

ITS 323 – QUIZ 4 (CS)

First name: _____ Last name: _____

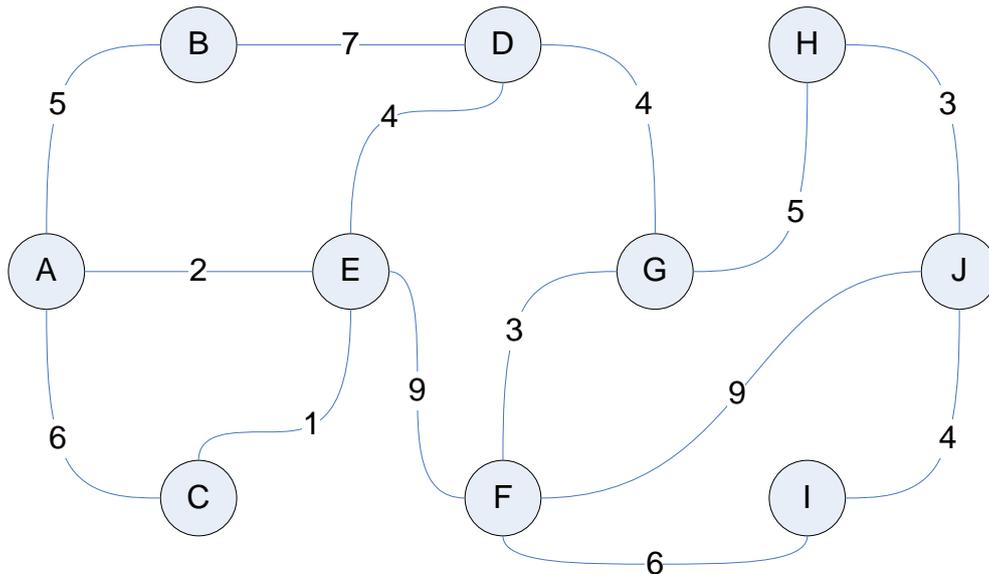
ID: _____

Total Marks: _____

out of 10

Question 1 [4 marks]

Consider the network below. For each link a cost is shown. Assume the links are bi-directional, and the costs are identical in both directions.



The following routing table is created from a routing algorithm for the entire network.

		From Node									
		A	B	C	D	E	F	G	H	I	J
To Node	A	-	A	E	E	A	E	D	G	F	H
	B	B	-	A	B	A	G	D	G	F	H
	C	E	A	-	E	C	E	D	G	F	H
	D	E	D	E	-	D	G	D	G	F	H
	E	E	A	E	E	-	E	D	G	F	H
	F	E	D	E	G	F	-	F	G	F	F
	G	E	D	E	G	D	G	-	G	F	H
	H	E	D	E	G	D	G	H	-	J	H
	I	E	D	E	G	F	I	F	J	-	I
	J	E	D	E	G	F	J	H	J	J	-

- a) What path is taken to send a packet from E to J [1.5 mark]?

Path: _____

- b) What routing algorithm was used to create the data in the routing table (circle one) [1 mark]:
- Dijkstra's
 - Bellman-Ford
 - None of the above
- c) Explain your answer to part (b). [1.5 mark]

Question 2 [6 marks]

True or False:

- a) PDH, SDH and SONET are network technologies that use Synchronous Time Division Multiplexing T / F
- b) Frame Relay and the Internet Protocol both use virtual circuit packet switching. T / F
- c) Datagram packet switching requires a header to be added to each packet; virtual circuit packet switching *does not* add a header to each packet. T / F
- d) Packets may arrive out of order in datagram packet switching networks. T / F
- e) If the network is overloaded, a connection may be blocked in a circuit switched network; but in a datagram packet switched network, overload leads to higher packet delay. T / F
- f) Random routing generates less overhead than flooding, but will not always send a packet over the path with least number of hops. T / F