

ROUTING AND SWITCHING ASSESSMENT

1. Your router has the following IP address on Ethernet0: 172.16.2.1/23. Which of the following can be valid host IDs on the LAN interface attached to the router?

1. 172.16.1.100
 2. 172.16.1.198
 3. 172.16.2.255
 4. 172.16.3.0
-
- A. 1 only
 - B. 2 and 3 only
 - C. 3 and 4 only
 - D. None of the above

2. Which two statements describe the IP address 10.16.3.65/23?

1. The subnet address is 10.16.3.0 255.255.254.0.
 2. The lowest host address in the subnet is 10.16.2.1 255.255.254.0.
 3. The last valid host address in the subnet is 10.16.2.254 255.255.254.0.
 4. The broadcast address of the subnet is 10.16.3.255 255.255.254.0.
-
- a) 1 and 3
 - b) 2 and 4
 - c) 1, 2 and 4
 - d) 2, 3 and 4

3. What is the maximum number of IP addresses that can be assigned to hosts on a local subnet that uses the 255.255.255.224 subnet mask?

- a) 14
- b) 15
- c) 16
- d) 30

4. You need to subnet a network that has 5 subnets, each with at least 16 hosts. Which classful subnet mask would you use?

- a) 255.255.255.192
- b) 255.255.255.224
- c) 255.255.255.240
- d) 255.255.255.248

5. If an Ethernet port on a router were assigned an IP address of 172.16.112.1/25, what would be the valid subnet address of this host?

- a) 172.16.112.0
- b) 172.16.0.0

- c) 172.16.96.0
- d) 172.16.255.0