1. When can a dhcp server relay IP addresses to clients on a network segment separated from the server's location?

a)DHCP server can only relay IP addresses to the clients found on the same network segment

b)when the router separating them acts as a relay agent

c)when the dhcp server uses the same IP address as the router that supports the network segment where the clients are located

d)when there are more logical routes between the dhcp server and the subnetwork clients

2.Choose the correct use of the Straight through and the Cross over cable

a)cross cable to connect a PC to a PC and straight through to connect a switch to a hub

b)cross cable to connect a router to a PC and straight through to connect a switch to a server

c)cross cable to connect a switch to a hub and straight through to connect a router to a switch

d)cross cable to connect a switch to a switch and straight through to connect a hub to a switch

3.Choose the correct use of the following cables :

a)straight through to connect a hub to a switch or a hub to a PC

b)cross cable to connect a PC to a server or a PC to a router

c)straight through to connect a PC to a PC or a switch to a router

d)cross cable to connect a router to a router or a hub to a switch

4.In what situation is a PC unable to ping another PC ?

a)PCs are on two different network segments on the same network

b)firewall is disabled on both of the PCs

c)one of the PCs is connected to the router by cross over cable

d)firewall is enabled on both computers

6. Which of the following is not a characteristic of the IP protocol?

a) It affects packet routing

b)Is considered an unreliable protocol

c)Is a connection-oriented protocol

d)It defines the Internet addressing system

7. Having more than one DHCP server on the same subnet of a network is :

a)possible , if all server besides one are offline , so that the client requests for IP addresses only reach that server

b)possible, as long as they share the same address pool to give to the clients

c)possible only if each of them has a different pool of addresses, without sharing any address

d)not possible

8.What is the main function of DNS?

a)maps a known IP address to a MAC layer address

b)provides host names to TCP/IP address resolution

c)automatically assigns IP addresses to the devices across the network

d)provides network connectivity to a computer

9.Gateways are used for:

a)providing connectivity between two or more network segments

b)providing network connectivity to a computer

c)tracing the route taken by data from the router to the destination network

d)transfer files between different platforms

10. What is the maximum number of hosts for a class C network ?

a)65.534

b)65.535

c)128

d)254

11.What is the maximum number of networks in a class A network ?

a)126

b)128

c)16,384

d)254

12.Which one of the following addresses is a public IP address ?

a)10.0.0.0/8

b)207.46.130.0/24

c)172.16.0.0/12

d)1.0.0.0/8

13.NAT is :

a) a connection between computers and other network devices that are located within a small physical location

b)a protocol providing a way for multiple computers on a common network to share single connection to the Internet

c)a protocol used by routers to send data from one network to another

d)a set of protocol layers designed to make data exchange possible on different types of computer networks

14.Which one is not true about classless routing protocols :

a)RIPv1 supports classless routing protocols

b)RIPv2 supports classless routing protocols

c) It is allowed to a use a variable length mask

d)It is allowed to use discontiguous network

15.Which one of these is a RIPv2 characteristic ?

a)maintains a routing table as in RIPv1 without the mask information

b)is a classful routing protocol

c)supports maximum metric(hop count) value up to 15 . Any router further than 15 hops is considered unreachable

d)does not support triggered updates or authentication of ripv2 update messages

16.Which one is true about RIPv1?

a)It is easier to configure than RIPv2

b)It maintains a routing table as in RIPv2 , including mask information

c)It has a lower administrative distance than RIPv2

d)It has the same timers ad RIPv2

17.An IP address is :

a)64 bits

b)32 bytes

c)128 bytes

d)32 bits

18.Which of the following are valid IP addresses to mark a sub network ?

a) 177.91.107.144/29

b)177.91.107.0/32

c) 177.91.107.1/25

d)177.91.154/30

19.What is the range of network IPs in which the following given IP resides :194.168.19.65/28 ?

a)194.168.19.64 – 194.168.19.87

b)194.168.19.64 – 194.168.19.79

c)194.167.19.62 – 194 .167.19.87

d)194.168.19.0 - 194.168.19.64

20.Which of the following is the correct host range for the subnet in which we can find the IP

address 192.168.168.188 255.255.255.192 ?

a) 192.168.168.129-191

b) 192.168.168.128-190

c) 192.168.168.128-192

d) 192.168.168.129-190

21.Which protocol does DHCP use at the Transport Layer ?

a)IP

b)UDP

c)TCP

d)ARP

22. Which class of IP address has the most host addresses available by default?

a)A

b)B

c)C

d)A and C

23. Which protocol does Ping use?

a) TCP

b) ARP

c) ICMP

d) IP

24. Which of the following does not use TCP?

a) HTTP

b) DHCP

c) FTP

d) SMTP

25. Which of the following is a private IP address ?

a) 12.0.0.2

b) 168.172.19.40

c) 172.15.14.36

d) 192.168.24.43

26. Which class of IP address provides a maximum of only 254 host addresses per network ID?

a) class A

b) class B

c) class C

d) class B and C

27. Which one is true about ICMP packets ?

a) They are encapsulated within IP datagrams.

b) ICMP is encapsulated within UDP datagrams.

c) They do not provide hosts with information about network problems.

d) They guarantee datagram delivery.

28. Which of the following is considered to be the destination host before translation?

a) Inside local host

b) Outside local host

c) Inside global host

d) Outside global host

29. Which of the following is considered to be the address after translation?

a) Inside local host

b) Outside local host

c) Inside global host

d) Outside global host

30.Which of the following is not a way to configure NAT ?

a)IP NAT pool

b)Static

c)Dynamic

d)NAT overload

31.Which one of the following is not an advantage of using NAT?

a) Conserves legally registered addresses.

b) Translation introduces switching path delays

c) Increases flexibility when connecting to the Internet

d) Reduces address overlap occurrence

32.Which one is true about NAT ?

a) Causes loss of end-to-end IP traceability

b) Does not conserve legally registered addresses

c) Decreases flexibility when connecting to the Internet and certain applications will not function with NAT enabled

d)Increases address overlap occurrence

33.Which of the following is true about the IP address 10.16.3.65/23?

a) The subnet address is 10.16.3.0 255.255.254.0

b) The last valid host address in the subnet is 10.16.2.254 255.255.254.0

c) The broadcast address of the subnet is 10.16.3.0 255.255.254.0

d) The lowest host address in the subnet is 10.16.2.1 255.255.254.0

34.Which of the following are valid subnet addresses ?

a)177.91.107.0 ,177.92.107.97, 177.92.107.144

b)177.91.107.0 , 1.0.0.0 , 0.0.0.0

c)191.91.168.1 , 177.91.107.152, 177.91.168.127

d)177.91.107.0 , 177.91.107.144, 1.0.0.112

35. What is the maximum number of IP addresses that can be assigned to hosts on a local subnet that uses the 255.255.255.224 subnet mask?

a)14

b)15

c)16

d)30

36.What does a mask /28 mean?

a) the maximum number of IP addresses that can be assigned to hosts is 16

b) the maximum number of IP addresses that can be assigned to hosts is 14

c) the maximum number of IP addresses that can be assigned to hosts is 8

d) the maximum number of IP addresses that can be assigned to hosts is 30

37.A submask /30 can be given to :

a) a subnet with 3 PC's, connected to a router by a switch

b) a subnet with 2 PC's and a Server , connected to a router by a switch

c) a subnet with 2 PC's connected directly to the router

d) a subnet with 2 routers connected

38. You need to subnet a network that has 7 subnets, each with at least 16 hosts. Which classful subnet

mask would you use?

a) 255.255.255.192

b) 255.255.255.224

c) 255.255.255.240

d) 255.255.255.252

39. You have an interface on a router with the IP address of 192.168.192.10/29. Including the router

interface, how many hosts can have IP addresses on the LAN attached to the router interface?

a)6

b)7

c)8

d)14

40. The network address of 172.16.0.0/19 provides how many subnets and hosts?

a) 7 subnets, 30 hosts each

b) 8 subnets, 8,190 hosts each

c) 8 subnets, 2,046 hosts each

d) 7 subnets, 2,046 hosts each

42. Which of the following affirmations about UDP is not true ?

a. Writes packets of bytes

b. No read bytes from a packet are lost

c. Neither party can overflow the other. Traffic is controlled by the OS

d. Not read bytes from a packet are lost

43. Which one is not a principle to the OSI model?

 a. A layer should be created where a different abstraction is needed.

 b. Each layer should perform a well-defined function.

c. The layer boundaries should be chosen to maximize the information

flow across the interfaces.

 d. The function of each layer should be chosen with an eye toward

defining internationally standardized protocols.

