


National University of Computer and Emerging Sciences, Lahore Campus

	Course Name:	Computer Networks	Course Code:	CS 3001
	Program:	BS (Computer Science)	Semester:	Spring 2024
	Duration:	15 minutes	Total Marks:	15
	Paper Date:	25-Apr-2024	Section	6A
	Exam Type:	Quiz 5 - Chapter 5	Page(s):	2

Student Name

Roll No.

Section:

Q1. Encircle the correct option:

[5 marks] [CLO 3]

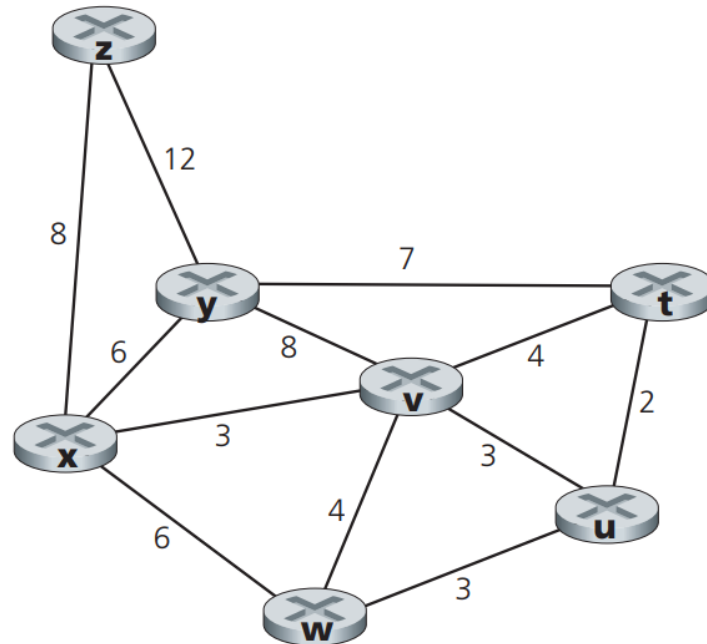
1. What is one use of the AS Path attribute from below?
 - a) To determine if a route is active in the routing table
 - b) To prevent routing loops
 - c) To establish a BGP peer session
 - d) To prevent a denial-of-service attack
2. What is the primary purpose of BGP (Border Gateway Protocol)?
 - a) Exchange routing information within an Autonomous System (AS)
 - b) Facilitate communication between routers within the same subnet
 - c) Connect different autonomous systems and exchange routing information
 - d) Route traffic within a local network
3. What is the key characteristic of a distance vector routing protocol?
 - a) It maintains a complete map of the network.
 - b) It uses a link-state database for routing decisions.
 - c) It periodically shares its entire routing table with its immediate neighbors.
 - d) It relies on policies to determine the best path.

True/False:

4. Hot-potato routing is the practice of passing traffic off to another autonomous system as quickly as possible. [T / F]
5. In a distance-vector routing algorithm, each node has a map of the entire network and determines the shortest path from itself to all other nodes in the network. [T / F]

Question 2: Consider the following network. With the indicated link costs, use Dijkstra's shortest-path algorithm to compute the shortest path from **x** to all network nodes.

[10 Marks] [CLO 3]



Step	N'	D(t),P(t)	D(u),P(u)	D(v),P(v)	D(w),P(w)	D(y),P(y)	D(z),P(z)