

ITS 323 – QUIZ 6 (CSB)

First name: _____ Last name: _____

ID: _____

Total Marks: _____

out of 10

Question 1 [3 marks]

Assume Classful Addressing is used.

- a) Computer A has IP address 193.132.17.3. What class is it? _____
- b) What IP address identifies the network of Computer A? _____
- c) Is the computer with the following IP address on the same network as A? YES / NO
11000001 10000100 00000011 00000000

Question 2 [3 marks]

Assume Classless Addressing is used.

- a) What subnet mask should be used to create the same network size as that of Computer A in Question 1?

- b) Computer C has IP address 64.33.8.3. What is the network address for this computer if the subnet mask is 255.255.192.0?

- c) What is the broadcast address for computer C with subnet mask 255.255.192.0?

Question 3 [3 marks]

Multiple choice (circle the correct answer):

- a) Which protocol maps IP addresses into physical address (like IEEE MAC addresses):
- ICMP
 - ARP
 - DNS
 - IP
- b) For a network with a maximum of 3000 hosts, which subnet mask is most appropriate?
- /12
 - /20
 - /10
 - /11
- c) The purpose of the Protocol Number field in the IP header is:
- Indicate the lower layer (data link) protocol that the data is intended for
 - Indicate the protocol options used by IP
 - Indicate the next higher layer protocol that the data is intended for
 - Indicate the version of IP being used
- d) For an IP datagram with destination address 150.102.12.10/24 at a router with the following routing table, what next router will the datagram be sent to:
- | Destination Network | Next Router |
|---------------------|-------------|
| 150.102.7.* /24 | A |
| 150.*.7.10/24 | B |
| 150.102.*.* /24 | C |
| * | D |
- A
 - B
 - C
 - D