44. Which of the following layers, controls the operation of a subnet and handles

how packets are routed from source to destination ?

a. The Network Layer

 b. The Transport Layer

 c. The Session Layer

 d. The Presentation Layer

45. Which protocol handles mail exchange?

 a.FTP

 b.TELNET

 c.SSH

d.SMTP

46. Which one of the following is a Natural Mask?

 a. 255.255.255.255

 b. 255.255.255.0

 c. 255.255.255.128

 d. 255.255.255.64

47. IP - best effort protocol - does its best effort to transfort datagram

from one machine to another with no guarantee of an

 a. Successful delivery

 b. Duplication/Unicity

 c. Data integrity

 d. All of the above

48. Which affirmation is not true about The Network Address Translation:

 a. No need to be allocated range of addresses from ISP:- just one IP address is used for all devices

 b. Can change addresses of devices in local network without notifying outside world

 c. Can change ISP only by changing addresses of devices in local network

 d. devices inside local net not explicitly addressable, visible by outside world

49. Which of the following affirmations about TCP is not true?

 a. Client process must first be running

 b. Server must have created socket that welcomes clientís contact

 c. Allows server to talk with multiple clients

 d. Source port numbers are used to distinguish clients

50. IP Routing is based on the:

 a. Source IP

 b. Destination IP

 c. Network Address

 d. Broadcast Address

51. Which is not a Service of a Data Link Layer?

 a.Framing and link access

 b.Flow Control

 c.Error Correction

52. Consider a network 60.20.30.0/24. Computers within the network have the default gateway

60.20.30.1, which is the ip of the router. The DNS server has the ip 60.20.30.2 and has the

following entries in the DNS Table

google.ro 120.30.4.5

mywebsite.ro 60.20.30.3

A computer having the ip 60.20.30.4 opens the web browser and visits the website

mywebsite.ro.

What is the packet route through the network?

a) 60.20.30.4 -> 60.20.30.1 -> 60.20.30.3 -> 60.20.30.1 -> 60.20.30.3 -> 60.20.30.2 -> 60.20.30.4

b) 60.20.30.4 -> 60.20.30.2 -> 60.20.30.1 -> 60.20.30.3 -> 60.20.30.4 -> 60.20.30.2 -> 60.20.30.4

c) 60.20.30.4 -> 60.20.30.1 -> 60.20.30.2 -> 60.20.30.3 -> 60.20.30.1 -> 60.20.30.4

d) 60.20.30.4 -> 60.20.30.1 -> 60.20.30.2 -> 60.20.30.1 -> 60.20.30.4 -> 60.20.30.1 ->

60.20.30.3 -> 60.20.30.1 -> 60.20.30.4

53. What are the protocols involved in sending an email?

a) FTP

b) SMTP

c) TCP

d) POP3

e) HTTP

54. TCP stands for...

a) Transfer Control Protocol

b) Transmission Connection Protocol

c) Transformation Central Protocol

d) Transmission Control Protocol

55. What is a datagram?

a) A structure used to get data from the user in order to synchronize the server

b) A basic transfer unit used in packet-switched networks, providing a connectionless

comunnication service

c) Information that can harm your computer if you're not careful with it

d) Millions of bytes configured in a big cluster which can be easily transferred

56. ARP can be used for...

a) Mapping network addresses to physical (MAC) addresses

b) Mapping public virtual addresses to private ip addresses

c) Publishing websites to the internet

d) Sending emails very fast

57. TCP, UDP and SCTP are part of

a) Application Layer

b) Internet Layer

c) Transport Layer

d) Link Layer

58. TCP Header contains the following entries:

a) Source Port, Destination Port, Sequence Number, Acknowledgement Number, Flags, Data

Offset, Checksum, Urgent Pointer - corect

b) Source IP, Destination IP, Pointer to MAC address, Connection unique identifier, Router IP, NAT

tables

c) Source Port, Destination Port, Length, Checksum

d) Source Mac, Destination Mac, Connection object, Checksum, Data hash

59. A company has three departments: Offices, Public and Managers.

The offices have 123 computers, Public Relationship has 30 computers and Managers have 6

computers.

The company wants to make a network such that:

 - every computer has access to internet

 - have minimum costs

 - it must be certainly known from which department some webpages are accesed from

the HQ in another city

Provide a good configuration for these requirements:

a) 3 subnetworks, 192.168.0.0/24, 192.168.1.0/24, 192.168.2.0/24 for every department and

connect every subnet directly to the internet, using NAT, through a different provider

b) 3 subnetworks, 192.168.0.0/25, 192.168.0.128/27, 192.168.0.160/29 and connect them to a

central router which translates all the ips on 192.168.0.0/24 with the ip 30.0.0.5

c) 1 subnetwork for all the company, 192.168.0.0/24, connect computers to internet through a

router which translates every address ip to a public ip address with different class depending on department

d) 3 subnetworks, 192.168.0.0/25, 192.168.0.128/27, 192.168.0.160/29, one router which translates first network to 30.0.0.1, second to 30.0.0.2, and third to 30.0.0.3 - corect

60. What would be a network security recommandation?

a) Forwarding all traffic from the router ports to computer ports

b) Activate firewall and use good firewall rules

c) Use the default router password, everybody will expect that you change it, so not changing it is a good strategy

d) Allow RDP connections on your computers

61. What is DSL and what it is used for?

a) Digital Subscriber Line; used to give access to internet through telephone lines

b) Digital Supplier Limit; verifies if the maximum connected users in a wi-fi network has been reached

c) Describer Serial Link; used for serial cables to assure their connectivity in a network

d) Destination Source Limit; limits the number of packets sent and received, used for security reasons

62. What is the difference between a switch and a hub?

a) The hub sends a packet specifically to an end point or more, the switch broadcasts the message to all the network

b) The switch sends a packet specifically to an end point or more, the hub broadcasts the message to all the network

c) The hub can send packets on large distances, but the switch is generally for home usage

d) There is no difference

63. The last address of IP address represents?

A. Broadcast

B. Network

C. Unicast address

D. Multicast

64. Which of the following IP addresses class is multicast?

A. Class A

B. Class B

C. Class C

D. Class D

65. Which of the following is correct regarding Class B address of IP address

A. Network 18 , Host 16

B. Network 14 , Host 16

C. Network 16 , Host 14

D. Network 12 , Host 14

66. How many layers are in TCP/IP ?

A. 7 layers

B. 4 layers

C. 6 layers

D. 5 layers

67. IPv4 Address is

A. 64 bit

B. 16 bit

C. 48 bit

D. 32 bit

68. DNS is the abreviation for

A. Dynamic Network System

B. Domain Name System

C. Domain Network Server

D. Dynamic Name System

69. What is the size of a MAC address?

A. 16 bits

B. 32 bits

C. 48 bits

D. 64 bits

70. MAC address is the example of?

A. Transport layer

B. Data link layer

C. Application layer

D. Physical layer

71. For error detection in TCP/IP we use?

A. Bit sum

B. Check sum

C. Error Flag

D. Error bit

72. The mount of data that can be carried in a given time is called?

A. Capacity

B. Scope

C. Bandwith

D. Limitation

73. What is the size of Host in Class B of an IP address?

A. 4

B. 8

C. 16

D. 32

74. What is the use of the ping command?

A. To test if your connection is wired or wireless

B. To test a device on the network is reachable

C. To get your MAC address

D. To get your IP address

75. What is a normal mask for a Class C network?

A. 255.255.255.1

B. 255.255.255.128

C. 255.255.0.0

D. 255.255.255.0

76. What does a protocol defines?

A. What data is communicated

B. How data is communicated

C. When data is communicated

D. None of the above

77. What is the use of Subnetting?

A. It divides one network into several smaller networks

B. It divides a network into network classes

C. It speeds upthe network

D. All of the above

79. What is TTL?

a) Time To Leave

b) Total Time Limit

c) Time To Live

d) Time Tracking Limit

80. The following system calls are/is optional at the level of a TCP client:

e) socket()

f) listen()

g) bind()

h) connect()

