened form of the word facsimile. A copy of a document transmitted electronically from one machine to another.
- **File transfer protocol (FTP)** - A set of guidelines or standards that establish the format in which files can be transmitted from one computer to another.
- **Firewall** - A security system usually consisting of hardware and software that prevents unauthorized persons from accessing certain parts of a program, database, or network.
- **Flash Memory** - It is a type of non-volatile computer storage chip that can be electrically erased and reprogrammed. It was developed by EEPROM.

G

- **Gateway** - A machine that links two networks using different protocols.
- **Gigabyte** - A measurement of the storage capacity of a device. One gigabyte represents 1024 megabytes.
- **Google** - search engine on the web.
- **Gopher** - A protocol used for locating and transferring information on the internet. It is an internet search tool that allows users to access textual information.

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- **GUI** - Graphical User Interface uses icons and menus to carry out commands such as opening files, delete files, move files etc..
- **Graphic Interchange Format (GIF)** - A simple file format for pictures and photographs that are compressed so that they can be sent quickly.

H

- **Hard copy** - Text or graphics printed on paper; also called a printout.
- **Hard disk** - A rigid type of magnetic medium that can store large amounts of information.
- **Hyperlink** - An image or portion of text on a webpage which is linked to another webpage.
- **Hub** - A network device that connects multiple computers on a LAN so that they can communicate with another network and the internet.
- **Header** - Repetitive information that appears at the top (the head) of every page of a document.
- **Hypertext transfer protocol (HTTP)** - The protocol used on the World Wide Web that permits Web clients (Web browsers) to communicate with Web servers

I

- **Icons** - In a graphical user interface (GUI), a small, pictorial, on screen representation of an object, such as a document, program, folder or disk drive.
- **Instant messaging (IM)** - A chat program that lets people communicate over the Internet in real time.
- **Internet protocol (IP) address** - A unique set of numbers that identifies a computer over a network.
- **Internet service provider (ISP)** - An organization that provides access to the Internet for a fee.
- **Intranet** - A private network established by an organization for the exclusive use of its employees. Firewalls prevent outsiders from gaining access to an organization's intranet

J

- **JPEG** - Joint Photographic Experts Group. A format for storing complex graphics in compressed form.
- **Justification** - Aligning lines of text at the left margin, the right margin, both margins, and the centre. Text aligned at both margins is considered fully justified.

K

- **Keyboard** - The device used to enter information into a computer.
- **Kilobyte** - A measurement of the storage capacity of a device. One kilobyte represents 1024 bytes.

L

- **LAN** - A local area network (LAN) is a computer network that interconnects computers within a limited area such as a home, school, computer laboratory, or office building, using network media.
- **Laptop computer** - A portable computer. Also known as a notebook computer.
- **Landscape Orientation** - The positioning of the page so that the information is printed across the long dimension of the page.
- **Liveware** - It is a term to describe the human system, opposed to hardware or software in a computer.

M

- **Macro virus** - A type of virus that attaches itself to documents or word processing templates.

- **Malware** - Software that disrupts normal computer functions or sends a user's personal data without the user's authorization.
- **Memory** - The part of a computer that stores information.
- **Memory Cell** - A circuit in memory that represents a single bit of information.
- **Mass Storage** - Storage systems that provide access to hundreds of billions of bytes of stored data. They are often referred to as Archival Storage because of the very large volumes of historical or backup data they can store.
- **MIPS** - An acronym derived from millions of instructions per second. Used to measure the speed of a processor.
- **Morphing** - The transformation of one image into another image.
- **Mobile Commerce (m-Commerce)** - A form of e-commerce that has the ability to conduct monetary transactions via a mobile device such as a cell phone.
- **Mozilla** - a web browser and successor to Netscape Communicator.
- **Multitasking** - The ability of a computer to execute more than one program at a time.

N

- **NIBBLE** - Combination of four bits.
- **Network** - A system of interconnected computers. They are of three types i. e. LAN, MAN, WAN.
- **Network Interface Card (NIC)** - This is a part of the computer that allows it to talk to other computers via a network protocol like TCP/IP.
- **Node** - A computer which is attached to the network. Each node has its own address on the network so that it can be uniquely identified and can communicate with other nodes on the same or different network.

O

- **Offline** - Refers to the state in which a computer is temporarily or permanently unable to communicate with another computer.
- **Online** - Refers to the state in which a computer is ready to communicate with other computers.
- **Open source software** - Software that makes the underlying source code available to all users at no charge.
- **Operating system (OS)** - Software that manages the internal functions and controls the operations of a computer.

P

- **Palmtop computer** - A portable computer smaller than a notebook (or laptop) computer that fits on the palm of your hand. Also called a handheld computer.
- **Password** - A user's secret identification code, required to access stored material. A procedure intended to prevent information from being accessed by unauthorized persons.
- **Piracy** - The illegal copying of software or other creative works.
- **Peripherals** - A connectable device that has an auxiliary function outside the permanent system configuration such as plotters, printers and graphic displays.
- **Phishing** - A type of computer fraud that tries to trick users into revealing their passwords and other confidential information.

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- **Pixel** - A smallest picture element of a digital image. The smaller the pixels, the higher the resolution.
- **Port** - An electrical connection on the computer into which a cable can be plugged so that the computer can communicate with other devices such as printer or modem.
- **Protocol** - A set of rules and regulations that coordinates the exchange of information over the network.
- **Portrait orientation** - Positioning paper so that information is printed across the short dimension of the paper.

Q

- **Query** - An alternate pipe form of operating system, which handles data in the form of messages rather than bytes.
- **Qwerty** - It is one of the standard computer keyboard, with the character Q, W, E, R, T, Y on the top row of letters on the keyboard.

