

## Soal Subnetting

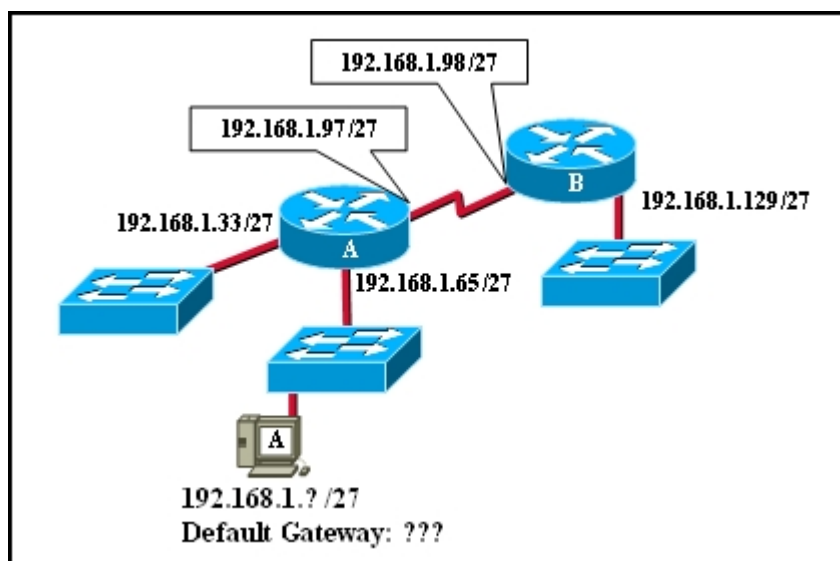
1. A company has the following addressing scheme requirements:

- currently has 25 subnets
- uses a Class B IP address
- has a maximum of 300 computers on any network segment
- needs to leave the fewest unused addresses in each subnet

What subnet mask is appropriate to use in this company?

- 255.255.240.0
- 255.255.248.0
- 255.255.254.0
- 255.255.255.0
- 255.255.255.128
- 255.255.255.248

2. Refer to the exhibit. Host A is being manually configured for connectivity to the LAN. Which two addressing scheme combinations are possible configurations that can be applied to the host for connectivity? (Choose two.)



- Address - 192.168.1.14  
Gateway - 192.168.1.33
- Address - 192.168.1.45  
Gateway - 192.168.1.33
- Address - 192.168.1.32  
Gateway - 192.168.1.33
- Address - 192.168.1.82  
Gateway - 192.168.1.65
- Address - 192.168.1.63  
Gateway - 192.168.1.65
- Address - 192.168.1.70  
Gateway - 192.168.1.65

3. A NIC of a computer has been assigned an IP address of 172.31.192.166 with a mask of 255.255.255.248. To which subnet does the IP address belong?
- 172.31.0.0
  - 172.31.160.0
  - 172.31.192.0
  - 172.31.248.0
  - 172.31.192.160
  - 172.31.192.248
4. Which subnet masks would be valid for a subnetted Class B address? (Choose two.)
- 255.0.0.0
  - 255.254.0.0
  - 255.224.0.0
  - 255.255.0.0
  - 255.255.252.0
  - 255.255.255.192
5. Which combination of network id and subnet mask correctly identifies all IP addresses from 172.16.128.0 through 172.16.159.255?
- 172.16.128.0 and 255.255.255.224
  - 172.16.128.0 and 255.255.0.0
  - 172.16.128.0 and 255.255.192.0
  - 172.16.128.0 and 255.255.224.0
  - 172.16.128.0 and 255.255.255.192
6. Which type of address is 223.168.17.167/29?
- host address
  - multicast address
  - broadcast address
  - subnetwork address
7. What is the correct number of usable subnetworks and hosts for the IP network address 192.168.99.0 subnetted with a /29 mask?
- 6 networks / 32 hosts
  - 14 networks / 14 hosts
  - 30 networks / 6 hosts
  - 62 networks / 2 hosts
8. Company XYZ uses a network address of 192.168.4.0. It uses the mask of 255.255.255.224 to create subnets. What is the maximum number of usable hosts in each subnet?
- 6
  - 14
  - 30
  - 62