81. Which one/ones of the following addresses have to be identical for all computers located in the same local network(from a physical and logic point of view)

a) Network address

b) Broadcast address

c) IP address

d) MAC address

82. The ARP protocol helps with:

a) Determining the IP address when the MAC address is known

b) Determining the MAC address when the IP address is known

c) Determining the IP address when the DNS server is known

83. DHCP is a client/server protocol that automatically provides an Internet Protocol host with its:

a) IP address

b) Subnet mask

c) MAC address

d) Default gateway

84. The maximum number of hosts a network with the netmask 255.255.255.224 is capable of supporting is:

a) 2^(number of zeros in netmask)

b) 32

c) 30

d) 16

85. The natural mask for a class A address is :

a) 255.255.255.0

b) 255.226.255.0

c) 255.0.0.0

d) 255.255.0.0

86. Consider the following netmask: 255.255.0.0, the network part(network length) is formed by a number of bits equal to:

a) 24

b) 16

c) 8

d) Impossible to determine

87. Which of the following describes 'big endian'?

A. most significant byte first

B. most significant byte last

C. least significant byte in the middle

D. most significant byte in the middle

c

E. None of the above.

88. Which of the following describes 'little endian'?

A. least significant byte first

B. least significant byte last

C. least significant byte in the middle

D. most significant byte in the middle

E. None of the above.

89. What is the in-memory representation of 56E2 in little endian?

A. 56E2

B. E256

C. 2E65

D. 652E

90. What is the in-memory representation of 56E2 in big endian?

A. 56E2

B. E256

C. 2E65

D. 652E

91. How many bytes does 'double' use?

A. 1 byte

B. 4 bytes

C. 8 bytes

D. 16 bytes

92. How many bytes does 'float' use?

A. 1 byte

B. 4 bytes

C. 8 bytes

D. 16 bytes

93. What does TCP/IP stand for?

A. Transport Control Protocol/Internet Protocol

B. Transmission Check Protocol/Internet Protocol

C. Transmission Control Protocol/Inverse Protocol

D. Transmission Control Protocol/Internet Protocol

94. What type of connection does SOCK_STREAM indicate?

A. TCP connection

B. UDP connection

C. Closed connection

D. Open connection

95. What type of connection does SOCK_DGRAM indicate?

A. TCP connection

B. UDP connection

C. Closed connection

D. Open connection

96. What does UDP stand for?

A. User Defined Protocol

B. User Datalink Protocol

C. User Datagram Protocol

D. Utility Datagram Protocol

97. What does DNS stand for?

A. Dynamic Name Server

B. Dynamic Name System

C. Domain Name Server

D. Domain Name System

98. How many different network layers are there (according to the OSI Reference Model)?

A. 7 layers

B. 4 layers

C. 5 layers

D. 9 layers

E. The number of layers can vary.

99. The 4 bottom network layer (according to the OSI Refererence Model), in order, are the following:

A. Physical, Data link, Network, Transport

B. Physical, Network, Data link, Transport

C. Physical, Data link, Transport, Network

D. Data link, Physical, Network, Transport

100. What does FTP stand for?

A. File Transmission Protocol

B. File Transfer Protocol

C. File Translocation Protocol

D. Folder Transmission Protocol

101. What is FTP used for?

A. It is a protocol used to check if the datalink layer is working proberly.

B. Transfering files over a network.

C. It is a protocol used by mail servers.

D. Accessing the WEB, sending HTML pages.

102. What does SSH stand fro?

A. Secure Shell Hook

B. Structured Shell Hook

C. Secure Shell

D. Structured Shell

103. What is SSH used for?

A. Remote connection to the terminal / command line of another computer (remote command).

B. Transfering files over a network.

C. It is a protocol used by mail servers.

D. Accessing the WEB, sending HTML pages.

104. What is SMTP used for?

A. Remote connection to the terminal / command line of another computer (remote command).

B. Transfering files over a network.

C. It is a protocol used by mail servers (mail Excahange).

D. Accessing the WEB, sending HTML pages.

105. What does P2P stand for?

A. Peer to Peer.

B. Point to Point.

C. Point to Peer.

D. Peer to Point.

106. What is the maximum bandwith, the maximum amount of data that the optical fiber can carry?

A. 100 Mb/s

B. 1000 Mb/s

C. 100 000 Mb/s

D. There is no maximum.

107. Since optical fiber has no limit in bandwith, what is a plausible reason for your lower internet speed?

A. There is a limit to how much end devices can send an receive.

B. Your router/modem is limited.

C. You don't use fiber.

D. The contract with your ISP limits your bandwith.

E. All answers are correct.

108. If I have a zip of size 1024 bytes and a connection of 32 bits/second to the computer I want to send the zip to, how long would it take for the zip to be sent?

