Sri Lanka Institute of Information Technology
Year 1 – Semester 1 (2022)
Introduction to Computer Systems

Tutorial 10

1) Convert the following IP addresses from binary notation to dotted decimal notation.

    a. 10000001 00001011 00001011 11101111

    b. 11000001 10000011 00011011 11111111

    c. 11100111 11011011 10001011 01101111

    d. 11111001 10011011 11111011 00001111

2) Find the error, if any, in the following IP addresses:

    a. 111.56.045.78

    b. 221.34.7.8.20

    c. 75.45.301.14

    d. 11100010.23.14.67

3) In IPv4 classful addressing, indicate how to recognize the class when the IP address is given in binary notation (Hint: Use a diagram).

4) Find the class of each address:

    a. 00000001 00001011 00001011 11101111

    b. 11000001 10000011 00011011 11111111

    c. 10100111 11011011 10001011 01101111

    d. 11110011 10011011 11111011 00001111

5) In IPv4 classful addressing, indicate how to recognize the class when the IP address is given in dotted decimal notation.

6) Find the class of each address:

a. 227.12.14.87

b.193.14.56.22

c.14.23.120.8

d. 252.5.15.111

e.134.11.78.56

7) Given the IP address 17.0.0.1, find the class, the net ID, and the range of the addresses.

8) Given the IP address 132.21.0.20, find the class, the net ID, and the range of the addresses.

9) Given the network address 220.34.76.11, find the class, the net ID, and the range of the addresses.

10) Given the address 23.56.7.91, find the network address.

11) Given the address 132.6.17.85, find the network address.

12) Given the address 201.180.56.5, find the network address.

13) Consider classful addressing and find the class, network address, 1st usable IP address, last usable IP address and the broadcast address of the following addresses.

   a. 101.2.3.4

   b. 200.20.10.5

   c. 192.168.16.100

   d. 25.10.100.200

   e. 180.2.150.2

14) In class A, B and C what are the ranges reserved as private addresses?