Started on	Monday, 4 August 2025, 4:56 PM
State	Finished
Completed on	Monday, 4 August 2025, 5:08 PM
Time taken	12 mins 1 sec
Marks	18.00/20.00
Grade	**90.00** out of 100.00

Question 1
Complete
Mark 1.00 out of 1.00

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

- a. /24
- b. /10
- c. /9
- ⦿ d. /16

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. 2
- b. 8
- c. 4
- ⦿ d. 16

Question 4

Complete

Mark 1.00 out of 1.00

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

○ a.　6

○ b.　8

◉ c.　4

○ d.　2

Question 5

Complete

Mark 1.00 out of 1.00

HTTP operates at which layer of the OSI model?

○ a.　Transport

○ b.　Presentation

○ c.　Network

◉ d.　Application

Question 6

Complete

Mark 0.00 out of 1.00

In which OSI layer do switches operate?

○ a.　Transport

○ b.　Physical

○ c.　Data Link

◉ d.　Network

Question 7

Complete

Mark 1.00 out of 1.00

The OSI model has how many layers?

○ a.　8

○ b.　6

◉ c.　7

○ d.　5

Question 8

Complete

Mark 1.00 out of 1.00

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

- ○ a. 192.168.10.128
- ● b. 192.168.10.127
- ○ c. 192.168.10.63
- ○ d. 192.168.10.65

Question 9

Complete

Mark 1.00 out of 1.00

What is the CIDR notation for the subnet mask 255.255.255.248?

- ○ a. /26
- ○ b. /28
- ○ c. /27
- ● d. /29

Question 10

Complete

Mark 1.00 out of 1.00

What is the network address of 192.168.1.75/27?

- ○ a. 192.168.1.96
- ● b. 192.168.1.64
- ○ c. 192.168.1.128
- ○ d. 192.168.1.0

Question 11

Complete

Mark 1.00 out of 1.00

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

- ○ a. Segments
- ○ b. Bits
- ○ c. Frames
- ● 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. 255.255.255.224
- ◉ d. 255.255.255.192

Question 13

Complete

Mark 1.00 out of 1.00

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

- ○ a. Network
- ○ b. Presentation
- ◉ c. Session
- ○ d. Application

Question 14

Complete

Mark 1.00 out of 1.00

Which layer handles encryption and decryption of data?

- ◉ a. Presentation
- ○ b. Physical
- ○ c. Transport
- ○ d. Session

Question 15

Complete

Mark 1.00 out of 1.00

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

- ◉ a. Transport
- ○ b. Network
- ○ c. Data Link
- ○ 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. Application
- ◉ b. Transport
- ○ c. Session
- ○ d. Network

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. 192.168.1.0
- ◉ b. 192.168.1.1
- ○ c. 192.168.2.1
- ○ d. 192.168.1.255

Question 19

Complete

Mark 1.00 out of 1.00

Which of the following is a valid subnet mask?

- ◉ a. 255.255.255.252
- ○ b. 255.255.128.255
- ○ 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.   Framing
- ○ b.   Error Detection
- ○ c.   MAC Addressing
- ◉ d.   Routing