

CS 372 **Introduction to Computer Networks**
Self-Check Exercises: Lecture 26

- 1) What reliability services does the IP network-layer protocol implement?
- 2) What are the minimum and maximum sizes of the IP header, in bytes?
- 3) Theoretically, what is the maximum number of bytes of “payload” (actual application data) that can be transmitted in an IP datagram carrying a TCP segment?
- 4) Why can’t we use hardware addresses for our network address.
- 5) Convert the following 32-bit binary number to a dotted-decimal IP address format.
10000000 11000001 00000100 01110000
 - a. What do you find when you make an HTTP GET (port 80) request at this IP address?
 - b. Convert the same address into hexadecimal format.

6) For the IP addresses as follows, how many bits are used for the network part, and how many bits are used for the host part?

a. 128.145.22.44 / 28

b. 142.33.54.71 / 26

c. 193.111.54.4 / 16

7) What organization manages IP network addresses globally.