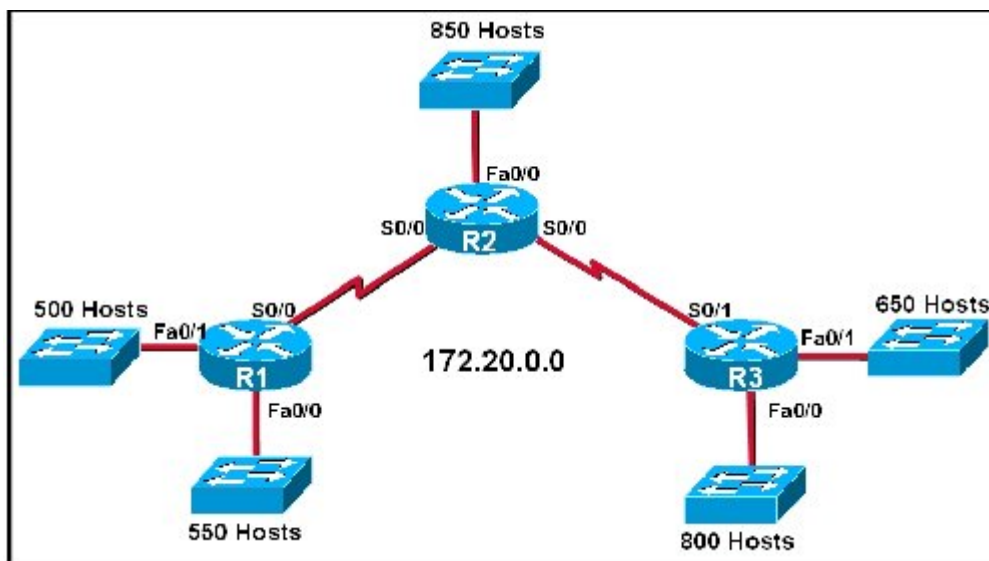
9. A company is planning to subnet its network for a maximum of 27 hosts. Which subnet mask would provide the needed hosts and leave the fewest unused addresses in each subnet?
- 255.255.255.0
  - 255.255.255.192
  - 255.255.255.224
  - 255.255.255.240
  - 255.255.255.248
10. An IP network address has been subnetted so that every subnetwork has 14 usable host IP addresses. What is the appropriate subnet mask for the newly created subnetworks?
- 255.255.255.128
  - 255.255.255.224
  - 255.255.255.240
  - 255.255.255.248
  - 255.255.255.252
11. A company is using a Class B IP addressing scheme and expects to need as many as 100 networks. What is the correct subnet mask to use with the network configuration?
- 255.255.0.0
  - 255.255.240.0
  - 255.255.254.0
  - 255.255.255.0
  - 255.255.255.128
  - 255.255.255.192
12. Given a host with the IP address 172.32.65.13 and a default subnet mask, to which network does the host belong?
- 172.32.65.0
  - 172.32.65.32
  - 172.32.0.0
  - 172.32.32.0
13. What is the subnetwork number of a host with an IP address of 172.16.210.0/22?
- 172.16.42.0
  - 172.16.107.0
  - 172.16.208.0
  - 172.16.252.0
  - 172.16.254.0
- 14 Which of the following IP addresses fall into the CIDR block of 115.64.4.0/22? (Choose three.)
- 115.64.8.32
  - 115.64.7.64
  - 115.64.6.255
  - 115.64.3.255
  - 115.64.5.128
  - 115.64.12.128

