

Network Architectures 3329 (5503)  
Spring 2018  
03/16/18

Name: \_\_\_\_\_

Quiz 8-1

Time Limit: 5 minutes

---

- **Print your name.**
- Close-book policy: You may not use the text, my class notes and/or any notes and study guides you have created. You may use a calculator. You may not use a cell phone or computer.
- When you have completed your quiz, hand it to me and go have a great weekend!

Problem	Points	Score
1	1	
2	1	
3	1	
4	1	
5	1	
Total:	5	

---

1. (1 point) The primary functions of the network layer include
  - A. move traffic from sending host to a receiving host
  - B. forward traffic from a router's input link to its output link
  - C. coordinate the forwarding action of each router
  - D. all of the above**
2. (1 point) Network layer protocols can run in
  - A. every host
  - B. every router
  - C. the network edge and core
  - D. all of the above**
3. (1 point) The forwarding tables that determines the forwarding behavior of a router can only be configured by a routing protocol.
 

A. True    **B. False**
4. (1 point) With longest prefix matching (the forwarding table is shown in the below), a packet with destination address 11001000 00010111 00010110 10100001 will be forwarded to link interface
 

**A. 0**    B. 1    C. 2    D. 3

Prefix Match	Link Interface
11001000 00010111 00010	0
11001000 00010111 00011000	1
11001000 00010111 00011	2
otherwise	3

Figure 1: Forwarding table (with longest prefix matching) for question 4

5. (1 point) A router's switching fabric is almost always implemented in hardware whereas the management and control plane are usually implemented in software.
 

**A. True**    B. False