**Câu** 1.

* **Ensuring confidentiality**: … only the intended and authorized recipients—individuals, processes, or devices—can access and read data.
* **Maintaining communication integrity**: … the information has not been altered in transmission, from origin to destination.
* **Ensuring availability**: Availability means having the assurance of timely and reliable access to data services for authorized users.

**Câu** 2.

* **Cable**: … the Internet data signal is carried on the same coaxial cable that delivers cable television.
* **DSL**: Provides a high-bandwidth, always-on connection to the Internet.
* **Satellite**: … so service might be difficult in heavily wooded areas or places with other overhead obstructions.
* **Dialup telephone**: The low bandwidth provided by a dialup modem connection is usually not sufficient for large data transfer…

**Câu** 3.

* **Instant messaging (IM)/texting**:… enable instant real-time communication between two or more people.
* **Social media**: … where people and communities create and share user-generated content with friends, family, peers, and the world.
* **Wikis**: Wikis are web pages that groups of people can edit and view together.
* **Podcasting**: Podcasting is an audio-based medium that originally enabled people to record audio and convert it for use.

**Câu** 4. What is a characteristic of a converged network?

… there are still many points of contact and many specialized devices, such as personal computers, phones, TVs, and tablet computers, but there is one common network infrastructure. --> **A single network that delivers voice, video, and data to a variety of devices.**

**Câu** 5. What security violation would cause the most amount of damage to the life of home user?

Data interception and theft: An attack to capture private information from an organization’s network.

**Câu** 6. Which statement describes the use of PowerLine Networking technology?

Using the same wiring that delivers electricity, powerline networking sends information by sending data on certain frequencies similar to the technology used for DSL.

**Câu** 7. What two criteria are used to help select a network medium from various network media?

* The distance the medium can successfully carry a signal.
* The environment in which the medium is to be installed.

**Câu** 8. A company is contemplating whether to use a client/server or a peer-to-peer network. What are three characteristic of a peer-to-peer network?

* Easy to create.
* Lower cost … 🡪 less cost to implement.
* Can be used for simple tasks… 🡪 lacks centralized administration.

**Câu** 9. Which expression accurately defines the term bandwidth?

Network bandwidth is the measure of the data-carrying capacity of the network. … Network bandwidth is measured in the number of bits that can be transmitted in a single second, or bits per second (bps).

**Câu** 10. Which area of the network would a college IT staff most likely have to redesign as a direct result of many students bringing their own tablets and smartphones to school to access school resources?

Wireless LAN (WLAN) - Similar to a LAN but wirelessly interconnects users and end points in a small geographical area.

**Câu** 11. Which term describes the state of a network when the demand on the network resources exceeds the available capacity?

When simultaneous communications are attempted across the network, the demand for network bandwidth can exceed its availability, creating network congestion.

**Câu** 12. What type of network traffic requires QoS?

As data, voice, and video content continue to converge onto the same network, QoS becomes a primary mechanism for managing congestion and ensuring reliable delivery of content to all users.

**Câu** 13. A network administrator is implementing a policy that requires strong, complex passwords. Which data protection goal does this policy support?

This is accomplished by having a strong system for user authentication, enforcing passwords that are difficult to guess, and requiring users to change the passwords frequently. 🡪 Data confidentiality.

**Câu** 14. Which statement describes a characteristic of cloud computing?

Applications can be accessed over the Internet by individual users or businesses using any device, anywhere in the world.

**Câu** 15. Which two Internet solutions provide an always-on, high-bandwidth connection to computers on a LAN?

* **Cable**: … It provides a high-bandwidth, always-on connection to the Internet.
* **DSL**: Provides a high-bandwidth, always-on connection to the Internet…

**Câu** 16. Which two statements describe intermediary devices?

* Intermediary devices direct the path of the data.
* Intermediary devices connect individual hosts to the network.

**Câu** 17. Which device performs the function of determining the path that messages should take through internetworks?

Intermediary devices direct the path of the data but do not generate or change the data content … to determine the path that messages should take through the network.

**Câu** 18. Which two Internet connection options do not require that physical cables be run to the building?

* **Cellular**: Cellular Internet access uses a cell phone network to connect.
* **Satellite**: … Satellite dishes require a clear line of sight to the satellite…

**Câu** 19. What are two functions of end devices on a network?

* Hosts can send and receive messages on the network. In modern networks, end devices can act as a client, a server, or both. 🡪 **They originate the data that flows through the network.**
* These devices form the interface between users and the underlying communication network. 🡪 **They are the interface between humans and the communication network.**

**Câu** 20. Which networking trend involves the use of personal tools and devices for accessing resources on a business or campus network?

