

CSE 421 Quiz 1

Total marks: 15 Time: 20 minutes

ID:	Name:	Section:
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1. Choose the correct answer: [1 x 5 = 5]

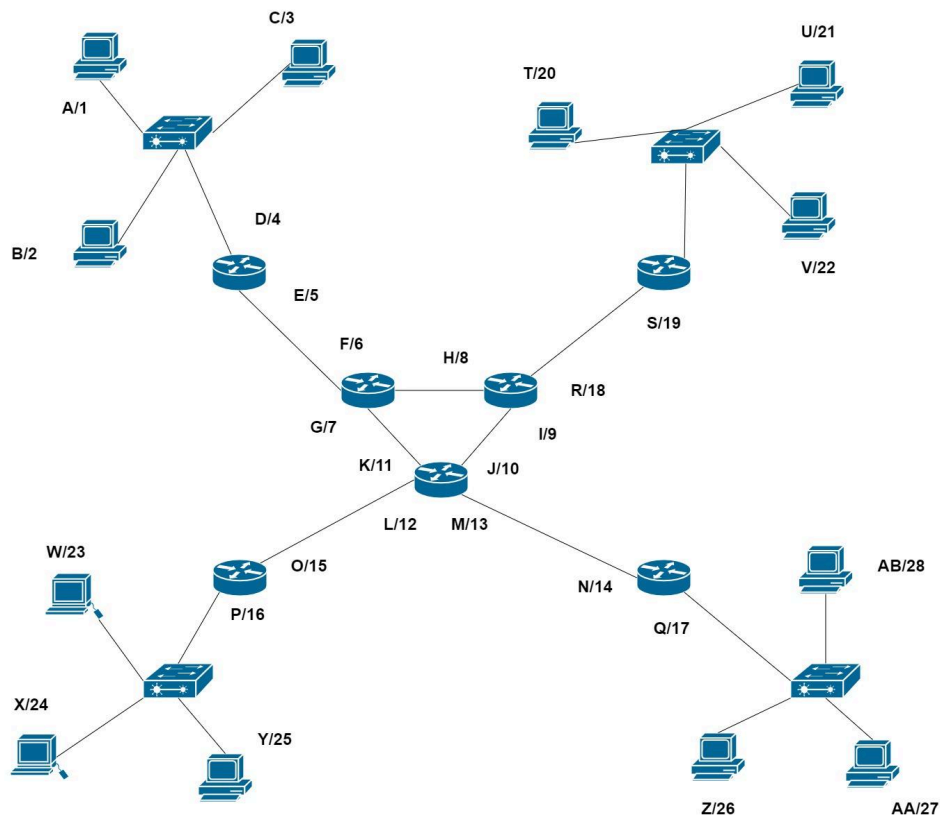
- i. How many layers can a router be involved with?
 - A. 1
 - B. 2
 - ☒ C. 3
 - D. 4
- ii. Which of the following PDU is encapsulated in a frame?
 - A. User datagram
 - B. Segment
 - ☒ C. Packet
 - D. Bits
- iii. What should be the minimum size of a data link layer header?
 - A. 48 bits
 - ☒ B. 96 bits
 - C. 48 bytes
 - D. 96 bytes
- iv. Which layer of the OSI model is responsible for ensuring reliable end-to-end communication and error recovery?
 - A. Physical
 - B. Data Link
 - ☒ C. Transport
 - D. Session
- v. Which is not a functionality of the transport layer?
 - A. Error Control
 - ☒ B. Host to host delivery
 - C. Connection Control
 - D. Segmentation

2. Provide addressing for data transmission for the following network using the following information: [10]

The **numbers** represent **IP addresses**. The **capital case characters** represent **MAC addresses**. '1' wants to send an email to '27'. '1' has two processes running. Email running on port 'e' and a web service running on port 'w'. '27' has only one email process running on port 't'.

Please indicate the path you choose for routing the data in the diagram below. Your answer

should reflect the path you take for forwarding the packets. Show the addressing for all the hops.



Dst MAC	Src MAC	DST IP	Src IP	DST port	Src port
D	A	27	1	+	e
F	E	27	1	+	e
K	G	27	1	+	e
N	M	27	1	+	e
AA	Q	27	1	+	e