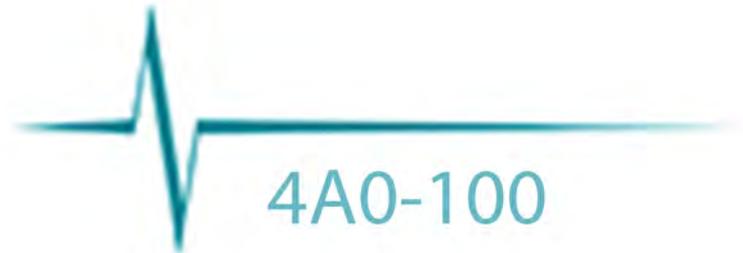


NOKIA



## Nokia IP Networks and Services Fundamentals



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# **Nokia**

## **Exam 4A0-100**

### **Nokia Scalable IP Networks**

**Version: 9.0**

**[ Total Questions: 309 ]**

**Topic break down**

<b>Topic</b>	<b>No. of Questions</b>
<b>Topic 1: Volume A</b>	<b>112</b>
<b>Topic 2: Volume B</b>	<b>97</b>
<b>Topic 3: Volume C</b>	<b>100</b>

**Topic 1, Volume A**

**Question No : 1 - (Topic 1)**

You are working from a particular Command Line Interface (CLI) context, and want to see the commands available from your current context. What command can you issue to view this information?

- A. view tree
- B. tree
- C. info detail
- D. info

**Answer: B**

**Question No : 2 - (Topic 1)**

Which of the following best describes the operation of the Media Dependent Adapter (MDA)?

- A. The MDA contains the flexible fast path complex used for forwarding data.
- B. Excess data is discarded by the MDA and the remaining data forwarded for QoS processing.
- C. The MDA buffers data and applies Quality of Service (QoS) to classify and treat the data appropriately.
- D. The MDA converts data from its incoming physical format into an internal format and provides some minimal buffering.

**Answer: D**

**Question No : 3 - (Topic 1)**

The physical networks connecting two PCs to the internet are DSL and PPP respectively. Which layer will enable the two PCs to communicate?

- A. Layer 1
- B. Layer 2
- C. Layer 3

D. Layer 4

**Answer: C**

**Question No : 4 - (Topic 1)**

A 24 port Ethernet switch is configured with VLAN 100 on ports 1 - 8, VLAN 200 on ports 9 - 16 and VLAN 300 on ports 17 - 24. Which of the following describes the behavior of the switch when a broadcast frame is received on port 1?

- A. The switch will discard the broadcast frame because there is no specific destination address.
- B. The switch will flood the broadcast frame on all ports on which the switch has seen frames from attached devices
- C. The switch will flood the broadcast frame on ports 2 to 8.
- D. The switch will flood the broadcast frame on all 24 ports.

**Answer: C**

**Question No : 5 - (Topic 1)**

What must occur for a LAG to become operational?

- A. There must be multiple ports assigned to the LAG.
- B. All ports in the LAG must be configured with the same characteristics.
- C. Auto-negotiation must be enabled on all ports in the LAG.
- D. All of the above.

**Answer: B**

**Question No : 6 - (Topic 1)**

When entering a command on the Alcatel-Lucent 7750 SR from the Command Line Interface (CLI), what would you use to list all the options for the command?

- A. ?
- B. tab character

- C. space character
- D. info

**Answer: A**

**Question No : 7 - (Topic 1)**

What is the basic unit of framing in SDH and the bit rate for its transmission?

- A. STM-1 with a bit rate of 1.544 Mbit/s
- B. STM-1 with a bit rate of 2.048 Mbit/s
- C. STM-1 with a bit rate of 51.84 Mbit/s
- D. STM-1 with a bit rate of 155.52 Mbit/s

**Answer: D**

**Question No : 8 - (Topic 1)**

Which compact flash on a Control/Switch processor of an Alcatel-Lucent 7750 router stores the runtime image and running configuration?

- A. CF 1
- B. CF 2
- C. CF 3
- D. Both A and B

**Answer: C**

**Question No : 9 - (Topic 1)**

Why is the address field in a PPP header always set to "11111111"?

- A. PPP supports multipoint access networks with many stations. The all 1's acts as a broadcast.
- B. PPP supports multipoint access networks with many stations. The all 1's acts as a multicast.
- C. PPP supports point-to-point networks only. The address field is fixed.

