

Started on	Monday, 4 August 2025, 4:54 PM
State	Finished
Completed on	Monday, 4 August 2025, 5:16 PM
Time taken	21 mins 33 secs
Marks	15.00/20.00
Grade	75.00 out of 100.00

Question 1

Complete

Mark 0.00 out of 1.00

A network 10.0.0.0/8 is split into 256 subnets. What is the new subnet mask?

- ☐ a. /10
- ☒ b. /9
- ☐ c. /16
- ☐ d. /24

Question 2

Complete

Mark 0.00 out of 1.00

How many hosts can a /29 subnet accommodate?

- ☒ a. 8
- ☐ b. 10
- ☐ c. 14
- ☐ d. 6

Question 3

Complete

Mark 1.00 out of 1.00

How many subnets can be created with a /28 prefix in a Class C network?

- ☐ a. 4
- ☐ b. 8
- ☒ c. 16
- ☐ d. 2

Question 4

Complete

Mark 0.00 out of 1.00

How many total IP addresses are available in a /30 subnet?

- ☐ a. 6
- ☒ b. 2
- ☐ c. 8
- ☐ d. 4

Question 5

Complete

Mark 1.00 out of 1.00

HTTP operates at which layer of the OSI model?

- ☐ a. Transport
- ☐ b. Network
- ☐ c. Presentation
- ☒ d. Application

Question 6

Complete

Mark 1.00 out of 1.00

In which OSI layer do switches operate?

- ☒ a. Data Link
- ☐ b. Network
- ☐ c. Transport
- ☐ d. Physical

Question 7

Complete

Mark 1.00 out of 1.00

The OSI model has how many layers?

- ☐ a. 6
- ☐ b. 8
- ☒ c. 7
- ☐ d. 5

Question 8

Complete

Mark 0.00 out of 1.00

What is the broadcast address for the 192.168.10.64/26 subnet?

- ☒ a. 192.168.10.128
- ☐ b. 192.168.10.65
- ☐ c. 192.168.10.127
- ☐ d. 192.168.10.63

Question 9

Complete

Mark 1.00 out of 1.00

What is the CIDR notation for the subnet mask 255.255.255.248?

- ☐ a. /27
- ☒ b. /29
- ☐ c. /28
- ☐ d. /26

Question 10

Complete

Mark 0.00 out of 1.00

What is the network address of 192.168.1.75/27?

- ☐ a. 192.168.1.64
- ☐ b. 192.168.1.0
- ☒ c. 192.168.1.128
- ☐ d. 192.168.1.96

Question 11

Complete

Mark 1.00 out of 1.00

What is the Protocol Data Unit (PDU) at the Network layer?

- ☐ a. Frames
- ☐ b. Bits
- ☐ c. Segments
- ☒ d. Packets

Question 12

Complete

Mark 1.00 out of 1.00

What is the subnet mask for a /26 network?

- ☐ a. 255.255.255.0
- ☐ b. 255.255.255.240
- ☒ c. 255.255.255.192
- ☐ d. 255.255.255.224

Question 13

Complete

Mark 1.00 out of 1.00

Which layer establishes, manages, and terminates sessions between applications?

- ☐ a. Presentation
- ☐ b. Network
- ☒ c. Session
- ☐ d. Application

Question 14

Complete

Mark 1.00 out of 1.00

Which layer handles encryption and decryption of data?

- ☐ a. Physical
- ☐ b. Session
- ☒ c. Presentation
- ☐ d. Transport

Question 15

Complete

Mark 1.00 out of 1.00

Which layer is responsible for end-to-end delivery of messages?

- ☐ a. Data Link
- ☐ b. Network
- ☒ c. Transport
- ☐ d. Physical

Question 16

Complete

Mark 1.00 out of 1.00

Which layer of the OSI model is responsible for path determination and logical addressing?

- ☐ a. Transport
- ☒ b. Network
- ☐ c. Data Link
- ☐ d. Application

Question 17

Complete

Mark 1.00 out of 1.00

Which layer of the OSI model is responsible for reliable transmission of data segments between points on a network?

- ☐ a. Network
- ☐ b. Application
- ☐ c. Session
- ☒ d. Transport

Question 18

Complete

Mark 1.00 out of 1.00

Which of the following IPs is a valid host in the 192.168.1.0/24 network?

- ☐ a. 192.168.1.255
- ☒ b. 192.168.1.1
- ☐ c. 192.168.1.0
- ☐ d. 192.168.2.1

Question 19

Complete

Mark 1.00 out of 1.00

Which of the following is a valid subnet mask?

- ☐ a. 255.255.128.255
- ☒ b. 255.255.255.252
- ☐ c. 255.255.0.255
- ☐ d. 255.0.255.0

Question 20

Complete

Mark 1.00 out of 1.00

Which of the following is not a function of the Data Link Layer?

- ☐ a. MAC Addressing
- ☐ b. Error Detection
- ☐ c. Framing
- ☒ d. Routing