A. 128 seconds 256?!

B. 1 second

C. 10 seconds

D. 1024 seconds

109. What kind of signal flows through the optical fiber cable have?

A. Electro-magnetic waves

B. Light waves

C. Both are of the above

D. Electric current

110. What type of physical signal does the wireless transmission use?

A. Electro-magnetic waves

B. Light waves

C. Both are of the above

D. Electric current

111. How long is an IPv4 address?

A. 4 bytes

B. 32 bytes

C. 16 bytes

D. 8 bytes

112. What does TLD stand for?

A. Total Level Domain

B. Total Level Distribution

C. Top Level Domain

D. Top Level Distribution

113. What does ISP stand for?

A. Internet Server Protocol

B. Inverse Service Protocol

C. Internet Service Provider

D. Internet Server Provider

114. Which of the following is a valid domain name?

A. nontendo.com

B. nds.nontendo.com

C. nds.nontendo.ro

D. All anssers are correct

115. What does ROTLD stand for?

A. Romanian Top Level Domain

B. Russian Overview Top Level Domain

C. Romanian Total Level Domain

D. Romanian Top Level Distribution

116. What is the 'Whois Query' used for?

A. Checking if a domain name is already bought or not.

B. Checking if a domain name has a server active and running.

C. Checking if an IP is present on a network.

D. Getting the IP of a domain name.

117. Which of the following represents an FTP (File Transfer Protocol)?

A. The TCP/IP

B. The SMB or SAMBA Protocol

C. The SSH Protocol

D. The SMTP

118. What is HTML?

A. HTML is a langauge that is used to descirbe web pages.

B. HTML is a language used for server programming.

C. HTML is a language used for browser programming.

D. All of the above are true.

119. Which of the following is a correct mac address?

A. 12-34-56-78-90-AB-CD

B. G2-H3-24-13-12-3E

C. G2-H3-24-13-12-3E-CD

D. 12-34-56-78-90-AB

120. What command would you use to find your network adapter's mac address if you are on windows?

A. ipconfig

B. arp /d

C. ipconfig /all

D. All of the above would work.

121. What does ARP stand for?

A. Address Resolution Protocol

B. Address Refresh Protocol

C. Address Reconstructuion Protocol

D. Address Read Protocol

122. What dose LAN stand for?

A. Local Address Network

B. Local Address Name

C. Local Area Network

D. Local Area Name

123. What command would you use to test the Datalink Layer to see if it works (on Windows)?

A. arp /a

B. ipconfig /all

C. ipconfig

D. arp /d

E. All answers are correct.

124. Which of the following IP sets belong to 209.220.186.12/255.255.255.252 ip class?

A. 209.220.186.12, 209.220.186.13, 209.220.186.14, 209.220.186.15

B. 209.220.186.13, 209.220.186.14, 209.220.186.15, 209.220.186.16

C. 209.220.186.12, 209.220.186.13, 209.220.186.14, 209.220.186.15, 209.220.186.16,

209.220.186.17, 209.220.186.14, 209.220.186.18

D. 209.220.186.10, 209.220.186.11, 209.220.186.12, 209.220.186.13, 209.220.186.14,

209.220.186.15, 209.220.186.16, 209.220.186.17

125. Which of the following is a valid IP/Netmask combination?

A. 209.220.186.8/255.255.255.240

B. 209.220.186.8/255.255.255.0

C. 209.220.186.8/255.255.255.248

D. 209.220.186.8/255.255.255.252

E. C and D are both correct. ???

126. How many bits of zero does the following netmask have? 255.255.255.248

A. 2 bits

B. 3 bits

C. 4 bits

D. 8 bits

127. Which is the correct binary representation of the following netmask? 255.255.255.128

A. 11111111 11111111 11111111 10000000.

B. 11111111 11111111 11111111 11110000.

C. 11111111 11111111 11111111 11000000.

D. 11111111 11111111 11111111 00000000.

128. What is the netmask for the following IP class? 192.168.0.0/24

A. 255.255.255.128

B. 255.255.255.0

C. 255.255.0.0

D. 255.0.0.0

E. All netmasks are correct.

129. What is the netmask for the following IP class? 10.10.0.0/17

A. 255.255.255.128

B. 255.255.255.0

C. 255.255.128.0

D. 255.255.0.0

E. All netmasks are correct.

130. How do you find the network address if you have the network mask and one random IP address in the network?

A. You 'and' the netmask and the random IP

B. You 'or' the netmask and the random IP

C. You add the netmask and the random IP

D. You 'xor' the netmask and the random IP

131. What will you get if you 'or' together the natmaks of a network and one random IP in the network?

A. The ip class.

B. The first IP in the class of the random IP.

C. The last IP in the class of the random IP.

D. Nothing significant.

132. What does NAT stand for?

A. Network Address Translation

B. Name Address Translocation

C. Network Area Translation

D. Network Area Translocation

E. Name Area Translocation

133. Which of the following involve NAT?

A. Prot forwarding.

B. Accessing the web from an internal network. Your PC's network will be translated to your public IP (i. e. home network)

C. Both answers involve NAT.

134. Are mac addressed guaranteed to be unique?

A. No, buying the same type of a network adapter twice (from an online store) means you get the same mac address.

B. No, the mac address is software related.

C. Depends on the network adapter you have.

D. Yes, because mac addresses are burned into the ROM of the network adapter.

135. What is a private IP address?

 a) It's an IP address that does not have a netmask;

b) It's an IP address that is reserved for internal use behind a router or NAT device, apart from the public;

c) It's an IP address that your device receives when connecting to public networks;

 d) It's an IP address that has the following form: 127.0.x.x.

136. Which is the range for an IP address of class B?

 a) 191-220;

 b) 127-190;

c) 128-191;

d) 128-192.

137. What is the broadcast address of the following IP address 221.17.123.9 that has in its

network 42 computers?

 a) 221.17.123.255;

 b) 255.255.255.255;

c) 221.17.123.64;

d) 221.17.123.65.

138. What is the use of the ARP protocol?

 a) To determine the IP address when we know the MAC address;

b) To determine the MAC address when we know the IP address;

c) To determine the IP address when we know the IP address of the DNS server;

 d) To determine the MAC address when we know the default gateway.

139. What does UDP stand for?

a) User Datagram Protocol;

 b) Universal Datagram Packets;

 c) Unique Destination Protocol;

 d) Undefined Destination Packets.

140. What is the subdomain for the top level domain for the following DNS address:

"linux.scs.ubbcluj.ro"?

 a) "linux";

 b) "scs";

c) "ubbcluj";

 d) "ro".

141. Which is the difference between bandwidth and throughput?

a) The bandwidth is the physical property of the transmission medium, while

throughput represents the amount of data which we transmit

b) There is no difference between them;

d) The bandwidth represents the amount of data which we transmit, while throughput

is the physical property of the transmission medium.

142. What is a broadcast MAC address?

 a) It's a logical address which identifies only one recipient;

 b) It's a logical address which is used to identify all the computers within a network;

 c) It's a logical identifier for a group of hosts in a computer network that are available

to process data-grams.

143. In how many subclasses with the netmask 255.192.0.0 can the class of minimal dimension

containing both IP addresses: 78.79.80.81 and 79.80.81.82, be divided?

 a) 7;

 b) 10;

 c) 8;

 d) 9.

144. Which are the layers of the TCP/IP model?

 a) Application layer, transport layer, session layer, network access layer;

 b) Application layer, transport layer, internet layer, network access layer;

 c) Application layer, presentation layer, session layer, transport layer, network layer,

data-link layer, physical layer;

 d) Application layer, internet layer.

145. Which of the following does not describe a socket?

a. an internal endpoint for sending or receiving data at a single node ina computer.

b. a door between the application process and end-to-end transport protocol

c. a process that sends and receives data at a single node in a computer

146. How do we obtain the starting address of a network from a given IP?

a. OR logic between IP given and NOT netmask

b. AND logic between IP given and NOT netmask

c. AND logic between IP given and netmask

147. Which is the order of the five-layer Internet protocol stack ?

a. Application, Transport, Network, Link, Physical

b. Network, Transport, Application, Link, Physical

c. Application, Transport, Link, Network, Physical

148. UDP vs. TCP flow control: Which statement is false?

a. UDP: one part can overflow, which results in lost packets

b. TCP: Traffic is controlled by the OS

c. TCP: one part can overflow but there are no lost packets

149. What is the length of the TCP header?

a. 32

b. 64

c. 20

150. What does a routing table contain?

a. source address, destination address, gateway, interface

b. interface, netmask, destination address, gateway

c. source address, destination address, netmask, gateway

151. What is Throughtput?

a. quantity of data which we send at some point through a transmission channel

b. quantity of data over quantity of time which we send at a given time through a transmission channel

c. the capacity of data transportation that we send through a transmission channel

152. What does traceroute?

a. shows all IPs of the routers parsed until the current IP

b. shows all IPs parsed until the current router IP

c. shows the IP route of the last 5 parsed

153. What is a congestion window?

a. a sender impose window implemented to avoid overrunning some routers in the middle of the network path

b. a window managed by the receiver; that grows when each segment is sent

c. a window that controls flow moving of the sender

154. Which of these addresses is not private?

a. 10.255.189.255

b. 172.168.0.1

c. 192.168.255.255

155. What is checksum?

a. is a 16-bit field used on the header and data to check for errors.

b. is a 32-bit field used for error checking of data and IP address

c. is a 16-bit flag used for error checking of the header and data

156. Which of the addresses is a valid private address?

a. 10.255.256.0/29

b. 10.255.255.0/28

c. 193.168.0.0/29

157. Which is the third level in the OSI Refference Model Layer?

a. Network

b. Session

c. Transport

158. Which is the network address of the second subnet of a network having 93 computers,

where the first contains 22 computers, and starts from 192.168.0.0?

a. 192.168.0.33

b. 192.168.0.32

c. 192.168.0.24

159. The natural mask for a class B address is:

a. 255.0.0.0

b.255.255.0.0

c.255.255.255.0

160. The last network address is reserved for the .broadcast

161. The size of a class C IP Adresses per network is .256. Hosts.

162. DHCP stands for Dynamic Host Configuration Protocol.

163. The network address of the third subnet of a network having 93 computers that starts from

192.168.0.0, where the first contains 22 computers and the second has 10 hosts is (192.168.0.48)

164. The networks can be classified on the types of transmission as circuit switching and packet Switching.

165. What is a property of a computer network?

a. all components are linked to a router.

b. all components are interconnected.

c. all components are linked using a coaxial cable.

d. it has only PCs and workstations.

166. Which of the following is NOT a computer network?

a. The Internet.

b. Worldwide telephone system.

c. A PC connected to headphones.

d. Telephone system.

167. If AB12 is represented in big endian as AB12, what is its representation in little endian?

a. 21BA.

b. 12BA.

c. BA21.

d. 12AB.

168. If 43ED is represented in big endian as AB12, what is its representation in little endian?

a. DE34.

b. ED43.

c. DE43.

d. ED34.

169. What function call you don't find in an UDP server?

a. recvfrom.

b. bind.

c. sendto.

d. accept.

