QUESTION BANK

1. IPV4 ADDRESSES

Q1. Consider We have a big single network having IP Address 200.1.2.0. We want to do subnetting and divide this network into 2 subnets.
Q2. Consider We have a big single network having IP Address 200.1.2.0. We want to do subnetting and divide this network into 4 subnets.
Q3.Consider We have a big single network having IP Address 200.1.2.0. We want to do subnetting and divide this network into 3 subnets.
Q4. Suppose a network with IP Address 192.16.0.0. is divided into 2 subnets, find the number of hosts per subnet. Also for the first subnet, find-

1. Subnet Address
2. First Host ID
3. Last Host ID
4. Broadcast Address

Q5. You have been allocated a class A network address of 29.0.0.0. You need to create at least 20 networks and each network will support a maximum of 160 hosts. Would the following two subnet masks Work?
255.255.0.0 and or 255.255.255.0
Q6. Write the IP address 222.1.1.20 mask 255.255.255.192 in CIDR notation
Q7. Subnet the Class C IP Address 205.11.2.0 so that you have 30 subnets.
What is the subnet mask for the maximum number of hosts? How many hosts can each subnet have? What is the IP address of host 3 on subnet 2?
Q8. Subnet the Class C IP Address 195.1.1.0 So that you have at least 2 subnets each subnet must have room for 48 hosts. What are the two possible subnet masks?
Q8. Given the subnet Mask 255.255.255.192 What is the host address and subnet of the following IP address 197.1.2.67.
Q9. You are assigning IP addresses to hosts in the 192.168.4.0 /26 subnet. Which two of the following IP addresses are assignable IP addresses that reside in that subnet? a. 192.168.4.0 b. 192.168.4.63 c. 192.168.4.62 d. 192.168.4.32 e. 192.168.4.64
Q10. A host in your network has been assigned an IP address of 192.168.181.182 /25. What is the subnet to which the host belongs? a. 192.168.181.128 /25 b. 192.168.181.0 /25 c. 192.168.181.176 /25 d. 192.168.181.192 /25 e. 192.168.181.160 /25
Q11.You are working with a Class B network with the private IP address of 172.16.0.0 /16. You need to maximize the number of broadcast domains, where each broadcast

domain can accommodate 1000 hosts. What subnet mask should you use? a. /22 b. /23 c. /24 d. /25 e. /26

Q12. What is the directed broadcast address of a subnet containing an IP address of 172.16.1.10 /19? a. 172.16.15.255 b. 172.16.31.255 c. 172.16.255.255 d. 172.16.95.255 e. 172.16.0.255

Q13. A customer is using a Class C network of 192.168.10.0 subnetted with a 28-bit subnet mask. How many subnets can be created by using this subnet mask? a. 32 b. 16 c. 30 d. 8 e. 14

Q14. Given a subnet of 172.16.56.0 /21, identify which of the following IP addresses belong to this subnet. (Select 2.) a. 172.16.54.129 b. 172.16.62.255 c. 172.16.61.0 d. 172.16.65.255 e. 172.16.64.1

Q15. What is the subnet address of the IP address 192.168.5.55 with a subnet mask of 255.255.255.224? a. 192.168.5.0 /27 b. 192.168.5.16 /27 c. 192.168.5.32 /27 d. 192.168.5.48 /27 e. 192.168.5.64 /27

Q16. You are working for a company that will be using the 192.168.1.0 /24 private IP address space for IP addressing inside their organization. They have multiple geographical locations and want to carve up the 192.168.1.0 /24 address space into subnets. Their largest subnet will need 13 hosts. What subnet mask should you use to accommodate at least 13 hosts per subnet, while maximizing the number of subnets that can be created? a. 255.255.255.248 b. 255.255.255.224 c. 255.255.255.252 d. 255.255.255.192 e. 255.255.255.240

Q17. A customer is using a Class C network of 192.168.10.0 subnetted with a 28-bit subnet mask. How many assignable addresses are available in each of the subnets? a. 32 b. 16 c. 30 d. 8 e. 14

Q18. Given the network address of 112.44.0.0 and the network mask of 255.255.0.0 Would the two stations with addresses 112.44.22.19/16 and 112.44.23.2/16 be on the same network?

Q19. An IP address of 192.168.0.100 /27 belongs to which of the following subnets? a. 192.168.0.92 b. 192.168.0.128 c. 192.168.0.64 d. 192.168.0.96 e. 192.168.0.32

Q20. How many network devices can be supported on a single network using network mask of

255.255.240.0 ?