BYOD means any device, with any ownership, used anywhere. For example, in the past, a student who needed to access the campus network…

**Câu** 21. What is the Internet?

It provides connections through interconnected global networks.

**Câu** 22. An employee at a branch office is creating a quote for a customer. In order to do this, the employee needs to access confidential pricing information from internal servers at the Head Office. What type of network would the employee access?

An intranet.

**Câu** 23. What type of network must a home user access in order to do online shopping?

The Internet.

**Câu** 24. What is an ISP?

It is an organization that enables individuals and businesses to connect to the Internet.

**Câu** 25. A college is building a new dormitory on its campus. Workers are digging in the ground to install a new water pipe for the dormitory. A worker accidentally damages a fiber optic cable that connects two of the existing dormitories to the campus data center. Although the cable has been cut, students in the dormitories only experience a very short interruption of network services. What characteristic of the network is shown here?

Fault tolerance.

**Câu** 26. What is a WAN?

A WAN provides access to other networks over a large geographic area. A SAN provides data storage, retrieval, and replication. A MAN spans a limited physical area such as a city. A LAN provides access in a small geographic area. --> **a network infrastructure that provides access to other networks over a large geographic area**

**Câu** 27. The **arpanet** project started the development of inter-network connections using TCP/IP that has evolved into the Internet today.

**Câu** 28. An employee wants to access the network of the organization remotely, in the safest possible way. What network feature would allow an employee to gain secure remote access to a company network?

Virtual private networks (VPN) are used to provide secure access to remote workers. --> **VPN**.

**Câu** 29. In which scenario would the use of a WISP be recommended?

Wireless Internet Service Providers (WISPs) are typically found in rural areas where DSL or cable access is not available. A dish or antenna on the property of the subscriber connects wirelessly to a WISP transmitter, eliminating the need for physical cabling outside the building. --> **a farm in a rural area without wired broadband access**.

**Câu** 30. During a routine inspection, a technician discovered that software that was installed on a computer was secretly collecting data about websites that were visited by users of the computer. Which type of threat is affecting this computer?

Spyware.

**Câu** 31. How does BYOD change the way in which businesses implement networks?​

A BYOD environment requires an organization to accommodate a variety of devices and access methods. Personal devices, which are not under company control, may be involved, so security is critical. Onsite hardware costs will be reduced, allowing a business to focus on delivering collaboration tools and other software to BYOD users. --> **BYOD provides flexibility in where and how users can access network resources.**

**Câu** 32. Match the Internet connectivity type to the appropriate description or characteristic.

* **DSL** uses a high-speed modem to split the existing telephone line into voice, download, and upload signal channels.
* **SDSL** is a format of DSL that provides business class service featuring the same speeds for uploading and downloading.
* **Cable** uses the same coaxial or fiber optic cable that carries television signals into the home to provide Internet access.
* **Satellite** requires a clear line of sight and is affected by trees and other obstructions.
* **Cellular** access to the internet is provided by the cell phone network. Cellular provides access in areas that otherwise have no other form of access.
* **Metro** Ethernet is a dedicated business class of service that connects organizations to the internet via copper or fiber cable at speeds up to 10Gb/s.

**Câu** 33. An **intranet** is a private connection of LANs and WANs that belongs to an organization, and is designed to be accessible only by the members and employees of the organization, or others with authorization.

**Câu** 34. Which three devices are considered end devices in a network?

Routers, switches, and access points are intermediary devices.

**Câu** 35. What are two characteristics of a scalable network?

Scalable networks are networks that can grow without requiring costly replacement of existing network devices. One way to make a network scalable is to buy networking devices that are modular.

**Câu** 36. This represents an example of an **inside** security threat to an organization.

**Câu** 37. Match the example networks to the type of network.

Network A is a MAN. It consists of a number of different types of facilities that are connected within the same geographic area. Network B is a LAN. It is located in a limited geographic area in a single building. Network C is a WLAN. It is a LAN in which the devices are connected wirelessly. Finally option D shows a WAN. It is two geographically separate LANs that are connected to the same enterprise.