**Tech+ Questions**

**Questions**

1. **How People Use Computers**

**Which of the following is an example of a general-purpose computing device?**

* A. Smart refrigerator
* B. Digital watch
* C. Desktop computer
* D. Fitness tracker
* **Correct Answer:** C. Desktop computer

**What is one benefit of connecting computing devices through a network?**

* A. It allows each device to operate independently from other systems
* B. It enables sharing of files, resources, and internet access
* C. It provides automatic security without user intervention
* D. It removes the need for data storage on individual devices

**Correct Answer:** B. It enables sharing of files, resources, and internet access

**Which feature is common across all computing devices?**

* A. The ability to connect directly to the internet
* B. The ability to process input and produce output
* C. Built-in touch screen capabilities
* D. Wireless connectivity

**Correct Answer:** B. The ability to process input and produce output

**What is a Media Access Control (MAC) address?**

a) A unique identifier assigned to a network interface controller

b) A type of network cable

c) A software protocol for network communication

d) A type of network firewall

**Correct Answer:** a) A unique identifier assigned to a network interface controller

1. **System Hardware**

What is the key difference between RAM and ROM?

* A. RAM is used for storage, while ROM is used for processing
* B. RAM is volatile and temporary, while ROM is permanent and non-volatile
* C. RAM is only used in mobile devices, while ROM is used in desktops
* D. RAM holds the operating system, while ROM stores user data

**Correct Answer:** B. RAM is volatile and temporary, while ROM is permanent and non-volatile

 **Which of the following best describes the function of the CPU in a computer system?**

* A. It stores long-term data such as files and applications
* B. It controls input and output devices like keyboards and printers
* C. It performs calculations and executes instructions for the computer
* D. It supplies power to all components in the computer

**Correct Answer:** C. It performs calculations and executes instructions for the computer

**Which component typically houses the CPU, RAM, and other key hardware elements?**

* A. Power supply
* B. Hard drive
* C. Motherboard
* D. Graphics card

**Correct Answer:** C. Motherboard

**How many bits are in a byte?**

a) 4

b) 8

c) 16

d) 32

**Correct Answer: b) 8**

1. **Device Ports and Peripherals**

**Which type of port is commonly used to connect modern external monitors to a computer?**

* A. VGA
* B. USB
* C. HDMI
* D. Ethernet

**Correct Answer:** C. HDMI

**What is a primary function of an input/output (I/O) device?**

* A. To increase storage capacity
* B. To allow interaction between the user and the computer
* C. To connect multiple devices to a single power source
* D. To improve the speed of internet connectivity

**Correct Answer:** B. To allow interaction between the user and the computer

**Which of the following devices is part of the Internet of Things (IoT)?**

* A. High-definition monitor
* B. Smart thermostat
* C. Inkjet printer
* D. Portable hard drive

**Correct Answer:** B. Smart thermostat

**Which of the following notational systems is base 10?**

a) Binary

b) Octal

c) Hexadecimal

d) Decimal

**Correct Answer:** d) Decimal

1. **Data Storage and Sharing**

**What is a key advantage of external drives over internal drives?**

Faster data transfer speeds  
B. Larger storage capacities  
C. Lower cost per gigabyte  
D. Portability and ease of connection to multiple devices

**Correct Answer:** D. Portability and ease of connection to multiple devices

**What type of storage device is typically used for backup and archival purposes due to its high capacity and low cost?**

A. SSD  
B. External Hard Drive  
C. Blu-ray Disc  
D. USB Flash Drive

**Correct Answer:** B. External Hard Drive\

**What does RAM stand for?**

A. Random Access Memory  
B. Read Access Memory  
C. Rapid Access Memory  
D. Readily Available Memory

**Correct Answer:** A. Random Access Memory

**What is a main benefit of using cloud storage?**

It is always free to use.  
B. You need to be at home to access it.  
C. You can access your files from anywhere with the internet.  
D. It requires special hardware to work.