170. What happens with the bytes that are not read by a TCP server?

a. Are lost forever.

b. Are sent back to source.

c. Stay avalaible for next read.

d. Are transfered to a special location in the network.

171. How many bits have an IP address?

a. 64.

b. 32.

c. 4.

d. 16.

172. Which of the following is NOT a valid IP netmask combination?

a. 168.220.186.8/225.255.225.252.

b. 156.198.186.8/255.255.255.254.

c. 209.198.186.8/255.255.255.246.

d. 168.220.186.64/255.255.255.240.

173. When you have an ip address and the network mask what operation you need to do in order to find out the network address?

a. or between ip and netmask.

b. and between ip and netmask.

c. divide the ip by the mask.

d. you can't find the network address.

174. Which of the following is NOT a valid IP netmask combination?

a. 168.220.186.8/225.255.225.252.

b. 156.198.186.16/255.255.255.254.

c. 209.198.186.8/255.255.255.248.

d. 168.220.186.8/255.255.255.240.

175. Which of the following is a class C IP address?

a)10.10.14.118

b) 135.23.112.57

c)191.200.199.199

d)204.67.118.54

176. UDP packets are encapsulated in:

a) en Ethernet frame

b) a TCP segment

c)an IP diagram

d)none of the above

177. Which of the following functions does UDP perform?

a)process to process communication

b)improve the data transfer rate of large files (compared to TCP)

c)assure that the sent messages arrive in the order that have been sent

d)protect the data sent against any corruption while transferring it.

178. Which of the following is not an application layer protocol?

a)HTTP

b)IMAP

c)SMTP

d)TCP

179. A one-to-all communication between one source and all hosts on a network can be classified

as:

a)unicast communication

b)broadcast communication

c)multicast communication

d) anycast communication

180. The data link layer takes packets from ………….. and encapsulated them into frames for

transmission

a) network layer

b)physical layer

c) transport layer

d) application layer

181. FTP uses the following channels:

a) the delta channel

b) the control channel

c) the bearer channel

d) the data channel

182. Which IP address class can have 64 000 subnets with 64 000 hosts/subnet?

a)class A

b) class B

c) class C

d) class D

183. Which can be an Ethernet physical address?

a)07:01:02:01:2C:4B

b) 07:01:02:01:2C:4B:2C

c) 07:02:01:2C:4B

d)none of the above

184. The underlying transport layer protocol used by SMTP:

a)TCP

b)UDP

c)both TCP and UDP

d)none of the above

185. In HTTP Protocol, a client can directly connect to a server using:

a)Web

b)Domain

c)TELNET

d)HTTP

TRUE/FALSE:

• Internet API is a set of rules that the sending program must follow so that the Internet

can deliver the data to the destination program. (T/F)

• UDP is used together with IP when small amounts of information are involved but it uses

more system resources than TCP (T/F)

• When configuring email clients, an Internet address for an SMTP server must be entered.

(T/F)

• File Transfer Protocol (FTP) provides the transmission in encrypted form to provide security for sensitive data. (T/F)

• The Open System Interconnection (OSI) model defines a networking framework to implement protocols in layers, with control passed from one layer to the next. (T/F)

• The Transport Layer manages the mapping between these logical addresses and physical addresses. In IP networking, this mapping is accomplished through the Address Resolution Protocol (ARP). (T/F)

• The maximum number of IP addresses that can be assigned to hosts on a local subnet that uses the 255.255.255.224 subnet mask is 40. (T/F)

• The subnetwork address of a host with an IP address of 172.16.66.0/21 is 172.16.64.0.(T/F)

• To test the IP stack on your local host, you would ping the IP address 127.0.0.0 (T/F) 127.0.0.1

• A switch does not keep a record of the MAC addresses of the devices connected to it.(T/F)

Complete with the correct word/s:

1. The UDP _header_ identifies the destination port and a reply port.

2. TCP/IP allows a packet to be sent without waiting for the _acknowledgement_ of the previous packet.

3. A 10/100Mbps hub must share its_bandwidth_ with each and every one of its ports.

4. A router is typically connected to at least two networks, commonly two _LAN_ or_WAN_ or a LAN and its ISP'S network .

5._Taceroute_ is a Computer Network diagnostic tool for displaying the route (path) and measuring transit delays of packets across an (IP) network.

6. A _protocolo_ defines the format and the order of messages exchanged between two or more communicating entities.

7. The TCP/IP_checksum_is used to detect corruption of data over a TCP or IPv4 connection.

8._Congestion_in a network may occur when the load on the network is greater than the capacity of the network.

9. HTTP Protocol allows exchange of ……… and ……….

10. Address Resolution Protocol (ARP) is a protocol for mapping an …………..to a …………………….that is recognized in the local network.

5. UDP guarantees datagram delivery :

a) True

b) False

6. The socket type used by TCP is SOCK_STREAM

a) True

b) False

7. With UDP, one party can overflow the other => lost packets

a) True

b) False

8. The connect system call is normally called by the client process in order to connect to a server process.

a) True

b) False

9. The listen system call indicates to the protocol that the client process is ready to accept new incoming connections on the socket

a) True

b) False

10. At the level of a TCP client, the bind system call is mandatory

a) True

b) False

11. The high order bits of an IP Address represent the host part.

a) True

b) False

12. All the hosts from the same network can physically reach each other without an intervening router.

a) True

b) False

13. A network address can be determined based on a IP Address from the network and the netmask

a) True

b) False

14. Always, in a class of addresses, the first and last IP addresses are reserved.

a) True

b) False

15. For connecting a host with a private address to the Internet, it has to be translated to a public address, process named ARP.

a) True

b) False

16. 172.16.0.0/12 refers to a private address space.

a) True

b) False

17. A DNS server is responsible with translating numerical IP addresses to domain names.

a) True

b) False

18. The network address can be obtained from an IP address and the netmask using the

logical operation "OR"

a) True

b) False

19. When NAT is involved, the local network uses just one IP address as far as outside world is

concerned

a) True

b) False

20. The number of IP addreses allocated for each subnet block has to be a power of 4.

a) True

b) False

21. 209.220.186.8/255.255.255.248 is a invalid IP/Netmask combination

a) True

b) False

22. The default gateway serves as an access point or IP router that a networked computer

uses to send information to a computer in the same network or the Internet.

a) True

b) False

19. A 255.255.255.240 netmask is capable of supporting 16 hosts.

a) True

b) False

23. A computer uses HTTP to look up domain names and get the associated IP address.

a) True

b) False

24. There is no routing based on MAC addresses

a) True

b) False

25. A proxy server acts as an intermediary for requests from clients seeking resources from other servers

a) True

b) False

26. The combination DNS server = Default Gateway is not possible

a) True

b) False

27.A collection of computers (PCs, Workstations) and other devices interconnected represent a computer network.

A. True

B. False

28. Hosts (computers), links (coaxial cable, twisted pair, optical fiber, radio, satellite), switches/ routers (intermediate systems) are all components of a computer system.

A. True

B. False

29. Big Endian means 'most significant byte first' while little endian means 'least significant byte first.

A. True

B. False

30. SOCK_STREAM is used for UDP connections.

A. True

B. False

31. SOCK_DGRAM is used for UDP connections.

A. True

B. False

32. The optical fiber cable theoretically has unlimited bandwith.

A. True

B. False

33. Every domain name that is not already in use is free to claim as your own.

A. True

B. False

34. 255.255.255.128 starts with 1 zero and ends with 7 zeroes.

A. True

B. False

35. 255.255.255.128 ends with 7 zeroes.

A. True

B. False

36. Port forwarding is a use of NAT.

A. True

B. False

37. Mac addresses are not guaranteed to be unique.

A. True

B. False

#SWITCH

TRUE/FALSE

1.Un switch are mai multe porturi

2.Un switch nu intelege adrese MAC

3.Un switch intelege adrese MAC

4.Un switch este mai performant ca un hub

5.Un switch poate transporta pachete UDP

6.Un switch nu poate transporta pachete TCP

7.Un switch poate transporta pachete UDP

8.Un switch nu poate transporta pachete UDP

9.Un switch poate transporta pachete TCP

10.Un switch poate transporta pachete IP

11.Un switch nu poate transporta pachete IP

#HUB

1.Un hub nu intelege adrese MAC

2.Un hub este mai performant ca un switch

3.Un hub nu are mai multe porturi

4.Un hub intelege adrese MAC

5.Un hub are mai multe porturi

#ADRESA-MAC

1. Apelul recvfrom() trimite date catre serverul UDP

2.Adresa MAC este reprezentata pe 6 cifre hexa.