R

- **Response time** - The time a computer takes to execute a command.
- **Retrieve** - To call up information from memory or storage so that it can be processed in some way.
- **Record** - A collection of all the information pertaining to a particular subject.
- **Row** - A horizontal block of cells in a table or spreadsheet.
- **Resolution** - Measurement of the degree of sharpness of a displayed image. It is defined as number of pixels per square inch on a computer generated display.
- **Register** - A temporary storage unit for quick, direct accessibility of a small amount of data for processing.

S

- **Save As** - Give the file a name and/or store the file in a certain place.
- **Save** - Tell the computer to create a file on disk that has the information you've put into the document.
- **Scroll bar** - Allows you to move around through your document.
- **Shut down** - To quit all applications and turn off the computer.
- **Spam** - unwanted repetitious messages, such as unsolicited bulk e-mail.
- **Scanner** - An input device that can copy a printed page into a computer's memory, thus doing away with the need to type the copy.
- **Screen saver** - A program that changes the screen display while the user is away from the computer.
- **Server** - A computer that manages a shared resource and provides a set of shared user services to the clients.
- **Search Engine** - Software that searches, gathers and identifies information from a database based on an index, keywords or titles.
- **Spam** - Unwanted repetitious messages, such as unsolicited bulk e-mail.
- **Soft copy** - Information shown on the display screen.
- **Sort** - To arrange fields, records, or files in a

predetermined sequence.

- **Surfing the Net** - Browsing through various Web sites on the Internet in search of interesting things.

T

- **Trash** - Place where you put files and folders that you want to delete or get rid of.
- **Topology** - The structure of the network, including physical connections such as wiring schemes and logical interactions between network devices.
- **Track** - A ring on a disk where data can be written.
- **Telnet** - A protocol for remote computing on the internet that allows a computer to act as a remote terminal on another machine, anywhere on the internet.
- **Touchpad** - The device on a laptop computer that takes the place of a mouse.
- **Touch screen technology** - The technology that permits a user to perform a function simply by touching the screen on an appropriate spot.

U

- **Uninterrupted Power Supply (UPS)** - A Battery powered backup system that provides enough electricity to a computer during a power outage so that a user can save files before shutting down the computer.
- **Universal Serial Bus (USB)** - A common standard for connecting multiple peripherals to a computer as needed.
- **Upload** - To transfer information from a client computer to a host computer.

V

- **Virus** - A piece of computer code designed as a prank or malicious act to spread from one computer to another by attaching itself to other programs.

W

- **WAP** - Wireless Application Protocol is a specification for a set of communication protocol used to allow wireless devices to access the internet and other utilities.
- **Web browser** - Software that permits a user with a click of a mouse to locate, display, and download text, video, audio, and graphics stored in a host computer on the Web. The most common Web browsers now in use are Internet Explorer, Google Chrome and Mozilla Firefox.
- **Web site** - One or more related pages created by an individual or an organization and posted on the World Wide Web.
- **Wi-Fi (Wireless fidelity)** - A process that permits high-speed wireless transmission of data.
- **Word processing** - The electronic process of creating, formatting, editing, proofreading, and printing documents.
- **Workstation** - A desktop computer that runs applications and serves as an access point in a local area network.

Z

- **Zombie** - A computer that has been hijacked by a cracker without the owner's knowledge and used to perform malicious tasks on the Internet.

PROGRAMMING LANGUAGE

PROGRAMMING LANGUAGE

Programming Language are coded language are coded language used by programmer to write instructions that a computer can understand to what the Programmer want.

Following are the major categories of Programming Languages –

- Machine Language
- Assembly Language
- High Level Language
- System Language
- Scripting Language

Pseudo code -

Pseudo code is a simple way of writing programing code in english.

For example – Task – Add two Numbers ---

- Start
- Get two numbers
- Add them
- Print the answer
- End

Flow chart

A flow chart is a graphical or symbolic representation of a process. Each step in the process is represented by a different symbol and contains a short description of the process step.

Different flow chart symbols have different meanings. The most common flow chart symbols are:

- Terminator: An oval flow chart shape indicating the start or end of the process.
- Process: A rectangular flow chart shape indicating a normal process flow step.
- Decision: A diamond flow chart shape indication a branch in the process flow.
- Connector: A small, labeled, circular flow chart shape used to indicate a jump in the process flow. (Shown as the circle with the letter "A", below.)
- Data: A parallelogram that indicates data input or output (I/O) for a process.

- Document: Used to indicate a document or report (see image in sample flow chart below).

What is Algorithm

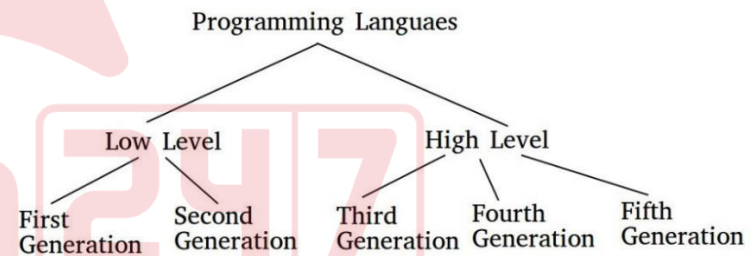
An algorithm is a well-defined procedure that allows a computer to solve a problem. Another way to describe an algorithm is a sequence of unambiguous instructions. ... In fact, it is difficult to think of a task performed by your computer that does not use algorithms.

Sequence of program -

- Algorithm
- Flowchart
- Program (source code)
- Compiling
- Object code

What is syntax - way to write any instruction in any programming language with the help of some special symbols and character.

Types of Programming Language



• Machine language

Machine language is written in binary language. It is consists of 0s and 1s. Machine language is dependent programming language. It is first generation programming language. It does not require translator. Machine Language is easy to understand for computer but difficult to programmer. The program is written in machine is called object code.

It has two part –

Opcode – Operation code – an opcode is a single instruction that can be executed by the CPU.