**Correct answer:** C. You can access your files from anywhere with the internet.

1. **Understanding Operating Systems**

**What is the primary function of an operating system?**

A. To manage hardware and software resources  
B. To provide internet access  
C. To create applications  
D. To store data

**Correct answer:** A. To manage hardware and software resources

**Which of the following is an example of an operating system?**

A.Microsoft Word  
B. Google Chrome  
C. Windows 10  
D. Adobe Photoshop

**Correct answer:** C. Windows 10

**What is virtualization in the context of operating systems?**

A. Running multiple applications on a single device  
B. Creating virtual versions of physical hardware resources  
C. Increasing the speed of an operating system  
D. Using cloud storage for data

**Correct answer:** B. Creating virtual versions of physical hardware resources

**Which of the following operating systems is primarily used on mobile devices?**

A.Windows 10  
B. macOS  
C. Android  
D. Linux

**Correct answer:** C. Android

1. **Managing Files**

**What is the primary purpose of file management tools in an operating system?**

A. To create internet connections

B. To organize and manage files and folders

C. To enhance video playback

D. To improve system performance

**Correct answer:** B. To organize and manage files and folders

**Which of the following is a common cloud storage service?**

A. Microsoft Office

B. Google Drive

C. Adobe Reader

D. VLC Media Player

**Correct answer:** B. Google Drive

**What is the function of file manipulation in an operating system?**

A. To change the appearance of the desktop

B. To edit, move, copy, cut or delete files and folders

C. To improve internet browsing speed

D. To manage hardware devices

**Correct answer:** B. To edit, move, copy, cut or delete files and folders

**Which of the following actions is part of file manipulation?**

A. Turning on the computer

B. Installing new software

C. Renaming a file

D. Changing the screen resolution

**Correct answer:** C. Renaming a file

**7.Using and Managing Application Software**

**What is the primary purpose of productivity software?**

A. To create and edit images  
B. To manage system hardware  
C. To assist users in completing tasks like word processing and spreadsheets  
D. To enhance internet browsing

**Correct answer:** C. To assist users in completing tasks like word processing and spreadsheets

**When should you consider updating your applications?**

A. Only when they stop working

B. Regularly, to ensure security and access to new features

C. Once a year, regardless of need

D. Only when prompted by a pop-up message

**Correct answer:** B. Regularly, to ensure security and access to new features

**Which feature is commonly found in web browsers?**

A. File compression

B. Task management

C. Bookmarking favorite websites

D. Video editing

Correct answer: C. Bookmarking favorite websites

**Why is it important to keep applications updated?**

A. To increase the size of the application

B. To ensure compatibility with older hardware

C. To fix bugs and improve security features

D. To change the user interface

Correct answer: C. To fix bugs and improve security features

**8.Setting Up and Configuring a Mobile Devics**

What is the first step in setting up a new mobile device?

