

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Northampton Community College**  
**CISC 231 – Data Communications and LANs (CCNA 1)**  
**STUDY GUIDE FOR CHAPTER 5**

1. In an IPv4 environment, what information is used by the router to forward data packets from one interface of a router to another?
2. What information is added during encapsulation at OSI Layer 3?
3. What is meant by a “connectionless” system?
4. What does the IP protocol use to prevent endless loops?
5. Identify the primary fields in the packet header.
6. What portion of the network layer address does the router use to forward packets?
7. What is a default gateway? Why is it necessary to configure it?
8. What device is used to make path determination decisions at layer 3?
9. Define: static route? default route?

10. Identify the components of a routing table entry?
  
11. Describe a broadcast domain.
  
12. What is dynamic routing?
  
13. How could a network administrator control broadcast traffic?
  
14. What is meant by the term “next-hop address”?