Assignment-3A
IP Address

Q1. Class B network having IP Address 128.12.0.0 is divided into 8 subnets, Answer the followings

(a) Find the Subnet mask of Network after subnetting .

(b) How many maximum number of of hosts are possible in a subnet

(c) Find the Network ID and Broadcast address of third, Fourth , Seventh Subnetwork .

(d) Find the First IP Address of third Subnetwork.

(e) Find the 350^{th}, Last and First IP Address of sixth Subnetwork

(f) Find the 760^{th}, Last and First IP Address of fifth Subnetwork

(g) A subnetwork have IP address 128.12.85.89 , Find the First and last IP address of this Subnetwork

(h) A subnetwork have IP address 128.12.85.89 , Find the First and last IP address of this Subnetwork

Q2. Class B network having IP Address 173.20.0.0 is divided into 18 subnets, Answer the followings

(a) Find the Subnet mask of Network after subnetting .

(b) How many maximum number of of hosts are possible in a subnet

(c) Find the Network ID and Broadcast address of third, Fourth , Seventh Subnetwork .

(d) Find the First IP Address of third Subnetwork

(e) Find the 350^{th}, Last and First IP Address of tenth Subnetwork

(f) Find the 760^{th}, Last and First IP Address of ninth Subnetwork

(g) A subnetwork have IP address 173.20.185.189 , Find the First and last IP address of this network

(h) A subnetwork have IP address 173.20.75.23 , Find the First and last IP address of this network

Q3. Subnet ID of last subnet of a class B network is 190.13.224.0 , Answer the followings

(a) Find the Subnet mask of Network after subnetting .

(b) How many maximum number of of hosts are possible in this subnet

(c) Find the Network ID and Broadcast address of third, Fourth , Seventh network .

(d) Find the First IP Address of third Subnetwork

(e) Find the 412^{th}, Last and First IP Address of sixth Subnetwork

(f) Find the 345^{th}, Last and First IP Address of fifth Subnetwork

(g) A subnetwork have IP address 190.13.220.45 , Find the First and last IP address of this Subnetwork

(h) A subnetwork have IP address 190.13.175.123 , Find the First and last IP address of this Subnetwork

Q4. Subnet ID of last subnet of a class C network is 192.13.224.192 , Answer the followings

(a) Find the Subnet mask of Network after subnetting .

(b) How many maximum number of of hosts are possible in this subnet

(c) Find the Network ID and Broadcast address of first, second , third Subnetwork .

(d) Find the First IP Address of third Subnetwork

(e) Find the 12^{th}, Last and First IP Address of second Subnetwork

(f) Find the 45^{th}, Last and First IP Address of third Subnetwork

(g) A subnetwork have IP address 192.13.224.75 , Find the First and last IP address of this Subnetwork.

(h) A subnetwork have IP address 192.13.224.198 , Find the First and last IP address of this Subnetwork

Q5. Find the possible Subnet mask (at least 3) of subnets which have following pairs of IP address. Every Pair belongs to same network

(a) 170.12.98.245 & 170.12.116.232

(b) 178.156.49.234 & 178.156.56.123

(c) 189.13.40.123 & 189.13.50.245

(d) 120.15.234.234 & 120.145.123.234

Q6. Find the possible Subnet mask (at least 3) of subnets which have following pairs of IP address. Every Pair belongs to same network

(a) 175.120.95.245 & 175.120.112.232

(b) 177.156.125.234 & 177.156.56.123

(c) 198.13.40.123 & 189.13.50.110

(d) 900.15.156.234 & 90.15.129.234

Q7. The routing table of a router is shown below

Destination	Subnet Mask	Interface
128.75.96.0	255.255.255.0	Eth0
128.75.96.0	255.255.224.0	Eth1
128.75.160.0	255.255.240.0	Eth5
192.12.17.128	255.255.255.192	Eth3
192.12.17.128	255.255.255.240	Eth4
Default	-	Eth2

Suppose router receive 10 packet with destination IP address as given below , find the destination Interface for each data packet .

(a) 128.75.112.126

(b) 128.75.125.234

(c) 128.75.190.24

(d) 128.75.178.173

(e) 128.75.241.153

(f) 128.75.135.124

(g) 128.75.169.217

(h) 192.12.17.231

(i) 192.12.17.43

(j) 192.12.17.142

(k) 192.12.17.68

Q8. An IP router implementing Classless Inter-domain Routing (CIDR) . The routers routing table has the following entries:

Prefix	Output Interface Identifier
129.16.64.0/14	3
129.28.14.0/ 13	5
129.19.13.0/ 17	2
129.22.45.0/ 18	1
default	4

Suppose router receive 10 packet with destination IP address as given below , find the destination Interface for each data packet .

(a) 129.53.112.126

(b) 129.175.125.234

(c) 129.125.190.24

(d) 129.245.178.173

(e) 129.85.241.153

(f) 129.35.135.124

(g) 129.195.169.217

(h) 129.215.190.24

(i) 129.45.178.173

(j) 129.23.241.153

(k) 129.135.135.124

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