3.Adresa MAC este reprezentata pe 6 grupuri de 2 cifre hexa.

4.Adresa MAC este reprezentata pe 6 octeti.

5.Adresa MAC nu poate fi schimbata.

6.Adresa MAC poate fi schimbata.

7.FF:FF:FF:FF:FF este adresa MAC de broadcast.

172.31.255.255 nu este o adresa IP privata

8.00:00:00:00:00:00 nu este adresa MAC de broadcast.

9.Routerele folosesc adrese MAC pentru a transmite cadrele catre alte retele

10.255.255.255.255 este adresa MAC de broadcast.

11.Adresa MAC este reprezentata pe 12 cifre hexa.

12.255.255.255.255 nu este adresa MAC de broadcast

13.FF:FF:FF:FF:FF:FF este adresa MAC de broadcast

14.Toate placile de reţea au aceeasi adresa MAC (Media Access Control address)

15.FF:FF:FF:FF:FF nu este adresa MAC de broadcast.

16.Adresa MAC are un numar de 64 de biti

17.FF:FF:FF:FF:FF:FF nu este adresa MAC de broadcast

#NIVEL LINK TRANSPORT APLICATIE RETIA

1.SSH nu este situat la nivelul Link

2.SSH nu este situat la nivelul Transport

3.SSH nu este situat la nivelul Retea

4.SSH este situat la nivelul Transport

5.SSH este situat la nivelul Link

6.SSH este situat la nivelul Retea

7.SSH nu este situat la nivelul Aplicatie

8. SSH este situat la nivelul Aplicatie

-SHH NU

1.IP este situat la nivelul Transport

2.IP este situat la nivelul Aplicatie

3.IP este situat la nivelul Retea

4.IP este situat la nivelul Link

5.IP nu este situat la nivelul Transport

6.IP nu este situat la nivelul Retea

7.IP nu este situat la nivelul Aplicatie

8.IP nu este situat la nivelul Link

-Ip DA(RETEA)

1.HTTP este situat la nivelul Link

2.HTTP nu este situat la nivelul Aplicatie

3.HTTP nu este situat la nivelul Link

4.HTTP este situat la nivelul Transport

5.HTTP este situat la nivelul Aplicatie

6.HTTP nu este situat la nivelul Transport

7.HTTP nu este situat la nivelul Retea

-HTTP DA(Aplicatie)

1.SMTP nu este situat la nivelul Retea

2.SMTP este situat la nivelul Transport

3.SMTP este situat la nivelul Retea

4.SMTP nu este situat la nivelul Link

5.SMTP este situat la nivelul Retea

6.SMTP nu este situat la nivelul Transport

7.SMTP este situat la nivelul Aplicatie

8.SMTP este situat la nivelul Link

9.SMTP nu este situat la nivelul AplicatiE

-SMTP DA(Aplicatie)

1.DNS nu este situat la nivelul Aplicatie

2.DNS nu este situat la nivelul Link

3.DNS nu este situat la nivelul Retea

4.DNS nu este situat la nivelul Transport

5.DNS este situat la nivelul Link

6.DNS este situat la nivelul Transport

7.DNS este situat la nivelul Aplicatie

8.DNS este situat la nivelul Retea

-DNS DA(Aplicatie)

1.FTP nu este situat la nivelul Link

2.FTP nu este situat la nivelul Transport

3.FTP nu este situat la nivelul Retea

4.FTP nu este situat la nivelul Aplicatie

5.FTP este situat la nivelul Transport

6.FTP este situat la nivelul Retea

7.FTP este situat la nivelul Link

-FTP NU

1.TCP este situat la nivelul Aplicatie

2.TCP este situat la nivelul Retea

3.TCP nu este situat la nivelul Link

4.TCP este situat la nivelul Transport

5.TCP nu este situat la nivelul Retea

6.TCP nu este situat la nivelul Transport

7.TCP nu este situat la nivelul Aplicatie

-TCP DA(TRANSPORT)

1.UDP nu este situat la nivelul Retea

2.UDP este situat la nivelul Retea

3.UDP este situat la nivelul Aplicatie

4.UDP nu este situat la nivelul Aplicatie

5.UDP este situat la nivelul Transport

6.UDP este situat la nivelul Link

7.UDP nu este situat la nivelul Link

8.UDP nu este situat la nivelul Transport

-UDP DA(Transport)

#Adresa-de-retea

1.Adresa 192.168.0.255 nu poate fi adresa de retea

2.Adresa 127.0.0.1 poate fi adresa de retea.

3.Adresa 193.231.20.2 poate fi adresa de retea-

4.Adresa 193.256.20.0 poate fi adresa de retea

5.Adresa 193.231.20.1 poate fi adresa de retea

7.Adresa 193.231.20.3 poate fi adresa de retea

8.Adresa 43.29.45.80/27 poate fi adresa de retea

9.Adresa 192.168.2.160/24 poate fi adresa de retea

10.Adresa 43.23.87.68/26 poate fi adresa de retea

11.Adresa 192.168.2.160/25 poate fi adresa de retea

12.Adresa 192.168.0.255 poate fi adresa de retea

1.Adresa 193.255.20.0 poate fi adresa de retea

2.Adresa 193.231.20.0 poate fi adresa de retea

3.Adresa 193.231.20.4 poate fi adresa de retea

4.Adresa 192.168.2.32/27 poate fi adresa de retea

5.Adresa 43.23.87.64/27 poate fi adresa de retea

6.Adresa 192.168.2.128/25 poate fi adresa de retea

1.Adresa de retea se poate calcula pe baza adresei de broadcast si a netmask-ului-

2.Adresa de retea se poate calcula pe baza adresei de broadcast si a adresei IP-

3.Adresa de retea nu se poate calcula pe baza adresei de broadcast si a netmask-ului-

4.Adresa de retea nu se poate calcula pe baza adresei IP si a netmask-ului-

5.Adresa de retea nu se poate calcula pe baza adresei de broadcast si a adresei IP-

6.Adresa de retea se poate calcula pe baza adresei IP si a netmask-ului-

1.Nu exista mai multe calculatoare cu adresa 127.0.0.1-

#Adresa-privata

1.Toate adresele IP din clasa 172.0.0.0/8 sunt private

2.Nu toate adresele IP din clasa 172.0.0.0/8 sunt private

3.168.168.168.168 este o adresa IP privata

4.168.168.168.168 nu este o adresa IP privata

5.1.1.1.1 este o adresa IP privata

6.Nu toate adresele IP din clasa 10.0.0.0/6 sunt private

7.127.16.0.1 nu este o adresa IP privata

8.Toate adresele IP din clasa 172.0.0.0/12 sunt private

9.127.16.0.1 este o adresa IP privata-

10.172.32.0.1 este o adresa IP privata-

8.1.1.1.1 nu este o adresa IP privata-

9.172.15.0.1 nu este o adresa IP privata-

10.Nu toate adresele IP din clasa 192.168.0.0/8 sunt private

1.Toate adresele IP din clasa 172.16.0.0/12 sunt private

2.172.16.0.1 nu este o adresa IP privata

3.172.31.0.1 nu este o adresa IP privata

4.Nu toate adresele IP din clasa 192.168.0.0/16 sunt private-

5.Toate adresele IP din clasa 10.0.0.0/16 sunt private-

6.192.168.168.168 nu este o adresa IP privata-

7.172.31.255.255 este o adresa IP privata-

8.172.31.255.255 nu este o adresa IP privata

9.Nu toate adresele IP din clasa 10.0.0.0/8 sunt private-

10.10.10.10.10 este o adresa IP privata-

11.Toate adresele IP din clasa 10.0.0.0/8 sunt private

12.172.16.0.1 este o adresa IP privata-

13.Nu toate adresele IP din clasa 172.16.0.0/12 sunt private-

14.192.168.168.168 este o adresa IP privata

15.Nu toate adresele IP din clasa 10.0.0.0/16 sunt private

1.Prescurtarea CLI vine de la Command Line Interface-

2.ARP inseamna Address Resolution Proocol-

3.MAC inseamna media access control.

