

Fundamentals of Computer networking group assignment (15-20%)

Submission date: at end of the class.

Group size: 4-5 members

Submission file format: only hardcopy. (printed word or pdf file)

Direction:

- Copy from other groups strictly forbidden.
- Each group members should participate so that evaluation will be by individually participation during submission time.
- All subnet and host addresses should be created in binary and decimal value.
- Please send your list of group members with your telegram group before Tuesday (24/06/2017 E.C)

1. Given an IP Address

I. 193.120.170.110/255.255.255.240

II. 130.18.60.120/26

III. 120.10.2.0/255.248.0.0

Based on the above block addresses, find

- A. Number of subnet and number of host for each address.
- B. Find all subnet address of each address
- C. Find host address of the third subnet of each address
- D. First usable host address and Broadcasting address for the second subnet of each address

2. An organization has been assigned the network number 200.10.12.0 and it needs to create 14 subnets currently and will expand its network for the future. The organization has 20 hosts to be connected with in this subnet but currently only 10 computers will be networked for each subnet. Define at least 6 the subnet address and host address for second and third subnets. What is the broadcasting address for the second host? Show all the necessary steps for each subnet and host address.

3. Assume that the organization has a network address of 150.10.9.0/20 and this organization asks you to divide this address in to subnets. The organization needs each sub network to support 200 hosts. Create at least eight subnets for the organization and show the host address for the third and fourth subnets.