**CS 3800 Computer Networks**

Instructor: John Korah

**Quiz # 4**

**Duration: 15 minutes**

**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SECTION: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Suppose a process in Host C has a UDP socket with port number *6789*. Suppose both Host A and Host B each send a UDP segment to Host C with destination port number 6789. Will both of these segments be directed to the same socket at Host C? If so, how will the process at Host C know that these two segments originated from two different hosts?
2. Compute the Internet checksum value for these two 16-bit words using the 1s complement:

   0110010 10101110    this binary number is 12974 decimal (base 10)  
     00000100 10100001            this binary number is 1185 decimal (base 10)

**Solution:**

 When we add these first two numbers together, we get:  
  
  00110010 10101110  
  00000100 10100001  
      -------- --------

0 00110111 01001111      this binary number is 14159 decimal (base 10)  
  
 Since there is no carry, all we need to do now is take the ones complement of the rightmost 16-bit binary string,  
 giving the Internet checksum: 11001000 10110000

1. What does the Domain Name System accomplish? (pick one option)
2. It allows network-connected computers to use a textual name for a computer and look up its IP address
3. It keeps track of the GPS coordinates of all servers
4. It allows Regional Internet Registries (RIRs) to manage IP addresses on the various continents
5. It assigns different IP addresses to portable computers as they move from one WiFi to another

Ans: a)

1. Which of the following DNS records is used to identify a domain's SMTP server?
2. CNAME
3. PTR
4. MX
5. A

Ans: c)

1. Controlling congestion with UDP is: (pick the best option)
2. Part of the packet process
3. Part of the function of the network
4. Up to the user
5. Up to the application

Ans: d)

1. In the sending computer, UDP receives a data unit from the \_\_\_\_\_\_\_ layer.
2. Application
3. Transport
4. IP
5. none of the above

Ans: a)