4.DNS inseamna Domain Name System-

1.Doua calculatoare din Internet pot sa aiba aceeasi adresa IP daca au aceeasi adresa MAC

2.LAN reprezinta un acronim pentru: Limited Area Network-

3.HTTP inseamna Hyperspeed Transfer Protocol-

4.HTTP inseamna Hypertext Transfer Protocol

5.MAC inseamna media address control.

6.MAC inseamna media address control-

7.Prescurtarea CLI vine de la Coding Line Interface-

8.ARP nu inseamna Address Resolution Proocol-

#Protocolul

1.HTTP nu foloseste protocolul TCP-

2.HTTP foloseste protocolul UDP-

3.DNS foloseste protocolul TCP -

4.DNS foloseste protocolul UDP-

5.HTTP foloseste protocolul TCP

#Orientare-conexiune

1.UDP este orientat conexiune

2.UDP nu este orientat conexiune

3.TCP este orientat conexiune

4.TCP nu este orientat conexiune

#Defaiult-Gateway

1.Default gateway-ul unui calculator este IP-ul serverului din reteaua respectiva

2.Default gateway-ul unui calculator este IP-ul routerului din reteaua respectiva

3.Default gateway-ul unui calculator se afla in aceeasi retea cu el -

4.Default gateway-ul unui calculator nu se afla in aceeasi retea cu el

5.Un calculator poate avea 2 gateway-uri

6.Un server DNS nu poate fi Default Gateway

#Dimensiunea

1.Dimensiunea unei clase de adrese IP nu trebuie sa fie putere a lui 2-

2.Dimensiunea unei clase de adrese IP trebuie sa fie putere a lui 2-

3.Dimensiunea unei retele este 2^n; unde n este numarul de cifre 0 din IP.-

4.Dimensiunea unei retele este 2^n; unde n este numarul de cifre 0 din netmask-

5.Dimensiunea unei retele este 2^n; unde n este numarul de cifre 1 din netmask-

#Calculator

1.Un calculator poate avea mai multe placi de retea-

2.Un calculator poate avea o singura placa de retea-

3.Nu pot exista calculatoare cu adresa 192.168.1.0-

4.Un calculator poate avea mai multe adrese IP-

5.Un calculator nu poate avea 2 gateway-uri

6.Serverul DNS setat pe un calculator trebuie localizat in aceeasi retea cu calculatorul-

7.In LAN nu pot exista mai multe calculatoare cu adresa 192.168.1.1-

8.Pot exista calculatoare cu adresa 192.168.1.0-

9.Doua calculatoare din Internet pot sa aiba aceeasi adresa IP daca au aceeasi adresa MAC-

10.Un calculator poate avea o singura adresa IP-

11.Un calculator de leaga de un switch cu un cablu Straight-Through-

12.Doua calculatoare plasate in aceeasi retea atat din punct de vedere fizic cat si logic nu pot

avea default gateway-uri diferite

13.Un router se leaga de un calculator cu un cablu Cross-Over

#Server

1.Un server web nu poate rula si pe porturi diferite de 80-

2.Serverul DNS setat pe un calculator poate fi localizat in aceeasi retea cu calculatorul-

3.Un server DNS poate fi Default Gateway

4.Pe un acelasi server web nu pot fi gazduite mai multe site-uri web

#Netmask-ul

1.Netmask-ul NU poate contine biti 0 intercalati cu biti de 1-

2.Netmask-ul se poate determina pe baza adresei IP si a adresei de retea-

3.Netmask-ul se poate determina pe baza adresei IP si a adresei de broadcast-

4.0.0.0.0 reprezinta un netmask valid-

5.255.255.224.0 reprezinta un netmask valid-

6.Netmask-ul unei retele cu 1024 adrese ip este /10

7.255.255.0.0 reprezinta un netmask valid

8.O retea cu netmask-ul 255.255.255.0 poate avea maxim 2^8-2=254 calculatoare.

9.Netmask-ul unei retele cu 1024 adrese ip este /12

10.Netmask-ul unei retele cu 512 adrese ip este /23

11.0.0.0.0 nu reprezinta un netmask valid

12.255.254.0.0 reprezinta un netmask valid

13.Netmask-ul nu se poate determina pe baza adresei IP si a adresei de retea

14.Netmask-ul unei retele cu 1024 adrese ip este /22

15.Netmask-ul nu se poate determina pe baza adresei IP si a adresei de broadcast

16.Un netmask este un numar binar pe 48 de biti

17.O retea cu netmask-ul 255.255.255.0 are 2^8=128 ip-uri

18.255.255.225.0 reprezinta un netmask valid

19.Netmask-ul unei retele cu 512 adrese ip este /24-

20.Netmask-ul unei retele cu 1024 adrese ip este /23

21.Netmask-ul se poate calcula pe baza adresei de broadcast si a adresei de retea

22.Netmask-ul poate conţine biţi 0 intercalaţi cu biţi de 1

23.254.255.0.0 reprezinta un netmask valid

24.O retea cu netmask-ul 255.255.255.0 poate avea maxim 2^8=256 calculatoare.-

#Exista

1.Exista si altfel de socketuri decat TCP si UDP

2.Exista doar socketuri TCP si UDP.

3.Un netmask este un numar binar pe 32 de biti-

#127.0.0.1

1.Nu pot exista mai multe calculaoare cu adresa 127.0.0.1

2.Exista mai multe calculatoare cu adresa 127.0.0.1

3.Adresa 127.0.0.1 poate fi adresa de broadcast.

4.127.0.0.1 nu poate fi setata pe un sistem ca default gateway

5.127.0.0.1 nu poate fi setata pe un sistem ca server DNS

5.Localhost nu este 172.0.0.1

6.Localhost este 172.0.0.1

7.Nu pot exista mai multe calculaoare cu adresa 127.0.0.1

8.Adresa 127.0.0.1 nu poate fi adresa de retea

#/etc

1.83.255.255.128.0 = /23=

2.255.255.128.0 = /17.

3.11111111.10000000.00000000.00000000 = 255.128.0.0

4.193.55.44.170 & 255.255.255.128 = 193.55.43.128-

5.11111111.10000000.00000000.00000000 = 255.1.0.0

#Rapiditate

1.TCP este intotdeauna mai rapid ca UDP

2.UDP este uneori mai rapid ca TCP

3.TCP este uneori mai rapid ca UDP

4.UDP este intotdeauna mai rapid ca TCP

5.TCP este mai sigur ca UDP

#Apeluri

1.Apelul accept() este obligatoriu in orice server TCP

2.Apelul accept() este obligatoriu in orice client UDP

3.Apelul accept() poate fi folosit in orice server TCP

4.Apelul accept() este obligatoriu in orice client TCP

5.Apelul accept() nu este obligatoriu in orice client TCP

1.Apelul recvfrom() citeste date de la serverul UDP

2.Apelul recvfrom() citeste date de la serverul TCP

3.Apelul recvfrom() trimite date catre clientul TCP

4.Apelul recvfrom() trimite date catre clientul UDP

5.Apelul recvfrom() nu trimite date catre serverul TCP

6.Apelul recvfrom() nu trimite date catre clientul TCP

7.Apelul recvfrom() trimite date catre serverul UDP

8.Apelul recvfrom() trimite date catre serverul TCP

9.Apelul recvfrom() nu trimite date catre clientul UDP

10.Apelul recvfrom() citeste date de la clientul UDP

11.Apelul recvfrom() citeste date de la clientul TCP

1.Apelul connect() este obligatoriu in orice server TCP

2.Apelul connect() este obligatoriu in orice client UDP

3.Apelul connect() nu poate fi folosit in clienti UDP

4.Apelul connect() nu poate fi folosit in clienti TCP

5.Apelul connect() poate fi folosit in clienti UDP

6.Apelul connect() poate fi folosit in clienti TCP

7.Apelul connect() este obligatoriu in orice server UDP

8.Apelul connect() este obligatoriu in orice client TCP

1.Apelul sendto() trimite date catre clientul UDP

2.Apelul sendto() trimite date catre serverul UDP

3.Apelul sendto() trimite date catre serverul TCP

4.Apelul sendto() trimite date catre clientul TCP

1.Apelul listen() este obligatoriu in orice client TCP

2.Apelul listen() nu este obligatoriu in orice client TCP

3.Apelul listen() este obligatoriu in orice server UDP

4.Apelul listen() poate fi folosit in orice server TCP

5.Apelul listen() este obligatoriu in orice server TCP

1.Apelul bind() poate fi folosit in clienti UDP

2.Apelul bind() poate fi folosit in clienti TCP

3.Apelul bind() nu poate fi folosit in clienti UDP

4.Apelul bind() nu poate fi folosit in clienti TCP

5.Apelul bind() este obligatoriu in orice server TCP

6.Apelul bind() este obligatoriu in orice client TCP

7.Apelul bind() este obligatoriu in orice server UDP

#Clase si Ip-uri

1.O clasa /24 se poate imparti in 2 subclase /25.

