TOPIC HARSH Date

Roll No. 23130 2086 Code B. Tech CSE Page No. 3rd Sem.

Assignment - 2

Computer Networks

Ques 1 Classless Addressing overcomes the problem of?
Ans Address depletion

Ques 2 Which of the following is true for classless addressing?
Ans: a) The Addresses are contiguous.

Ques 3 The value of 'n' in classless addressing to referred to as -
Ans: a Prefix length

Ques 4 The slash notation is classless addressing is referred to as -
Ans: c) CIDR

Ques 5 CIDR stands for
Ans: b) Classless Inter Domain Routing

Ques 6 A classless address is given as
167 199 170 82/27 find No of Addresses
Ans: 64

Ques 7 Which of the following values can 'n' not take?
Ans: 8

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Ques 8. A classless address is given as 167.199.170.82/27

Ans 167.199.170.64

Ques 9. A classless address is given as 167.199.170.82/27 find last Address

Ans 167.199.170.95

Ques 10 An ISP has requested a block of 1000 addresses how many blocks are granted to it?

Ans 1024

Ques 11 An ISP has requested a block of 1000 addresses what is its prefix length?

Ans 22

Ques 12 If the first Address is 18.14.12.0/22, what is the last Address?

Ans 18.14.15.255/22

Ques 13 You have the network 192.162.160.0/24 & you subnet it further into 4 equal subnets what are the network addresses of each of resulting subnets?

Ans 192.168.100.0/26 (range : 192.168.100.0 → 192.168.100.63)

192.168.100.192/26 (range : 192.168.100.

192 → 192.168.100.255

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Ques 14 If you are assigned the network 10.0.0/22, how many subnets can you create if you want each subnets to accomodate 50 hosts? What will be the new subnets mask?

Ans Number of subnets: to accommodate 50 hosts, each subnets needs 64 addresses

→ New subnets mask: /26 (255.255.255.192)

→ since /24 to /26 involves a difference of 2 bits $2^2 = 4$ subnets can be created

Ques 15 You have a network 172.16.0.0/16 & you need to create three subnets: one for 200 hosts, one for 100 hosts, one for 50 hosts. What will be the ranges for each subnets?

Ans:

→ subnet (200 hosts):

→ Required address: 256

→ subnet mask: /24 (255.255.255.0)

Range: 172.16.0.0 – 172.16.0.255

→ subnet 2 (100 hosts): Required Address = 128

→ subnet mask: /25 (255.255.255.128)

Range = 172.16.1.0 – 172.16.1.127

→ subnet 3 (50 hosts):

Required Address: 64

subnet mask: /26 (255.255.255.192)

Range: 172.16.1.128 – 172.16.1.191

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Ques 6 Given the IP address 192.168.10.76 with a Subnet mask of 255.255.255.240, what is the network address? Also, what is the broadcast address for this subnet?

Ans: Network Address :- 192.168.10.79

- Broadcast address :- 192.168.10.79
  With a subnet mask of 255.255.255.240 Each subnet has 16 addresses. The range for the subnet containing 192.168.10.76 goes from 192.168.10.64 → 192.168.10.79.

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