

IT 210 CHAPTER 18

1 Packetizing at the network layer involves _____.

- A) encapsulating the payload at the source
- B) adds a header that contains the source and destination information
- C) decapsulating the payload at the destination
- D) All of the choices are correct

2 Routers in the path are not allowed to _____.

- A) fragment the packet they receive
- B) decapsulate the packet
- C) change source or destination address
- D) All of the choices are correct

3 The network layer in the Internet provides _____.

- A) comprehensive error and flow control
- B) limited error control, but no flow control
- C) comprehensive error control but limited flow control
- D) All of the choices are correct

4 In a virtual-circuit approach, the forwarding decision is based on the value of the _____ field in the packet header.

- A) source address
- B) destination address
- C) label
- D) None of the choices are correct

5 In a datagram approach, the forwarding decision is based on the value of the _____ field in the packet header.

- A) source address
- B) destination address
- C) label
- D) None of the choices are correct

IT 210 CHAPTER 18

6 The performance of a network can be measured in terms of _____.

- A) delay
- B) throughput
- C) packet loss
- D) All of the choices are correct

7 Transmission delay (time) is the ratio of _____.

- A) transmission rate to packet length
- B) transmission rate to distance
- C) packet length to transmission rate
- D) processing time to transmission rate

8 Propagation delay (time) is the ratio of _____.

- A) transmission rate to propagation speed
- B) propagation speed to distance
- C) packet length to propagation speed
- D) distance to propagation speed

9 When the load in the network reaches the network capacity, the packet delay _____ and the network throughput reaches _____.

- A) increases sharply; its minimum
- B) increases sharply; its maximum
- C) decreases sharply; its minimum
- D) decreases sharply; its maximum

10 In open-loop congestion control, policies are applied _____.

- A) to prevent congestion before it happens
- B) to alleviate congestion after it happens
- C) to either prevent congestion before it happens or alleviate congestion after it happens
- D) None of the choices are correct

IT 210 CHAPTER 18

11 The _____ technique is one of the open-loop congestion policies.

- A) backpressure
- B) choke packet
- C) implicit signaling
- D) None of the choices are correct

12 The _____ technique is one of the close-loop congestion policies.

- A) acknowledgment policy
- B) choke packet
- C) discarding policy
- D) None of the choices are correct

13 An IPv4 address is normally represented in base ____ in dotted-decimal notation.

- A) 16
- B) 256
- C) 10
- D) None of the choices are correct

14 In classful addressing, the IPv4 address space is divided into _____ classes.

- A) 3
- B) 4
- C) 5
- D) None of the choices are correct

15 The number of addresses assigned to an organization in classless addressing _____.

- A) can be any number
- B) must be a multiple of 256
- C) must be a power of 2
- D) None of the choices are correct

16 The first address assigned to an organization in classless addressing _____.

- A) must be evenly divisible by the number of addresses in the organization
- B) must be divisible by 128
- C) must belong to one of the A, B, or C classes
- D) None of the choices are correct

IT 210 CHAPTER 18

17 In subnetting, the number of addresses in each subnet must _____.

- A) be a power of 2
- B) be a multiple of 128
- C) be divisible by 128
- D) None of the choices are correct

18 What is the default prefix length for class A in CIDR notation?

- A) 9
- B) 8
- C) 16
- D) None of the choices are correct

19 What is the default prefix length for class B in CIDR notation?

- A) 9
- B) 8
- C) 16
- D) None of the choices are correct

20 What is the default prefix length for class C in CIDR notation?

- A) 24
- B) 8
- C) 16
- D) None of the choices are correct

21 DHCP is a (an) _____ layer protocol.

- A) application
- B) transport
- C) network
- D) data-link

22 In DHCP, the client uses _____ port and the server uses _____ port.

- A) an ephemeral; a well-known
- B) a well-known; a well-known
- C) a well-known; an ephemeral
- D) None of the choices are correct

IT 210 CHAPTER 18

23 DHCP uses the services of _____.

- A) UDP
- B) TCP
- C) IP
- D) None of the choices are correct

24 _____ allows a site to use a set of private addresses for internal communication and a set of global Internet addresses for communication with the rest of the world.

- A) DHCP
- B) NAT
- C) IMCP
- D) None of the choices are correct

25 The idea of address aggregation was designed to alleviate the increase in routing table entries when using _____ addressing.

- A) classful
- B) classless
- C) classful or classless
- D) None of the choices are correct

26 The use of hierarchy in routing tables can _____ the size of the routing tables.

- A) reduce
- B) increase
- C) neither reduce nor increase
- D) None of the choices are correct