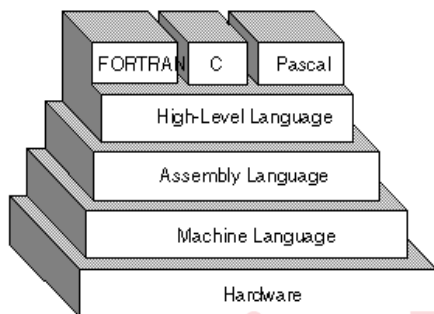
Operand (address part) – operands are manipulated by opcode

• **Assembly Language -**

Assembly language used mnemonic code in place of binary language. It is second generation programming language. An assembly language is a low-level programming language designed for a specific type of processor. Assembly languages generally lack high-level conveniences such as variables and functions.

• **High level Language -**

A high-level language (HLL) is a programming language such as C, FORTRAN, or Pascal that enables a programmer to write programs that are more or less independent of a particular type of computer. It is independent programming language. It is third Generation programming language. The program is written in high level is called source code. FORTAIN was first high level language.



➤ **FORTAN**

Full form Formula Translation. It was first high-level language. It was introduced by John Backus in 1957. It is used for scientist and engineers.

➤ **ALGOL**

ALGOL is short for algorithmic language. It is an early high-level computer programming language devised to carry out scientific calculations. ALGOL was used as the standard method for creating algorithms. First appeared in 1958. ALGOL language designed by: Friedrich L. Bauer, Hermann Bottenbruch

➤ **COBOL**

The name COBOL stands for Common Business-Oriented Language. COBOL is a programming language that was developed in the year 1959. It was one of the first computer programming languages used for commercial. It was introduced by Grace

Hopper.

➤ **BASIC(Beginner's All-purpose Symbolic Instruction Code)**

BASIC. Stands for "Beginner's All-purpose Symbolic Instruction Code". BASIC is a computer programming language that was developed in the mid-1960s to provide a way for students to write simple computer programs. In 1964, John G. Kemeny and Thomas E. Kurtz designed the original BASIC language at Dartmouth College.

➤ **Pascal**

Pascal is an imperative and procedural programming language, designed by Niklaus Wirth as Apollo Computer used Pascal as the systems programming language for its operating systems beginning in 1980. It is named in honor of the French mathematician, philosopher and physicist Blaise Pascal.

➤ **C Language**

C is a general-purpose, procedural computer programming language supporting structured programming, lexical variable scope, and recursion, while a static type system prevents unintended operations. C was developed at Bell Labs by Dennis Ritchie for the Unix Operating System in the early 1970s. It is also called middle level language.

➤ **C++ Language**

C++ is a High-level programming language developed by Bjarne Stroustrup starting in 1979 at Bell Labs. C++ runs on a variety of platforms, such as Windows, Mac OS, and the various versions of UNIX. This C++ tutorial adopts a simple and practical approach to describe the concepts of C++ for beginners to advanced software engineers. C++ fully supports object-oriented programming, including the four pillars of object-oriented development.

➤ **JAVA**

Java is a programming language and a platform. Java is a high level, robust, object-oriented and secure programming language. Java is introduced by James Gosling. Java is used many application like

1. Desktop Applications such as acrobat

reader, media player, antivirus, etc.

2. Web Applications such as irctc.co.in, javatpoint.com, etc.
3. Enterprise Applications such as banking applications.
4. Mobile
5. Embedded System
6. Smart Card
7. Robotics
8. Games, etc.

➤ **PERL(Practical Extraction and Reporting Language)**

Perl is a general-purpose programming language originally developed for text manipulation and now used for a wide range of tasks including system administration, web development, network programming, GUI development, and more. Perl was originally developed by Larry Wall in 1987. Stand for "Practical Extraction and Reporting Language"

➤ **Python**

Python is a general purpose and high level programming language. You can use Python for developing desktop GUI applications, websites and web applications. It is introduced by Guido van Rossum.

➤ **C# Language**

C# can be used to create almost anything but is particularly strong at building Windows desktop applications and games. C# can also be used to develop web applications and has become increasingly popular for mobile development too. It is developed by Microsoft. C# is an object-oriented programming language used with XML-based Web services on the .NET platform and designed for improving productivity in the development of Web applications.

Scripting Language

Scripting languages are server-side scripting languages that manipulate the data, usually in a

database, on the server. Scripting languages came about largely because of the development of the Internet as a communications tool.

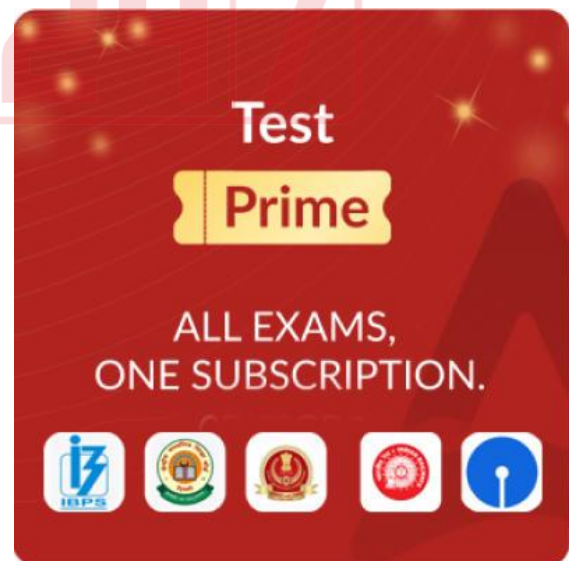
Html, Xml, JavaScript, ASP, JSP, PHP, Perl, Tcl and Python are examples of scripting languages.

Language Translator -

Language translator is a program which is used to translate instructions that are written in the source code to object code i.e. from high-level language or assembly language into machine language.

