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2.[2016.Nov. 300-101 Exam Questions & Answers:<https://1drv.ms/b/s!AvI7wzKf6QBjgQU3MiuxP2dJi8Wo> QUESTION 58A network engineer notices that transmission rates of senders of TCP traffic sharply increase and decrease simultaneously during periods of congestion. Which condition causes this? A. global synchronizationB. tail dropC. random early detectionD. queue management algorithm Answer: AExplanation:TCP global synchronization in computer networks can happen to TCP/IP flows during periods of congestion because each sender will reduce their transmission rate at the same time when packet loss occurs. Routers on the Internet normally have packet queues, to allow them to hold packets when the network is busy, rather than discarding them.Because routers have limited resources, the size of these queues is also limited. The simplest technique to limit queue size is known as tail drop. The queue is allowed to fill to its maximum size, and then any new packets are simply discarded, until there is space in the queue again. This causes problems when used on TCP/IP routers handling multiple TCP streams, especially when bursty traffic is present. While the network is stable, the queue is constantly full, and there are no problems except that the full queue results in high latency. However, the introduction of a sudden burst of traffic may cause large numbers of established, steady streams to lose packets simultaneously.[http://en.wikipedia.org/wiki/TCP\\_global\\_synchronization](http://en.wikipedia.org/wiki/TCP_global_synchronization) QUESTION 59Which three problems result from application mixing of UDP and TCP streams within a network with no QoS? (Choose three.) A. starvationB. jitterC. latencyD. windowingE. lower throughput Answer: ACEExplanation:It is a general best practice not to mix TCP-based traffic with UDP-based traffic (especially streaming video) within a single service provider class due to the behaviors of these protocols during periods of congestion. Specifically, TCP transmitters will throttle-back flows when drops have been detected. Although some UDP applications have application-level windowing, flow control, and retransmission capabilities, most UDP transmitters are completely oblivious to drops and thus never lower transmission rates due to dropping. When TCP flows are combined with UDP flows in a single service provider class and the class experiences congestion, then TCP flows will continually lower their rates, potentially giving up their bandwidth to drop-oblivious UDP flows. This effect is called TCP-starvation/UDP-dominance. This can increase latency and lower the overall throughput.TCP-starvation/UDP-dominance likely occurs if (TCP-based) mission-critical data is assigned to the same service provider class as (UDP-based) streaming video and the class experiences sustained congestion. Even if WRED is enabled on the service provider class, the same behavior would be observed, as WRED (for the most part) only affects TCP-based flows.Granted, it is not always possible to separate TCP-based flows from UDP-based flows, but it is beneficial to be aware of this behavior when making such application-mixing decisions.  
[http://www.cisco.com/warp/public/cc/so/neso/vpn/vpnsp/spqsd\\_wp.htm](http://www.cisco.com/warp/public/cc/so/neso/vpn/vpnsp/spqsd_wp.htm) QUESTION 60Which method allows IPv4 and IPv6 to work together without requiring both to be used for a single connection during the migration process? A. dual-stack methodB. 6to4 tunnelingC. GRE tunnelingD. NAT-PT Answer: AExplanation:Dual stack means that devices are able to run IPv4 and IPv6 in parallel. It allows hosts to simultaneously reach IPv4 and IPv6 content, so it offers a very flexible coexistence strategy. For sessions that support IPv6, IPv6 is used on a dual stack endpoint. If both endpoints support Ipv4 only, then IPv4 is used.Benefits: Native dual stack does not require any tunneling mechanisms on internal networks ?Both IPv4 and IPv6 run independent of each otherDual stack supports gradual migration of endpoints, networks, and applications.  
[http://www.cisco.com/web/strategy/docs/gov/IPV6at\\_a\\_glance\\_c45-625859.pdf](http://www.cisco.com/web/strategy/docs/gov/IPV6at_a_glance_c45-625859.pdf) QUESTION 61Which statement about the use of tunneling to migrate to IPv6 is true? A. Tunneling is less secure than dual stack or translation.B. Tunneling is more difficult to configure than dual stack or translation.C. Tunneling does not enable users of the new protocol to communicate with users of the old protocol without dual-stack hosts.D. Tunneling destinations are manually determined by the IPv4 address in the low-order 32 bits of IPv4-compatible IPv6 addresses. Answer: CExplanation:Using the tunneling option, organizations build an overlay network that tunnels one protocol over the other by encapsulating IPv6 packets within IPv4 packets and IPv4 packets within IPv6 packets. The advantage of this approach is that the new protocol can work without disturbing the old protocol, thus providing connectivity between users of the new protocol. Tunneling has two disadvantages, as discussed in RFC 6144:Users of the new architecture cannot use the services of the underlying infrastructure. Tunneling does not enable users of the new protocol to communicate with users of the old protocol without dual-stack hosts, which negates interoperability.  
