


National University of Computer and Emerging Sciences, Lahore Campus

	Course Name:	Computer Networks	Course Code:	CS 3001
	Program:	BS (Computer Science)	Semester:	Fall 2023
	Duration:	15 minutes	Total Marks:	15
	Paper Date:	02-November-2023	Section	5J
	Exam Type:	Quiz 4 - Chapter 4	Page(s):	2

Student Name

Roll No.

Section:

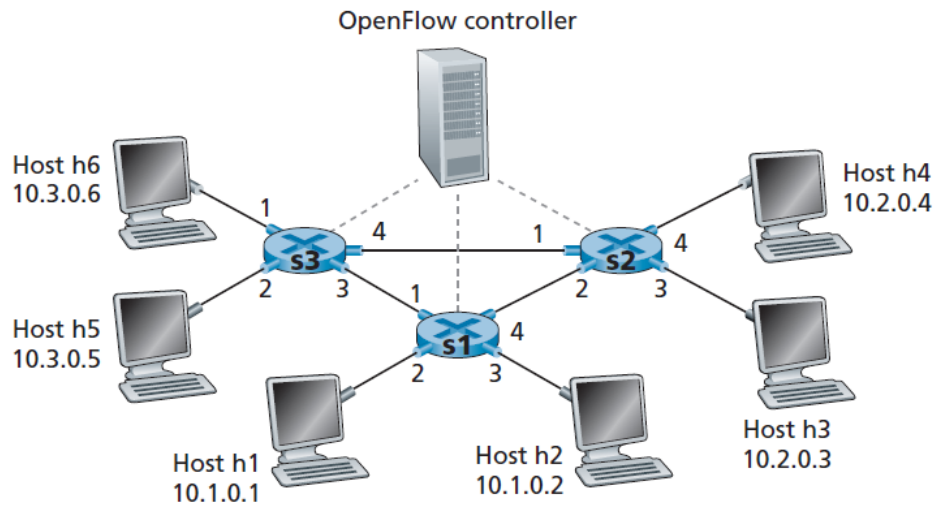
Q1. Encircle the correct option:

[5 marks] [CLO 3]

- The key function of the Network Layer's data plane is
 - Error and Diagnostic Functions
 - Routing Algorithms
 - Routing / network wide logic
 - Forwarding / local per router function
- Match the classes of IP addresses with their functional applications
 - Multicast services
 - Reserved for future use
 - Large organizations
 - Midsized Organizations.
 - Class A — iv, Class B — iii, Class D — ii, Class E — i
 - Class A — ii, Class B — iv, Class D — i, Class E — iii
 - Class A — iii, Class B — iv, Class D — i, Class E — ii
 - Class A — i, Class B — ii, Class C — iii, Class D — iv
- Network ID and a subnet ID
 - can never be the same
 - can be same
 - are always the same.
 - None of the above

True/False:

- The value in the header length field of IPv4 header is scaled by a factor of 2. [T / F]
- The IP version 4 address consists of 4 octets. [T / F]



Q2. Consider again the SDN OpenFlow network shown above. Suppose that the desired forwarding behavior for datagrams arriving from hosts h3 or h4 at s2 is as follows:

- any datagrams arriving from host h3 and destined for h1, h2, h5 or h6 should be forwarded in a clockwise direction in the network
- any datagrams arriving from host h4 and destined for h1, h2, h5 or h6 should be forwarded in a counter-clockwise direction in the network.

Specify the flow table entries in s2 that implement this forwarding behavior.

[10 marks] [CLO 3]

S2 Flow Table

Match	Action