There are 3 different types of translators as

1. **Assembler-** Assembler are used to convert assembly language code into machine code. Assembler convert mnemonic code in to object code.
2. **Compiler-** Compiler translate high level language in machine language. It read the entire program. It finds the syntax error. Error in a program is called bug. Compiler convert source code into object code.
3. **Interpreter-** An interpreter translates high-level instructions into an intermediate form, which it then executes. It reads the program line by line. In contrast, a compiler translates high-level instructions directly into machine language. Compiled programs generally run faster than interpreted programs.



Important Questions Based on Microsoft Office:

1. Microsoft Office is a _____.
A) Shareware B) Public-domain software
C) Open source software D) An application suit
E) Firmware
2. Which term is not related with font?
A) Font face B) Font size C) Font color
D) Font grammar E) None of these
3. The valid format of MS Word is _____.
A) .jpeg B) .png C) .doc
D) .exe E) None of these
4. Which of the following option may be used to change page-size and margins?
A) Page Layout B) View C) Tools
D) Data E) None of these
5. To justify the selected text, the shortcut key is _____.
A) Ctrl + I B) Ctrl + J C) Ctrl + U
D) Ctrl + Alt + K E) None of these
6. Workbook is a collection of _____ in MS Excel?
A) page set-up B) buttons C) diagrams
D) charts E) worksheets
7. In order to move from one worksheet to another in MS-Excel workbook. One should click _____.
A) active cell B) scroll bar C) sheet tab
D) tab button E) None of these
8. In a spreadsheet, a _____ is a number you will use in a calculation.
A) label B) cell C) field
D) value E) None of these
9. In Power Point, which of the following will not advance the slides in a slide show view?
A) Esc key B) The spacebar
C) The Enter key D) The mouse button
E) None of these
10. In Microsoft PowerPoint, two kinds of sound effects files that can be added to the presentation are
A) .wav files and .mid files
B) wav files and .gif files C) wav files and .jpg files
D) jpg files and .gif files E) None of these
11. Which PowerPoint view displays each slide of the presentation as a thumbnail and is useful for rearranging slides?
A) Slide Sorter B) Slide Show C) Slide Master
D) Notes Page E) Slide Design
12. If you want to insert a chart to your slide then go to _____.
A) Insert – Chart B) Home – Chart C) Format – Chart
D) Table – Chart E) None of these
13. Which of the following is not a type of Microsoft access database object?
A) Table B) Worksheets C) Modules
D) Macros E) None of these
14. Row in an Access table is also known as _____.
A) field B) record C) data
D) type E) None of these
15. Queries in Access can be used as _____.
A) View, change and analyse data in different ways
B) A source of records for forms and reports
C) to access internet D) Both a and b
E) None of these
16. Pressing F8 key for three times selects
A) A word B) A sentence C) A paragraph
D) Entire document E) None of these
17. What happens if you press Ctrl + Shift + F8?
A) It activates extended selection
B) It activates the rectangular selection
C) It selects the paragraph on which the insertion line is.
D) Both (A) and (C) E) None of these
18. How can you disable extended selection mode?
A) Press F8 again to disable
B) Press Del to disable C) Press Esc to disable
D) Press Enter to disable E) It cannot be disabled
19. What does EXT indicator on status bar of MS Word indicate?
A) It indicates whether the external text is pasted on document or not
B) It indicates whether extended add-ons are installed on MS Word or not
C) It indicates whether Extended Selection mode is turned on or off
D) Both (A) and (B) E) None of these
20. What is the maximum number of lines you can set for a drop cap?
A) 3 B) 10 C) 15
D) 20 E) 50
21. What is the default number of lines to drop for drop cap?
A) 3 B) 10 C) 15
D) 20 E) 7
22. What is the shortcut key you can press to create a copyright symbol?
A) Alt+Ctrl+C B) Alt + C C) Ctrl + C
D) Ctrl + Shift + C E) None of these
23. How many columns can you insert in a word document in maximum?
A) 35 B) 63 C) 55
D) 65 E) 60
24. What is the smallest and largest font size available in Font Size tool on formatting toolbar?
A) 8 and 72 B) 8 and 64 C) 12 and 72
D) 10 and 40 E) None of these
25. Select all the text in MS Word document by:
A) Ctrl + S B) Ctrl + I C) Shift + A
D) Ctrl + A E) None of these
26. MS Word is _____ software.
A) System B) Application C) Programming
D) Compiler E) None of these
27. The shortcut key for paste selected text/picture in MS Word is _____.
A) Ctrl + X B) Ctrl + C C) Ctrl + V
D) Ctrl + Z E) None of these

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28. Using Print Preview is useful. When you want to
A) colour the document B) save the document
C) delete the document D) copy the document
E) view how the document will appear when printed
29. To indent the first paragraph of your report, you should use this key.
A) Space bar B) Return key C) Tab key
D) Shift key E) None of these
30. In Excel, the contents of the active cell are displayed in the _____.
A) footer bar B) tool bar C) task bar
D) menu bar E) formula bar
31. _____ appear at the bottom of the Excel Window.
A) Worksheet tabs B) Name box C) Formula bar
D) Title bar E) None of these
- 32.
33. In MS excel _____ are numbered from 1 to onwards and _____ are numbered from A to onwards.
A) Columns, rows B) Rows, slides C) Slides, rows
D) Rows, columns E) None of these
34. What is the default column width of MS Excel?
A) 5.5 B) 2.98 C) 8.43
D) 6.49 E) None of these
35. To insert a new slide go to _____ tab, in the Slides group, click New Slide.
A) Home B) View C) Animations
D) Slide show E) None of these
36. Times new Roman, Cambria, Arial are the example of _____.
A) Font face B) Themes C) SmartArt
D) Clipart E) None of these
37. In Access a _____ is the collection of data items of all the fields pertaining to one entity.
A) field B) record C) form
D) report E) None of these
38. A table of how many columns can you insert in a word document in maximum.
A) 55 B) 42 C) 32
D) 63 E) As you wish
39. In MS Access a _____ name must be unique within a database.
A) Field B) Record C) Table
D) Character E) None of these
40. The minimum number of rows and columns in MS Word document is
A) 1 and 1 B) 2 and 1 C) 2 and 2
D) 3 and 3 E) None of these
41. Thesaurus tool in MS Word is used for
A) Spelling suggestions B) Grammar options
C) Synonyms and Antonyms words
D) All of the above E) None of these
42. Why Drop Caps are used in document?
A) To drop all the capital letters
B) To automatically begin each paragraph with capital letter