A. Installing apps

B. Connecting to Wi-Fi

C. Powering on the device

D. Inserting the SIM card

Correct answer: C. Powering on the device

**What is a common method for securing access to a mobile device?**

A. Antivirus software

B. Firewall

C. PIN or password

D. Encryption

Correct answer: C. PIN or password

**Which feature allows you to locate a lost or stolen mobile device?**

A. Find My Device

B. Mobile Hotspot

C. Airplane Mode

D. Data Roaming

Correct answer: A. Find My Device

**What is the purpose of configuring email on a mobile device?**

A. To improve battery life

B. To enable cellular data

C. To access emails on the go

D. To increase storage capacity

Correct answer: C. To access emails on the go

**9. Configuring Network and Internet Connectivity**

**What is the primary role of a router in a home network?**

A. To store data

B. To connect devices to the internet

C. To provide power to devices

D. To create software applications

Correct answer: B. To connect devices to the internet

**Which of the following is necessary to set up a Wi-Fi network at home?**

A. A printer

B. A wireless router

C. A USB flash drive

D. An external hard drive

Correct answer: B. A wireless router

**What is the purpose of a Network Interface Card (NIC)?**

A. To provide wireless connectivity

B. To connect a device to a network

C. To store network configuration settings

D. To encrypt network traffic

Correct answer: B. To connect a device to a network

**Which of the following is a function of a firewall?**

A. To increase network speed

B. To provide wireless access

C. To filter network traffic based on security rules

D. To amplify network signals

Correct answer: C. To filter network traffic based on security rules

**10.Network Security Concepts**

**What is the primary purpose of physical security in network protection?**

A. To encrypt data transmissions

B. To prevent unauthorized physical access to network devices

C. To block malicious websites

D. To update software automatically

Correct answer: B. To prevent unauthorized physical access to network device

**Which of the following is an example of user data encryption?**

A. Using a strong password

B. Installing antivirus software

C. Securing data by converting it into a code

D. Backing up data regularly

Correct answer: C. Securing data by converting it into a code

**What is a key component of Wi-Fi network security?**

A. Using a guest network

B. Disabling the router's firewall

C. Leaving the default network name (SSID)

D. Enabling WPA2 or WPA3 encryption

Correct answer: D. Enabling WPA2 or WPA3 encryption

**What does authentication refer to in network security?**

A. Granting access rights to users

B. Verifying the identity of users or devices

C. Monitoring user activities

D. Encrypting network traffic

Correct answer: B. Verifying the identity of users or devices

**11.Behavioral Security**

**What is the primary goal of security awareness training?**

A. To increase network speed

B. To educate users about potential security threats and best practices

C. To install antivirus software

D. To configure firewalls

Correct answer: B. To educate users about potential security threats and best practices

**Which of the following is an example of a social engineering attack?**

A. Distributed Denial of Service (DDoS)

B. Man-in-the-middle attack

C. Phishing email

D. SQL injection\

Correct answer: C. Phishing email

**What is a key principle of password management?**

A. Using the same password for multiple accounts

B. Sharing passwords with trusted colleagues

C. Using complex, unique passwords for each account

D. Writing down passwords and keeping them near the computer

Correct answer: C. Using complex, unique passwords for each account

**Which of the following is a best practice for password management?**

A. Using a password manager

B. Writing passwords on sticky notes

C. Using the same password for multiple accounts

D. Sharing passwords with trusted coworkers

Correct answer: A. Using a password manager

**12.IT Troubleshooting**

**What is the first step in the troubleshooting methodology?**

A. Implement the solution

B. Identify the problem

C. Test the solution

D. Establish a theory of probable cause

Correct answer: B. Identify the problem

**Which of the following is a key principle in IT troubleshooting?**

A. Always assume hardware is the problem

B. Restart the system immediately

C. Change multiple settings at once

D. Start with the simplest possible cause

Correct answer: D. Start with the simplest possible cause

**When troubleshooting, why is it important to document the steps taken?**

A. To increase system performance

B. To prevent future problems

C. To track the process and potentially help others

D. To slow down the troubleshooting process

Correct answer: C. To track the process and potentially help others

**Which of the following is NOT typically part of the troubleshooting process?**

A. Verifying full system functionality

B. Implementing preventive measures

C. Identifying the symptoms

D. Immediately replacing all hardware

Correct answer: D. Immediately replacing all hardware

**13.Understanding Databases**

**Which of the following best describes a relational database?**

A. A database that stores data in a single table

B. A database that uses XML to store data

C. A database that organizes data into tables with relationships between them

D. A database that only stores numerical data

Correct answer: C. A database that organizes data into tables with relationships between them

**What does SQL stand for?**

A. Simple Query Language

B. Structured Question Language

C. System Query Logic

D. Structured Query Language

Correct answer: D. Structured Query Language

**What are the three primary states of data, and what does each state represent?**

A. Data at rest, data in motion, data in use

B. Data creation, data storage, data deletion

C. Structured data, unstructured data, semi-structured data

D. Raw data, processed data, analyzed data

Correct answer: A. Data at rest, data in motion, data in use

**14.Developing and Implementing Software**

**Which of the following is NOT typically a phase in the Software Development Life Cycle (SDLC)?**

A. Planning

B. Design

C. Implementation

D. Monetization

Correct answer: D. Monetization

**Which phase of the Software Development Life Cycle typically comes after the Design phase?**

A. Planning

B. Implementation

C. Testing

D. Maintenance

Correct answer: B. Implementation

**What is typically the first phase of the Software Development Life Cycle?**

A. Implementation

B. Testing

C. Planning

D. Maintenance

Correct answer: C. Planning

**Which phase of the Software Development Life Cycle involves turning the design into actual code?**

A. Planning

B. Design

C. Implementation

D. Testing

Correct answer: C. Implementation