D. PPP supports point-to-point networks only. The address field can change dynamically since every station is assigned a PPP address.

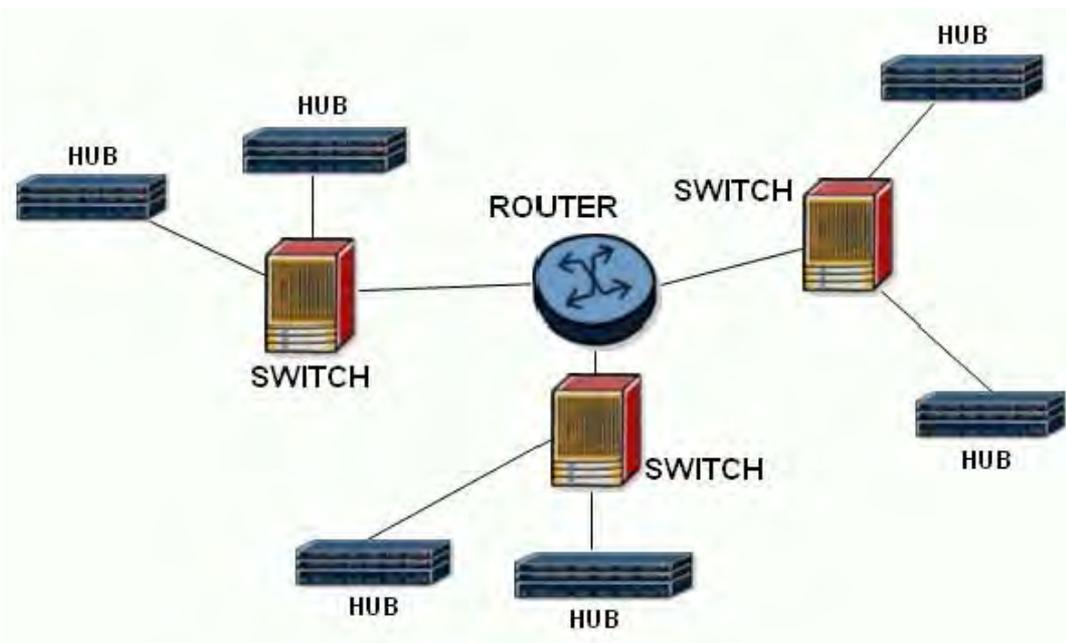
Answer: C

**Question No : 10 - (Topic 1)**

Click the Exhibit Button below:

An Ethernet Local Area Network (LAN) consists of the components shown in the diagram below:

How many broadcast and collision domains are on this LAN?



- A. 9 broadcast domains, 3 collision domains.
- B. 3 broadcast domains, 3 collision domains.
- C. 3 broadcast domains, 9 collision domains.
- D. 1 broadcast domain, 9 collision domains.

Answer: C

**Question No : 11 - (Topic 1)**

Which of the following statements is TRUE about ICMP?

- A. An IP datagram is encapsulated within an ICMP header.
- B. ICMP messages can only be generated by routers.
- C. ICMP messages are encapsulated within an IP datagram.
- D. ICMP guarantees delivery of a message.

**Answer: C**

**Question No : 12 - (Topic 1)**

A typical Alcatel-Lucent 7750 SR Media Dependent Adapter (MDA) interfaces with:

- A. A Small Form-Factor Pluggable (SFP) module.
- B. The Central Processing Unit (CPU).
- C. The Control Plane.
- D. The Switch Fabric.

**Answer: A**

**Question No : 13 - (Topic 1)**

What characteristic of IP addressing creates a hierarchical network?

- A. All hosts on all networks must have unique host numbers.
- B. IP addresses identify a host and the network on which it resides.
- C. Clients are assigned 32-bit addresses and servers 64-bit addresses.
- D. Router, switch and host addresses are drawn from unique address classes.

**Answer: B**

**Question No : 14 - (Topic 1)**

Which ATM adaptation layer is commonly used for transporting IP datagrams or non-real time data?

- A. AAL0

- B. AAL1
- C. AAL2
- D. AAL3/4
- E. AAL5

**Answer: E**

**Question No : 15 - (Topic 1)**

What is the name for an organization that provides Internet services to its customers?

- A. A large corporation.
- B. An ISP.
- C. A home based business.
- D. A content provider.