- C) To begin a paragraph with a large dropped initial capital letter
D) To drop the numbers
E) None of these
43. A bookmark is an item or location in document that you identify as a name for future reference. Which of the following task is accomplished by using bookmarks?
A) To add anchors in web page
B) To mark the ending of a paragraph of document
C) To quickly jump to specific location in document
D) To add hyperlinks in webpage
E) None of these
44. A word processor would most likely be used to do
A) Keep an account of money spent
B) Do a computer search in media center
C) Maintain an inventory
D) Type a biography
E) Maintain records of database
45. Which of the following is not valid version of MS Office?
A) Office XP B) Office Vista C) Office 2007
D) Office 2010 E) None of these
46. You cannot close MS Word application by
A) Choosing File menu then Exit submenu
B) Press Alt+F4
C) Click X button on titlebar
D) From File menu choose Close submenu
E) None of these
47. The key F12 in MS Word opens a
A) Save As dialog box B) Open dialog box
C) Save dialog box D) Close dialog box
E) Opens help menu
48. What is the short cut key to open the Open dialog box?
A) F12 B) Shift F12 C) Alt + F1
D) Ctrl + F12 E) None of these

Adda247

WINNERS

FOR MAINS

FOR IBPS RRB PO 2025



Starts: 1 Dec, 2025 | 10 am - 7 pm

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46. Which of the following symbol sets would be most likely to contain a mathematical symbol such as a degree sign, greater than or equal to, or a Greek letter?

- A) Wingdings B) Wingdings 3 C) Webdings
D) Symbol E) Arial

47. When assigning a shortcut key to a symbol, you should always try to select a key or key combination that is:

- A) Regret
B) Subdual

C) We regret to inform you that your submission has been declined

- D) 11 E) None of these

49. If you want to convert a symbol or several lines of text into an AutoCorrect entry, you should:

A) Insert the symbol or type the text in a Word document first. Then, select the text or symbol and go to the AutoCorrect dialog box.

B) Click the Tools menu and choose AutoCorrect Options. Then, click the Insert menu and choose Symbol (or click the Format menu and choose Paragraph) to add the symbol or paragraph to AutoCorrect.

C) AutoCorrect can only accommodate one line of text. It is not possible to convert a symbol or multiple lines of text into an AutoCorrect entry.

D) Insert the symbol or type the text in a Word document first. Then, select the text or symbol and click the Edit menu followed by Paste Special. Select New AutoCorrect Entry and then click OK.

E) None of the above

50. AutoCorrect was originally designed to replace _____ words as you type.

- A) Short, repetitive B) Grammatically incorrect
C) Misspelled words D) Incorrect Image
E) None of the above

51. Which of the following is the second step in creating a macro?

- A) Start recording
B) Using your mouse or keyboard, perform the task you want to automate
C) Assign a keyboard shortcut to the macro
D) Give the macro a name
E) None of these

52. If you will be displaying or printing your document on another computer, you'll want to make sure and select the _____ option under the 'Save' tab.

- A) Embed Fonts B) Embed True Type Fonts
C) Save True Type Fonts D) Save Fonts
E) Font Face

53. In Word, the mailing list is known as the _____.

- A) Data sheet B) Source C) Datasource

- D) Sheet E) Hyperlink

54. To delete 3-D rotation from the shape, point to 3-D Rotation, and then click _____.

- A) Non Rotation B) Not Rotation C) None Rotation
D) No Rotation E) None of these

A) Unassigned

55.

56. In Microsoft Office Power-Point 2007, a

_____ is a

B) Located on the ten-key pad section of your keyboard.

C) Assigned to another task.

D) From the same font family as the symbol.

E) None of these

48. Suppose you wanted to create an AutoCorrect entry that would type the words 'We regret to inform you that your submission has been declined' of the following choices, which would be the best name you could assign to this entry?

connection from one slide to another slide in the same presentation or to a slide in another presentation, an e-mail address, a Web page, or a file.

- A) Hyphenation B) Header C) Footer
D) Hyperlink E) None of these

56. In PowerPoint, which of the following is the default page setup orientation for notes pages, outlines and handouts?

- A) Vertical B) Landscape C) Portrait
D) All of these E) None of these

57. In slide layout panel, how many layouts are available for next layout by default?

- A) 4 B) 7 C) 12
D) 15 E) None of these

58. In Access, this operation copies a backup file from the storage medium back onto the computer:

- A) Restore B) Recreate C) Copy
D) Structure E) None of these

59. In the Form Wizard dialog box, the fields from the selected table are displayed in which list box?

- A) All fields B) All Records
C) Available Records D) Available Fields
E) None of these

60. Which control does access use to link data access page components to access data?

- A) Microsoft Office Data Source Control
B) Microsoft Dynamic Data Control
C) Microsoft Data Connection Control
D) Microsoft Default Connection Control
None of the above

