

Core Vocabulary

1. **Software:** Programs and applications used on electronic devices.
2. **Hardware:** Physical components of electronic devices.
3. **Internet:** Global network that connects computers and other devices.
4. **Cybersecurity:** Measures taken to protect computer systems and data from unauthorized access.
5. **Cloud Computing:** Storing and accessing data and programs over the internet instead of a computer's hard drive.
6. **Artificial Intelligence (AI):** Simulation of human intelligence processes by computer systems.
7. **Data Analytics:** Process of analyzing, interpreting, and visualizing data to make informed decisions.
8. **E-commerce:** Buying and selling goods and services over the internet.
9. **Social Media:** Online platforms and websites that enable users to create and share content.
10. **Virtual Reality (VR):** Immersive multimedia experience that simulates reality.
11. **Big Data:** Large volumes of data that cannot be processed using traditional methods.
12. **Internet of Things (IoT):** Network of interconnected devices that communicate and share data.
13. **Blockchain:** Distributed ledger technology used to record transactions securely and transparently.
14. **Augmented Reality (AR):** Technology that overlays digital information onto the real world.
15. **Machine Learning:** Subset of artificial intelligence that enables systems to learn and improve from experience.

Question Preview

1. Software:
 - a. What types of software do you use most frequently?
 - b. Have you ever encountered issues with software compatibility?
 - c. How important is it to keep your software up to date?
2. Hardware:
 - a. Can you name some common hardware components of a computer?
 - b. Have you ever upgraded hardware components in a device?
 - c. Why is it important to maintain hardware properly?
3. Internet:
 - a. How do you typically use the internet in your daily life?
 - b. What are some advantages and disadvantages of using the internet?
 - c. Have you ever experienced slow internet speeds? How did you resolve it?
4. Cybersecurity:
 - a. Why is cybersecurity important in today's digital age?
 - b. What steps do you take to ensure your online accounts are secure?
 - c. Have you ever experienced a cybersecurity breach? How was it handled?
5. Cloud Computing:
 - a. How do you use cloud computing in your personal or professional life?
 - b. What are some benefits of using cloud storage?
 - c. Have you ever encountered any challenges with cloud computing?
6. Artificial Intelligence (AI):
 - a. What are some examples of artificial intelligence that you interact with regularly?
 - b. How do you feel about the increasing use of AI in various industries?
 - c. What potential benefits and drawbacks do you see in the development of AI?
7. Data Analytics:
 - a. In what ways can data analytics be useful in business?
 - b. Have you ever used data analytics tools or software?
 - c. How do you think data analytics can impact decision-making processes?
8. E-commerce:
 - a. How often do you shop online? What do you typically purchase?
 - b. What are the advantages and disadvantages of e-commerce?
 - c. Have you ever encountered any issues with online transactions?
9. Social Media:
 - a. Which social media platforms do you use regularly?
 - b. How do you use social media for personal or professional purposes?
 - c. What are some benefits and risks associated with social media use?
10. Virtual Reality (VR):
 - a. Have you ever tried virtual reality technology? What was your experience like?
 - b. In what industries do you see potential applications for virtual reality?
 - c. How do you think virtual reality could change entertainment and education?
11. Big Data:
 - a. What types of organizations benefit from analyzing big data?
 - b. How is big data used to improve decision-making processes?
 - c. What challenges may arise when dealing with big data?
12. Internet of Things (IoT):
 - a. Can you name some examples of IoT devices in your home or workplace?
 - b. How does IoT technology improve efficiency and convenience?
 - c. What are some potential privacy and security concerns associated with IoT?
13. Blockchain:
 - a. How does blockchain technology work?
 - b. What are some industries that could benefit from adopting blockchain?
 - c. What are the advantages of using blockchain for transactions?
14. Augmented Reality (AR):
 - a. Have you ever experienced augmented reality applications? Describe your experience.
 - b. In what ways can augmented reality enhance user experiences?
 - c. What are some potential challenges in implementing augmented reality technology?
15. Machine Learning:
 - a. How is machine learning used in everyday applications?
 - b. What are some benefits of using machine learning in business?
 - c. What ethical considerations should be taken into account when developing machine learning algorithms?

