

Assignment Questions

1. Question: What is the primary example used in this book for studying computer networks and their protocols?

- A) Cloud computing
- B) The Intranet
- C) The public Internet
- D) Mobile networks

2. Question: According to the text, what are "hosts" in the context of the Internet?

- A) Physical servers used for data storage
- B) End systems, such as desktop computers and smartphones
- C) Network routers that direct traffic
- D) Software applications that run on computers

3. Question: The text describes the Internet as having two main ways to describe it. What are these two ways?

- A) Hardware and software components
- B) Data transmission methods
- C) A nuts-and-bolts description and a services description
- D) Network topologies and protocols

4. Question: What are some examples of traditional end systems?

- A) Smartphones and tablets
- B) Smart devices and IoT devices
- C) Desktop computers, Linux workstations, and servers
- D) Cloud servers and virtual machines

5. Question: What is the term used for devices increasingly connected via smartphones and tablets?

- A) End systems
- B) Hosts
- C) Smart devices or "Internet of Things" (IoT)
- D) Packet switches

6. Question: In 2017, approximately how many devices were connected to the Internet?

- A) 1 billion
- B) 18 billion
- C) 28.5 billion
- D) 180 billion

7. Question: What are communication links and packet switches used for?

- A) Storing data
- B) Directing data flow
- C) Interconnecting devices

D) Providing internet access

8. Question: What does "bps" stand for in the context of network links?

A) Bytes per second

B) Bits per second

C) Packets per second

D) Serial transmission

9. Question: When a sender sends data to another end system, what is the first step?

A) Sending the data through a packet switch

B) Formatting the data into a header

C) Segmenting the data

D) Establishing a connection

10. Question: What does the text mention as the first step in data transmission?

A) Sending data through a network link

B) Segmenting the data

C) Establishing a connection

D) Formatting the data

11. Question: What is the purpose of the header in data transmission?

A) To store the data itself

- B) To transmit data at different rates
- C) To contain information about the data's format and destination
- D) To encrypt the data for security

12. Question: What is the main function of packet switches?

- A) To store data
- B) To transmit data
- C) To interconnect devices
- D) To provide internet access

13. Question: What is the expected number of connected devices by 2022?

- A) 18 billion
- B) 28.5 billion
- C) 38 billion
- D) 48 billion

14. Question: What is the primary focus of the "nuts-and-bolts" description of the Internet?

- A) Services provided to applications
- B) Hardware and software components
- C) Data transmission methods
- D) Network topologies

15. Question: What is the difference between a "nuts-and-bolts" description and a "services description" of the Internet?

A) One focuses on hardware, the other on software

B) One focuses on the physical components, the other on the services they provide

C) One focuses on data transmission, the other on network topologies

D) They are the same