Miscellaneous Questions on Computer Knowledge

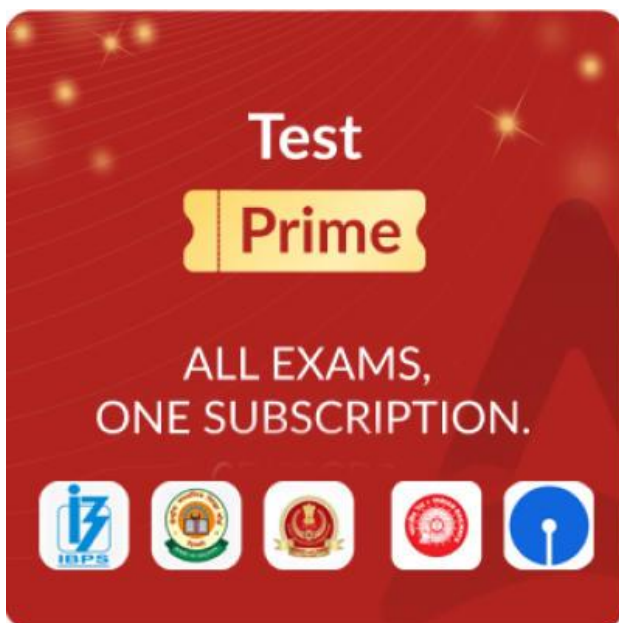
1. CD-ROM is a ____?
(a) Semiconductor memory (b) Memory registers
(c) Magnetic memory (d) Cache Memory
(e) None of the above
2. Actual execution of instructions in a computer takes place in?
(a) ALU (b) Control Unit (c) Storage unit
(d) Control bus (e) None of the above
3. Modem stands for ____.
(a) A type of secondary memory
(b) Modulator demodulator
(c) Mainframe operating device memory
(d) Multiprocessing device
(e) None of the above
4. ____ Controls access to the resources on a network.
(a) Server (b) Client
(c) Both ((a) and (b) (d) Memory
(e) None of the above
5. The wider the bus, the ____ the transfer of data
(a) Greater the number of transfer steps required and the slower
(b) Greater the number of transfer steps required and the faster
(c) Fewer the number of transfer steps required and the slower
(d) Fewer the number of transfer steps required and the faster
(e) None of the above
6. What does 'GIF' Stand for?
(a) Graphics Interchange Format
(b) Geo Interchange Format
(c) Graphical Interconnection Format
(d) Graphics Interlace Format
(e) Graphics Interchange File
7. Cache and main memory will lose their contents when the power is off. They are ____.
(a) dynamic (b) static (c) volatile
(d) non-volatile (e) faulty
8. How can the user determine what programs are available on a computer?
(a) Checking the hard disk properties
(b) Viewing the installed programs during the booting process
(c) Checking the operating system for a list of installed programs
(d) Checking the existing files saved on the disk
(e) None of these
9. Processing involves ____.
(a) inputting data into a computer system
(b) transforming input into output
(c) displaying output in a useful manner
(d) providing relevant answers
(e) None of these
10. Which process checks to ensure the components of the computer are operating and connected properly?
(a) Booting (b) Processing (c) Saving
(d) Editing (e) None of these
11. What kind of programming language is Java?
(a) Object-oriented programming language
(b) Relational programming language
(c) Sixth-generation programming language
(d) Database management programming language
(e) None of these
12. Formatting a disk results in all the data being?
(a) Saved to the disk (b) Copied from the disk
(c) Deleted from the disk
(d) All of the above (e) None of the above
13. What type of web technology creates an online community where people can make statements and others can read and respond to those statements?
(a) I-Journal (b) Podcast (c) ASP
(d) Blog (e) None of these
14. What is a common medium used for thieves to steal others' identities?
(a) Telephone (b) Pick pocketing
(c) Burglary (d) Email
(e) None of the above
15. Application software?
(a) Is used to control the operating system
(b) Is designed to help programmers
(c) Performs specific task for computer users
(d) Is used for making design only
(e) All of the above
16. A set of instruction telling the computer what to do is called?
(a) Mentor (b) instructor (c) compiler
(d) program (e) debugger
17. A ____ is anything that can cause harm.
(a) vulnerability (b) redundancy (c) Spam
(d) threat (e) None of the above
18. A ____ is a small program embedded inside of a GIF image.
(a) web bug (b) cookie (c) spyware application
(d) spam (e) None of the above
19. When you save an Microsoft Access project, what file format do you use?
(a) .adp (b) .Xml (c) .mbd
(d) All of these (e) None of the above
21. To select a column the easiest method is to?
(a) double click any cell in the column
(b) drag from the top cell in the column to the last cell in the column
(c) click the column heading
(d) click the row heading
(e) None of the above
22. 30,000 bytes is equal to
(a) 30KB (b) 3 MB (c) 3 GB
(d) 3 TB (e) None of these
23. Terminal is a:
(a) device to give power supply to computer
(b) Point at which data enters or leaves the computer
(c) The last instruction in a program
(d) any input /output device
(e) None of these

