

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