15. What is the subnetwork address for a host with the IP address 200.10.5.68/28?
- 200.10.5.56
  - 200.10.5.32
  - 200.10.5.64
  - 200.10.5.0
16. The network address of 172.16.0.0/19 provides how many subnets and hosts?
- 7 subnets, 30 hosts each
  - 7 subnets, 2046 hosts each
  - 7 subnets, 8190 hosts each
  - 8 subnets, 30 hosts each
  - 8 subnets, 2046 hosts each
  - 8 subnets, 8190 hosts each
17. You need 500 subnets, each with about 100 usable host addresses per subnet. What mask will you assign using a Class B network address?
- 255.255.255.252
  - 255.255.255.128
  - 255.255.255.0
  - 255.255.254.0
18. What is the subnetwork number of a host with an IP address of 172.16.66.0/21?
- 172.16.36.0
  - 172.16.48.0
  - 172.16.64.0
  - 172.16.0.0
19. What mask would you assign to the network ID of 172.16.0.0 if you needed about 100 subnets with about 500 hosts each?
- 255.255.255.0
  - 255.255.254.0
  - 255.255.252.0
  - 255.255.0.0
20. You need to configure a server that is on the subnet 192.168.19.24/29. The router has the first available host address. Which of the following should you assign to the server?
- 192.168.19.0 255.255.255.0
  - 192.168.19.33 255.255.255.240
  - 192.168.19.26 255.255.255.248
  - 192.168.19.31 255.255.255.248
  - 192.168.19.34 255.255.255.240
21. You need a minimum of 300 subnets with a maximum of 50 hosts per subnet. Which of the following masks will support the business requirements? (Choose two.)
- 255.255.255.0
  - 255.255.255.128
  - 255.255.252.0
  - 255.25.255.224
  - 255.255.255.192
  - 255.255.248.0

22. If an Ethernet port on a router were assigned an IP address of 172.16.112.1/25, what would be the valid subnet address of this host?

- a. 172.16.112.0
- b. 172.16.0.0
- c. 172.16.96.0
- d. 172.16.255.0
- e. 172.16.128.0

23. Refer to the exhibit. The internetwork in the exhibit has been assigned the IP address 172.20.0.0. What would be the appropriate subnet mask to maximize the number of networks available for future growth?



- a. 255.255.224.0
- b. 255.255.240.0
- c. 255.255.248.0
- d. 255.255.252.0
- e. 255.255.254.0

24. You have a network with a subnet of 172.16.17.0/22. Which are valid host addresses?

- a. 172.16.17.1 255.255.255.252
- b. 172.16.0.1 255.255.240.0
- c. 172.16.20.1 255.255.254.0
- d. 172.16.16.1 255.255.255.240
- e. 172.16.18.255 255.255.252.0
- f. 172.16.0.1 255.255.255.0

25 Your router has the following IP address on Ethernet0: 172.16.112.1/20. How many hosts can be accommodated on the Ethernet segment?

- a. 1024
- b. 2046
- c. 4094
- d. 4096
- e. 8190

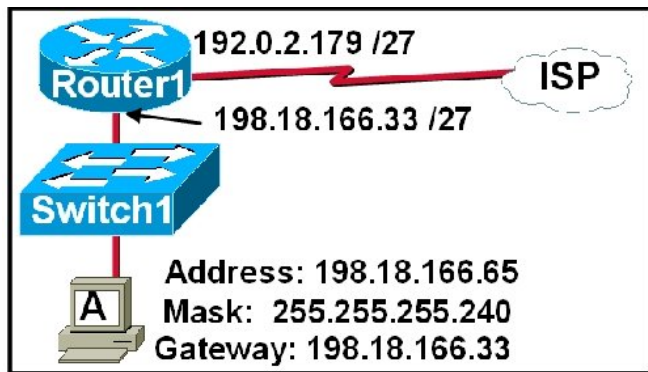
26. You have a /27 subnet mask. Which of the following are valid hosts? (Choose three.)

- a. 11.244.18.63
- b. 90.10.170.93
- c. 143.187.16.56
- d. 192.168.15.87
- e. 200.45.115.159
- f. 216.66.11.192

27. You have a Class B network ID and need about 450 IP addresses per subnet. What is the best mask for this network?

- a. 255.255.240.0
- b. 255.255.248.0
- c. 255.255.254.0
- d. 255.255.255.0

28. Host A is connected to the LAN, but it cannot connect to the Internet. The host configuration is shown in the exhibit. What are the two problems with this configuration? (Choose two.)



- a. The host subnet mask is incorrect.
- b. The host is not configured for subnetting.
- c. The default gateway is a network address.
- d. The default gateway is on a different network than the host.
- e. The host IP address is on a different network from the Serial interface of the router.