2.O clasa de adrese IP trebuie sa inceapa la multiplu de dimensiunea clasei

3.O clasa de adrese IP nu trebuie sa inceapa la multiplu de dimensiunea clasei

4.O clasa /24 se poate imparti in 2 subclase de 128 IP.

5.O clasa /24 se poate imparti in 3 subclase de 128 IP.

6.192.168.2.155 face parte din clasa 192.168.0.0/23

7.192.168.1.2/24 si 192.168.1.6/22 fac parte din aceasi retea

8.O retea cu netmask-ul 255.255.255.0 are 2^8=256 ip-uri.

9.O clasa /24 se poate imparti in 2 subclase de 256 IP.

10.192.168.1.155 face parte din clasa 192.168.1.0/24

11.O clasa /24 se poate imparti in 2 subclase /25.

12.Clasa 193.231.20.0/24 se poate imparti in 2 subclase de 128 IP.

13.192.168.2.155 face parte din clasa 192.168.0.0/22

14.O clasa /16 nu se poate imparti in 16 clase /20

15. O clasa /24 se poate imparti in 3 subclase /26

16. 192.168.1.155 face parte din clasa 192.168.1.0/25

17. 192.168.1.155 face parte din clasa 192.168.0.0/24

18. O clasa /8 se poate imparti in 4 clase /10

19. Clasa 193.231.20.0/24 se poate imparti in 3 subclase de 128 IP

20. 192.168.0.2/24 si 192.168.1.6/24 fac parte din aceasi retea

21. O clasa /16 se poate imparti in 16 clase /20

22. 192.168.0.2/23 si 192.168.1.6/23 fac parte din aceasi retea

23. O clasa /24 se poate imparti in 3 subclase /25

24. 192.168.1.155 face parte din clasa 192.168.0.0/23

25. O clasa /24 se poate imparti in 2 subclase de 512 IP.

26. O clasa /8 se poate imparti in 4 clase /9.

1. Adresa de subretea pentru statia cu adresa IP 192.120.0.1/16 este 192.120.0.1

2. Adresa de subretea pentru statia cu adresa IP 192.120.0.1/16 este 192.120.0.0

#Anonim

2. Nu pot exista calculatoare cu adresa 192.168.1.0

3. Placa de retea functioneaza ca interfata fizica între calculator si cablul de retea

4. LAN este o retea globala

5. LAN nu este o retea globala

6. Telefoanele mobile nu se pot conecta la Internet fara placa de retea

7. Adresa de subretea pentru statia cu adresa IP 192.120.0.1/16 este 192.120.0.1

9. Operatia logica AND între masca si adresa IP are ca rezultat adresa de broadcast

10. Adresa IP nu se poate determina pe baza adresei de retea si a netmask-ului

11. UDP asteapta confirmarea primirii pachetelor

12. Exista si altfel de socketuri decat TCP si UDP

13. UDP este mai sigur ca TCP

14. Routerele folosesc adrese IP pentru a transmite cadrele catre alte reţele

15. Un punct de acces wireless are o raza de acoperire limitata

16. Pe un acelasi server web pot fi gazduite mai multe site-uri web

17. O adresa IP este un numar binar pe 32 de biti

18. Un router se leaga de un calculator cu un cablu Straight-Through

19. TCP asteapta confirmarea primirii pachetelor

20. O adresa de IP este un identificator unic pentru fiecare calculator într-o retea IP

21. Placa de retea nu transmite datele catre alte calculatoare

22. Un socket UDP se creeaza cu parametrii AF_INET and SOCK_DGRAM

23.O adresa de IP este un identificator comun pentru mai multe calculatoare într-o reţea IP

24.Adresa IP se poate determina pe baza adresei de retea si a netmask-ului

25.In LAN pot exista mai multe calculatoare cu adresa 192.168.1.1

1.Un socket UDP se creeaza cu parametrii AF_INET si SOCK_DGRAM

2.Un socket TCP se creeaza cu parametrii AF_INET si SOCK_DGRAM

1.Serviciul DNS ruleaza pe portul TCP 53

2.Serviciul DNS ruleaza pe portul UDP 53

1.Un socket UDP se creeaza cu parametrii AF_INET si SOCK_STREAM

2.Un socket TCP se creeaza cu parametrii AF_INET si SOCK_STREAM

1.HTTPS transmite datele criptat

2.HTTP transmite datele criptat

1.LAN este o retea globala

2.LAN nu este o retea globala

1.O placa de retea poate avea o singura adresa IP

2.O placa de retea poate avea mai multe adrese IP

#Broadcast

1.Adresa 87.35.15.63/26 poate fi adresa de broadcast

2.Adresa de broadcast se poate calcula pe baza adresei de retea si a netmask-ului

3.Adresa de broadcast se poate determina pe baza adresei IP si a netmask-ului

4.Adresa 83.35.15.8/28 poate fi adresa de broadcast

5.Adresa 127.0.0.1 nu poate fi adresa de broadcast.

6.Adresa de broadcast nu se poate calcula pe baza adresei de retea si a netmask-ului

7.Adresa 87.35.15.7/29 poate fi adresa de broadcast

8.Adresa de broadcast pentru statia cu adresa IP 192.120.0.1/16 este 192.120.255.255

HTTP inseamna Hyperspeed Transfer Protocol

O retea cu netmask-ul 255.255.255.0 poate avea maxim $2^8-2=126$ calculatoare.

Un socket UDP se creeaza cu parametrii AF_INET and SOCK_STREAM

Adresa 87.35.15.63/25 poate fi adresa de broadcast

Un calculator de leaga de un swith cu un cablu Cross-Over

Operaţia logica AND între masca şi adresa IP are ca rezultat adresa reţelei

Apelul accept() este obligatoriu in orice server UDP

HTTP este situat la nivelul Retea

Adresa IP nu se poate determina pe baza adresei de retea si a netmask-ului

172.0.0.1 este o adresa IP privata

11111111.11111111.11111100.00000000 = 255.255.252.0

HTTP inseamna Hypertext Transfer Protocol

Placa de reţea funcţioneaza ca interfaţa fizica între calculator şi cablul de reţea

Placa de retea poate sa fie si externa

O clasa /8 se poate imparti in 4 clase /10.

172.31.0.1 este o adresa IP privata

Dimensiunea unei retele este 2^n; unde n este numarul de cifre 0 din netmask.

Dimensiunea unei retele este 2^n; unde n este numarul de cifre 1 din netmask

Topologia de tip Bus consta; dintr-un singur cablu; care conecteaza in serie; toate calculatoarele din retea

Doua calculatoare din Internet nu pot sa aiba sub nici o forma aceeasi adresa IP

Adresa 43.29.45.132/27 poate fi adresa de retea

Doua calculatoare plasate in aceeasi retea atat din punct de vedere fizic cat si logic pot avea default gateway-uri diferite

Adresa de broadcast nu se poate determina pe baza adresei IP si a netmask-ului

LAN nu reprezinta un acronim pentru: Limited Area Network

172.0.0.1 nu este o adresa IP private