Sub Vocabulary Preview

1. Software:
 - Operating Systems: Software that manages computer hardware and software resources.
 - Applications: Specific software programs designed to perform tasks for users.
 - Updates: Software modifications or improvements released by developers to enhance performance or fix issues.
2. Hardware:
 - Motherboard: Main circuit board containing the central processing unit (CPU) and other components.
 - Processor: Central processing unit responsible for executing instructions and performing calculations.
 - Peripherals: External devices connected to a computer, such as keyboards, mice, and printers.
3. Internet:
 - Websites: Online locations containing web pages and multimedia content accessible via the internet.
 - Browsing: Navigating and exploring web pages and content on the internet.
 - Broadband: High-speed internet connection capable of transmitting large amounts of data.
4. Cybersecurity:
 - Encryption: Process of encoding data to prevent unauthorized access.
 - Passwords: Secret codes used to authenticate users and grant access to protected resources.
 - Firewalls: Security barriers that monitor and control incoming and outgoing network traffic.
5. Cloud Computing:
 - Cloud Storage: Online data storage service where digital data is stored and accessed remotely.
 - Synchronization: Process of ensuring data consistency across multiple devices or platforms.
 - Remote Access: Ability to access and control computer systems or data from a remote location.
6. Artificial Intelligence (AI):
 - Machine Learning: Subset of AI that enables systems to learn from data and improve over time without explicit programming.
 - Algorithms: Step-by-step procedures or formulas used to solve problems or perform calculations.
 - Automation: Process of performing tasks or processes with minimal human intervention using AI and robotics.
7. Data Analytics:
 - Data Visualization: Representation of data in visual formats such as charts, graphs, and maps for easier understanding and analysis.
 - Predictive Analytics: Analytical technique used to predict future outcomes based on historical data and statistical algorithms.
 - Insights: Valuable information or knowledge gained from analyzing data to inform decision-making.
8. E-commerce:
 - Online Shopping: Purchasing goods or services over the internet from virtual stores or online marketplaces.
 - Digital Payments: Electronic transactions conducted over the internet using digital currencies or payment systems.
 - Delivery: Process of transporting goods from sellers to buyers, often facilitated by shipping or courier services.
9. Social Media:
 - Networking: Act of connecting and interacting with others online for personal or professional purposes.
 - Influencers: Individuals or entities with significant social media presence and the ability to influence the opinions and behaviors of others.
 - Engagement: Interaction and participation with social media content through likes, comments, shares, and other actions.
10. Virtual Reality (VR):
 - Headsets: Devices worn over the eyes to experience virtual reality by immersing users in digital environments.
 - Simulations: Computer-generated replicas of real-world scenarios or environments used for training, education, or entertainment purposes.
 - Gaming: Playing video games or interactive experiences in virtual reality environments.
11. Big Data:
 - Data Mining: Process of extracting valuable insights or patterns from large volumes of data using statistical analysis and machine learning algorithms.
 - Analytics: Examination and interpretation of data to uncover meaningful patterns, trends, and correlations.
 - Insights: Valuable information or knowledge gained from analyzing data to inform decision-making.
12. Internet of Things (IoT):
 - Sensors: Devices that detect and collect data from the physical environment and transmit it over the internet.
 - Connectivity: Ability of IoT devices to communicate and share data with each other and other systems via the internet.
 - Automation: Process of automating tasks or processes using IoT devices and sensors to improve efficiency and convenience.
13. Blockchain:
 - Cryptocurrency: Digital or virtual currencies secured by cryptography and decentralized ledger technology, such as Bitcoin and Ethereum.
 - Smart Contracts: Self-executing contracts with the terms of the agreement directly written into code, automatically enforced by the blockchain.
 - Decentralization: Distribution of control and authority across a network of computers or nodes, reducing the risk of a single point of failure or manipulation.
14. Augmented Reality (AR):
 - Mobile Apps: Applications designed to run on mobile devices such as smartphones and tablets, often used to deliver augmented reality experiences.
 - Visualization: Process of creating visual representations of data, concepts, or ideas to aid understanding or communication.
 - Gaming: Playing video games or interactive experiences in augmented reality environments.
15. Machine Learning:
 - Algorithms: Step-by-step procedures or formulas used to solve problems or perform calculations in machine learning models.
 - Training Data: Sets of labeled data used to train machine learning algorithms and models to make predictions or decisions.
 - Automation: Process of performing tasks or processes with minimal human intervention using AI and machine learning algorithms.