Northampton Community College
CISC271 – CCNA 3 & 4 - Chapter 6 Study Guide

1. What are some of the benefits of using trunks with sub-interfaces on a router?

2. What is meant by the term "router-on-a-stick"?

3.
```
RA(config)# interface fastethernet 0/1
RA(config-if)# no shutdown
RA(config-if)# interface fastethernet 0/1.1
RA(config-subif)# encapsulation dot1q 10
RA(config-subif)# ip address 192.168.1.49 255.255.255.240
RA(config-subif)# interface fastethernet 0/1.2
RA(config-subif)# encapsulation dot1q 60
RA(config-subif)# ip address 192.168.1.65 255.255.255.192
RA(config-subif)# interface fastethernet 0/1.3
RA(config-subif)#encapsulation dot1q 120
RA(config-subif)#ip address 192.168.1.193 255.255.255.224
RA(config-subif)#end
```
Use the table above to answer the following questions:
   a. How many VLANs are there?
   b. How many interfaces are being used?
   c. How many sub interfaces are being used?
   d. What are the VLAN numbers?
   e. What will the router do with a packet received from 192.168.1.51 destined for 192.168.1.124? Be specific.

4. How is ARP handled when using sub-interfaces (inter-VLAN routing)?

5. What parameters must be configured when configuring VLANs on a single router interface?

6. What commands would cause a switchport interface to be configured for trunking?

7. What is the minimum interface bandwidth required to support inter-VLAN Routing?