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24. Which part of a computer cannot be touched?
(a) Mouse (b) Monitor (c) Hardware
(d) Software (e) None of these
25. Manipulation of data in computer is called
(a) Boot (b) Processing (c) Simplification
(d) Format (e) Clean disk
26. Which computer bus connects the main memory to the memory controller in computer systems?
(a) Data Bus (b) Memory Bus
(c) I/O Bus (d) Both (b) and (c)
(e) None of these
27. _____ and _____ are the two types of computer memory.
(a) RAM and CPU (b) ROM and CPU
(c) RAM and ROM (d) RAM and BIOS
(e) BIOS and ROM
28. What is the full form of CRT?
(a) Cathode Ray Tube
(b) Computer Resolution and Transparency
(c) Cathode Resolution and Transparency
(d) Computer RAM Trash
(e) None of these
29. Which among the following is not hardware?
(a) Motherboard (b) Operating system
(c) CPU (d) Keyboard
(e) Hard disk drive
30. Which of the following is software?
(a) _____
(b) Motherboard (b) CPU
(c) Microsoft Windows
(d) RAM (e) All of these
31. In computing, a _____ is a directive to a computer program order to perform a specific task.
(a) Hard boot (b) Hibernation (c) Command
(d) Warm boot (e) Format
32. Which of the following is/are modifier keys in a computer?
(a) Ctrl (b) Alt (c) Shift
(d) Both 2 and 3 (e) All of the above
33. Which among the following is associated with Internet Mail?
(a) Inbox (b) Server (c) Trash
(d) Drop Box (e) One Drive
34. What is a cursor?
(a) It is an indicator
(b) It shows the position on a computer monitor
(c) Cursor is Latin for 'runner'.
(d) Both 1 and 2
(e) All of the above
35. Which among the following is not legitimate type of computer virus?
(a) Boot Virus (b) File infector Virus
(c) Resident Virus (d) Hangout Virus
(e) Macro Virus
36. 30,000 bytes is equal to
(a) 30 KB (b) 3 MB (c) 3 GB
(d) 3 TB (e) None of these
37. The main folder on a storage device is called
(a) Platform (b) Interface (c) Root Directory
(d) Device Driver (e) None of these
38. ISDN stands for
(a) Integral Service Dynamic Network
(b) International Subscriber Dialup Network
(c) International Service Digital Network
(d) Integrated Service Digital Network
(e) None of these
39. Which technology is used by cell phones to access the internet?
(a) Cloud computing (b) Neural Networks
(c) XML language (d) micro browser software
(e) None of the above
40. Which of the following scrambles a message by applying a secret code?
(a) Audits (b) Encryption (c) UPS
(d) Firewalls (e) Encapsulation
41. What type of monitoring file is commonly used on and accepted from Internet sites?
(a) Smartware (b) Phishes (c) Cookies
(d) Trojans (e) None of the above
42. The software that secretly collects information about the web client's internet habits?
(a) Detectware (b) Spam (c) Spyware
(d) Pharming (e) All of the above
43. Which register is used as a working area in CPU?
(a) Program counter (b) Instruction registers
(c) Instruction decoder
(d) Parity generator (e) Accumulator
44. Which of the following is the valid subnet mask for class B IP Address?
(a) 251.254.25.5 (b) 255.255.0.0
(c) 155.151.12.9 (d) 255.0.0.0
(e) 255.255.255.0
45. Repeaters function in which layer?
(a) Physical layer (b) Data link layer
(c) Network layer (d) Both (a) and (b)
(e) Session layer
46. Name the input device from the given options, that cannot be used to work in MS Office?
(a) Scanner (b) Mouse (c) Keyboard
(d) Joystick (e) All of the above
47. Select the odd one out:
(a) Interpreter (b) operating system
(c) Compiler (d) Assembler
(e) both (a) and (d)
48. Name the first widespread computer virus for MS-DOS?
(a) Brain (b) Handshake (c) Code Red
(d) Melissa (e) Sasser
49. What is ICMP (Internet Control Message Protocol)?
(a) a protocol that manages memory
(b) a protocol used to monitor computers
(c) a protocol that handles error and control messages
(d) both (a) and (b) (e) None of these
50. What is Loading Operating System into main memory called?
(a) Printing (b) Saving (c) Storing
(d) Staring (e) Booting

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51. What is a group of computers and associated devices that share a common communications line or wireless link to a server within a small geographic area are called?
(a) LAN (b) WAN (c) MAN
(d) both (a) and (b) (e) None of these
52. _____ is created when two tables are joined on attributes that are neither primary keys nor foreign keys.
(a) Relation (b) Cardinality (c) Spurious tuple
(d) Candidate Key (e) None of the above
53. What does SQL stand for?
(a) Structured Query Language
(b) Structured Questioning Logicstics
(c) Simplified Query Logic
(d) Simple Questioning Language
(e) Structured Query Logic
54. From where to where is a multicast message sent?
(a) From one source to one destination
(b) From multiple source to multiple destination
(c) From multiple sources to one destination
(d) From one source to multiple destinations
(e) None of the above
55. Using the direct broadcast address,
(a) a host sends a packet to all other host on the network.
(b) a router sends a packet to all other hosts on the network.
(c) a host sends a packet to a specific host on the network.
(d) a host sends a packet to all routers on the network.
(e) none of the above
56. In computing, a WYSIWYG editor is a system. What does WYSIWYG stands for?
(a) what you see is what you get
(b) when you see is where you get
(c) when you see is what you get
(d) where you see is when you get
(e) None of the above
57. What is the Global Access shortcut key for Opening a new database in MS Access?
(a) Cntrl+A (b) Cntrl+F (c) Cntrl+S
(d) Cntrl+O (e) Cntrl+N
58. What is the latest version of MS Office available?
(a) Office 2016 (b) Office 10 (c) Office 300
(d) Office 250 (e) None of the above
59. Which of the following is an operating system?
(a) Compiler (b) Plotter (c) Mac
(d) Both 1 and 2 (e) All of the above
60. Which of the following is the name of an application similar to MS Office?
(a) Libre Office (c) Open Office (c) Neo Office
(d) Free Office (e) All of the above
61. What is the full form of UNIVAC?
(a) Universal Automatic Computer
(b) Universal Array Computer
(c) Unique Automatic Computer
(d) Unvalued Automatic Computer
(e) None of these
62. The process of converting analog signals into digital signals so they can be processed by a receiving computer is referred to as
(a) Modulation (b) Demodulation
(c) Synchronizing (d) Digitizing (e) Transmission
63. Which of the following memory has stored data in large number?
(a) RAM (b) ROM (c) Cache memory
(d) Hard Disk (e) None of these
64. Generally, web address is located by
(a) Hyperlink (b) HTTP (c) URL
(d) Locator (e) Browser
65. Which of the following is more than TB?
(a) MB (b) KB (c) PB
(d) Bit (e) Bytes
66. A web address is a unique name that identifies a specific _____ on the internet.
(a) URL (b) HTML (c) CSS
(d) Website (e) None of these
67. If you wish to extend the length of the network without having the signal degrade, you would use a
(a) Gateway (b) Router (c) Modem
(d) Repeater (e) Resonator
68. The _____ button on the Quick Access Toolbar allows you to cancel your recent commands or activities.
(a) Search (b) Cut (c) Undo
(d) Redo
69. Which of the following is not a binary number?
(a) 110010 (b) 201020 (c) 101010
(d) 100001 (e) 1011101
70. Which of the following is a base of hexadecimal number?
(a) 8 (b) 2 (c) 10
(d) 16 (e) 24
71. A web address is a unique name that identifies a specific _____ on the internet.
(a) URL (b) HTML (c) CSS
(d) Website (e) None of these