**Answer: B**

**Question No : 16 - (Topic 1)**

Address summarization reduces the routing table size by:

- A. Allowing a contiguous block of network addresses to be represented by one network prefix.
- B. Increasing the number of addresses in the routing table.
- C. Summarizing addresses in the network into smaller routing tables.
- D. Not advertising directly connected routes.

**Answer: A**

**Question No : 17 - (Topic 1)**

Public IP address spaces are distributed by which of the following organizations?

- A. Network Solutions INC
- B. IANA
- C. IETF

- D. ITU-T
- E. IEEE

**Answer: B**

**Question No : 18 - (Topic 1)**

If a 4-port LAG is configured with the option of 'port-threshold 2' and 'action down' what will happen if the total operational links in the LAG is 2?

- A. If dynamic-cost is enabled it will adjust the cost for routing protocols such as OSPF.
- B. If dynamic-cost is not enabled it will adjust the cost for routing protocols such as OSPF by dividing the link bandwidth by 2.
- C. The LAG will be changed to an operational state of 'down'.
- D. The LAG will function with only 2 ports. There will be no change to the routing metric.

**Answer: C**

**Question No : 19 - (Topic 1)**

A Class C network is defined by a:

- A. 32-bit network prefix.
- B. 24-bit network prefix.
- C. 16-bit network.
- D. 8-bit network.

**Answer: B**

**Question No : 20 - (Topic 1)**

Complete the following sentence: The introduction of the subnet address added another:

- A. Layer of hierarchy in the addressing structure.
- B. Class to the classful addressing system.
- C. 16-bit number to accompany the IP address.
- D. 4,294,967,296 addresses to the IP address space.

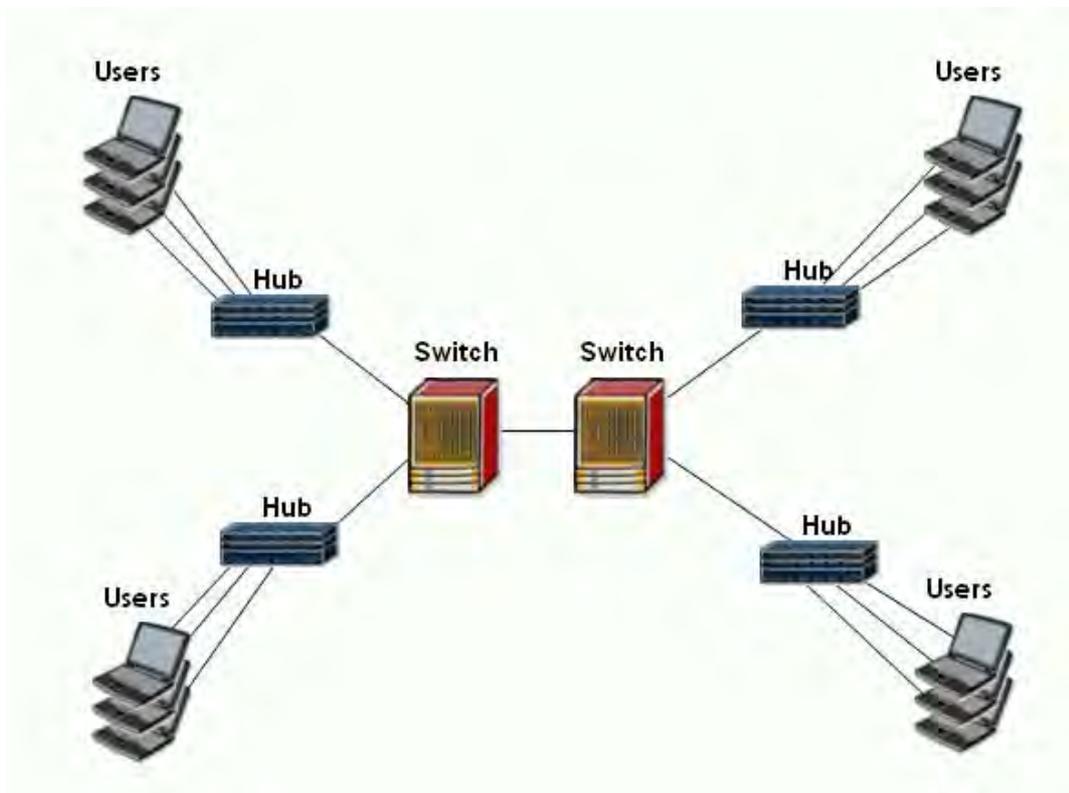
Answer: A

**Question No : 21 - (Topic 1)**

(Click the Exhibit Button below) An Ethernet Local Area Network (LAN) consists of the following components:

Four 24-port hubs & Two 16-port switches

How many broadcast domains are on this LAN?



- A. 1
- B. 2
- C. 5
- D. 32

Answer: A

**Question No : 22 - (Topic 1)**

When a device in an IP network receives an echo request message that is destined for itself, it then:

- A. Estimates the round trip-time.
- B. Generates an echo reply.
- C. Calculates the data loss statistics.
- D. Verifies the data field of the message.

**Answer: B**

**Question No : 23 - (Topic 1)**

Which organization eventually became the standards body for IP and related protocols?

- A. IEEE
- B. IETF
- C. NSFNET
- D. ITU-T
- E. APNIC

**Answer: B**

**Question No : 24 - (Topic 1)**

Given the Mac Address 00-20-60-ce-2b:28, which part is the Organizationally Unique Identifier (OUI)?

- A. 2b:28
- B. 00-20
- C. ce-2b:28
- D. 00-20-60

**Answer: D**

**Question No : 25 - (Topic 1)**

Which of the following is true of Ethernet half-duplex transmission?

- A. Half-duplex transmission is less efficient because the frame MTU is smaller.
- B. Half-duplex transmission is only 30-40% efficient because of collisions.
- C. Ethernet switches support half-duplex transmission only.
- D. All of the above.

**Answer: B**

**Question No : 26 - (Topic 1)**

Hosts in the same IP network share which common address feature?

- A. Same host numbers.
- B. Same IP address.
- C. First two bits of the IP address are set to 01.
- D. Same network prefix.

**Answer: D**

**Question No : 27 - (Topic 1)**

Which of the following is an important advantage of protocol layering? (Choose two.)

- A. Controls distribution of IP addresses.
- B. Simplifies protocol functionality.
- C. Isolates changes in lower layers from upper layers.
- D. Increases protocol operational efficiencies.
- E. Layering adds to the fragmentation of the data

**Answer: C,D**

**Question No : 28 - (Topic 1)**

Which of the following is NOT an example of a Layer 2 protocol?

- A. POS
- B. IP
- C. ATM

- D. Frame Relay
- E. Ethernet

**Answer: B**

**Question No : 29 - (Topic 1)**

How is Ethernet II different from Ethernet 802.3?

- A. Ethernet 802.3 can only be used on point-to-point links, while Ethernet II can be used on broadcast networks.
- B. In Ethernet II the 2 bytes after the source MAC address is used as a type indicator. In Ethernet 802.3 these two bytes indicate the length of the frame.
- C. In Ethernet 802.3, the 2 bytes after the source MAC address is used as a type indicator. In Ethernet II these two bytes indicate the length of the frame.
- D. Ethernet II and Ethernet 802.3 are two different names for the same protocol

**Answer: B**

**Question No : 30 - (Topic 1)**

Which of the following best describes the function of an ARP cache within the same subnet?

- A. Used by IP to map an unknown IP address to the known hardware address of the distant host.
- B. Adds only an IP address entry for an unknown device on the same subnet.
- C. Transmits ICMP messages to multiple hosts with unknown IP addresses.
- D. Resolves the MAC address of a host device given its IP address.

**Answer: D**

**Question No : 31 - (Topic 1)**

The 201.148.26.0/24 network is subnetted using a /26 mask. How many subnets and host addresses will you obtain with this mask?

- A. 4 subnets, 64 hosts
- B. 64 subnets, 4 hosts
- C. 4 subnets, 62 hosts
- D. 64 subnets, 2 hosts
- E. 6 subnets, 30 hosts

**Answer: C**

**Question No : 32 - (Topic 1)**

Given a network address of 116.14.0.0, which of the following is a valid host address when using the subnet mask 255.255.255.240?

- A. 116.14.17.16
- B. 116.14.17.31
- C. 116.14.17.192
- D. 116.14.17.189

**Answer: D**

**Question No : 33 - (Topic 1)**

Which of the following statements is TRUE regarding the development of the OSI Reference Model?

- A. OSI was developed as an alternative, open standard to IBM's SNA model.
- B. OSI protocols were no longer used after TCP/IP was developed.
- C. OSI model is much simpler than TCP/IP.
- D. OSI model is maintained exclusively by the IETF.

**Answer: A**

**Question No : 34 - (Topic 1)**

What is the preference value in the routing table used for?

- A. It indicates the preferred egress interface.