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72. What do you call the programs that are used to find out possible faults and their causes?
(a) Operating system extensions (b) Cookies
(c) Diagnostic software (d) Boot diskettes
(e) None of the above
74. What is Adwords ?
(a) Advertising Service by Microsoft
(b) Advanced Search Engine
(c) Advertising Service by Google
(d) Automatic words Search Engine by Yahoo
(e) Advertising Service by Yahoo
75. Given the following URL -
http://www.example.com:80/path/to/myfile.html, here, 'www.example.com', ':80' stand for ____ and ____ respectively.
(a) IP and source (b) Domain Name and Port
(c) File name and Path (d) Path and Port
(e) IP and Locator
74. Which of the following is a recent version of operating systems?
(a) Windows XP (b) Windows 7 Basic
(c) Windows 8 (d) Windows 10
(e) Windows 2013
75. What is the full form of SMTP?
(a) Swift Mail Transmission Program
(b) Simple Mail Transfer Protocol
(c) Swift Mail Transfer Program
(d) Spam Mail Trash Program
(e) None of these
76. A high speed device used in CPU for temporary storage during processing is called
(a) Register (b) Bus (c) Compiler
(d) Translator (e) Bus
77. Which of the following is used for establishing connection to other document or locations within a website?
(a) Hyperlink (b) Web link (c) CSS
(d) Java query (e) HTML Link
78. When a computer is turned on, where does it get the first instructions that it loads into RAM?
(a) From RAM (b) From ROM
(c) From the Hard Disk
(d) From a CD (e) None of these
79. _____ is designed to communicate instructions to a machine, particularly a computer. It can be used to create programs to control the behavior of a machine or to express algorithms.
(a) PROM (b) Programming language
(c) Microcontrollers (d) EPROM
(e) None of the above
80. Which of the following groups contains all graphical file extensions?
(a) JPG, GIF, BMP (b) GIF, TCF, WMF
(c) TCP, JPG, BMP (d) ADP, GIF, PPT
(e) JPG, CPX, GCM
81. What type of technology allows you to verbally speak with someone over the Internet?
(a) Wiki (b) Social network
(c) E-phone (d) VoIP (e) Blog
82. In PowerPoint, what is the function of Alt+N in navigating the ribbon with only the keyboard?
(a) Open the Transitions tab (b) Open the Home tab
(c) Open the Insert tab (d) Open the Review tab
(e) Open the Tell me box
83. What is it called when you are rerouted from your requested internet site to another, undesired site?
(a) Phishing (b) Pharming (c) Redirecting
(d) Hijacking (e) Trojan
84. The coding language used to create documents for use on the Internet is _____.
(a) HTML (b) HSMT (c) HLTM
(d) All of these (e) HTTP
85. The technique in which an attacker convinces an authorized user to pass classified information to an unauthorized person is called .
(a) dumpster diving (b) reverse social engineering
(c) shoulder surfing (d) social engineering
(e) Cracking
86. In which generation did multi-programming start?
(a) First generation (b) Second generation
(c) Third generation
(d) Fourth generation (e) Fifth generation
87. FORTRAN is a programming language. It is more suitable for which purpose?
(a) business applications (b) marketing applications
(c) scientific applications
(d) statically calculative applications
(e) Commercial application
88. Speed of supercomputer measured in:
(a) Kbps (b) Mbps (c) FLOPS
(d) MIPS (e) CPS
89. Which of the following is used to open file menu options in current program?
(a) Ctrl+F (b) Shift+F (c) Alt+F
(d) Alt+Ctrl+F (e) Tab+F
90. By which of the following symbol all Excel formula start?
(a) % (b) + (c) -
(d) = (e) @
91. Which IEEE standard used to define the specification for a wireless LAN?
(a) IEEE 802.5 (b) IEEE 802.3 (c) IEEE 802.11
(d) IEEE 802.4 (e) IEEE 802.6
92. Which of the following data functions would you use to hide all rows in a worksheet except those that meet some criteria you specify?
(a) Sort (b) Query (c) Custom Filter
(d) Conditional Formatting
(e) Conditional specification
93. How many layers are in the TCP/IP model?
(a) 4 layers (b) 6 layers (c) 5 layers
(d) 7 layers (e) 3 layers
94. Which of the following is a video format?
(a) JPEG (b) GIF (c) FLV
(d) PNG (e) BMP

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95. Commands at the top of a screen such as File-Edit, Format and Tools to operate and change things are incorporated in _____.
(a) Menubar (b) Tool bar (c) Userfriendly
(d) Word processor (e) Graphics
96. The basic input/output system (BIOS) is stored in:
(a) RAM (b) ROM (c) ALU
(d) Peripherals (e) DRAM
97. Which of the following diagrams graphically represents an inter-relationship among entities in a database?
(a) Entity-relationship diagram
(b) Data flow diagram
(c) Control flow diagram
(d) Sequence diagram
(e) Data relationship diagram
98. Which of the following device enabling data transfer between two different networks?
(a) Bridge (b) Router (c) Gateway
(d) Repeater (e) Modem
99. Which of the following number system has base-8?
(a) Unary number system
(b) Binary number system
(c) Octal number system
(d) Hexadecimal Number System
(e) Decimal number system
100. What is a note or an annotation that an author or reviewer adds to a document?
(a) Comment (b) Caption (c) Footer
(d) Header (e) Underline