[http://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/enterprise-ipv6-solution/white\\_paper\\_c11-676278.html](http://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/enterprise-ipv6-solution/white_paper_c11-676278.html) QUESTION 62Refer to the exhibit. Which one statement is true? A. Traffic from the 172.16.0.0/16 network will be blocked by the ACL.B. The 10.0.0.0/8 network will not be advertised by Router B because the network statement for the 10.0.0.0/8 network is

missing from Router B.C. The 10.0.0.0/8 network will not be in the routing table on Router B.D. Users on the 10.0.0.0/8 network can successfully ping users on the 192.168.5.0/24 network, but users on the 192.168.5.0/24 cannot successfully ping users on the 10.0.0.0/8 network.E. Router B will not advertise the 10.0.0.0/8 network because it is blocked by the ACL. Answer: EExplanation: You can filter what individual routes are sent (out) or received (in) to any interface within your EIGRP configuration. One example is noted above. If you filter outbound, the next neighbor(s) will not know about anything except the 172.16.0.0/16 route and therefore won't send it to anyone else downstream. If you filter inbound, YOU won't know about the route and therefore won't send it to anyone else downstream. QUESTION 63Prior to enabling PPPoE in a virtual private dialup network group, which task must be completed? A. Disable CDP on the interface.B. Execute the vpdn enable command.C. Execute the no switchport command.D. Enable QoS FIFO for PPPoE support. Answer: B QUESTION 64A network engineer is configuring a routed interface to forward broadcasts of UDP 69, 53, and 49 to 172.20.14.225. Which command should be applied to the configuration to allow this? A. router(config-if)#ip helper-address 172.20.14.225B. router(config-if)#udp helper-address 172.20.14.225C. router(config-if)#ip udp helper-address 172.20.14.225D. router(config-if)#ip helper-address 172.20.14.225 69 53 49 Answer: AExplanation: To let a router forward broadcast packet the command ip helper-address can be used. The broadcasts will be forwarded to the unicast address which is specified with the ip helper command. ip helper-address {ip address} When configuring the ip helper-address command, the following broadcast packets will be forwarded by the router by default: TFTP -- UDP port 69 Domain Name System (DNS) ? UDP port 53 Time service -- port 37 NetBIOS Name Server -- port 137 NetBIOS Datagram Server -- port 138 Bootstrap Protocol (BOOTP) -- port 67 TACACS UDP port 49 [http://www.cisco-faq.com/163/forward\\_udp\\_broadcasts.html](http://www.cisco-faq.com/163/forward_udp_broadcasts.html) QUESTION 65What is a function of NPTv6? A. It interferes with encryption of the full IP payload.B. It maintains a per-node state.C. It is checksum-neutral.D. It rewrites transport layer headers. Answer: CExplanation: RFC 6296 describes a stateless Ipv6-to-Ipv6 Network Prefix Translation (NPTv6) function, designed to provide address independence to the edge network. It is transport-agnostic with respect to transports that do not checksum the IP header, such as SCTP, and to transports that use the TCP/UDP/DCCP (Datagram Congestion Control Protocol) pseudo-header and checksum NPTv6 provides a simple and compelling solution to meet the address-independence requirement in Ipv6. The address-independence benefit stems directly from the translation function of the network prefix translator. To avoid as many of the issues associated with NAT44 as possible, NPTv6 is defined to include a two-way, checksum-neutral, algorithmic translation function, and nothing else. <http://tools.ietf.org/html/rfc6296> QUESTION 66IPv6 has just been deployed to all of the hosts within a network, but not to the servers. Which feature allows IPv6 devices to communicate with IPv4 servers? A. NATB. NATngC. NAT64D. dual-stack NATE. DNS64 Answer: CExplanation: NAT64 is a mechanism to allow Ipv6 hosts to communicate with Ipv4 servers. The NAT64 server is the endpoint for at least one Ipv4 address and an Ipv6 network segment of 32-bits (for instance 64:ff9b::/96, see RFC 6052, RFC 6146). The Ipv6 client embeds the Ipv4 address it wishes to communicate with using these bits, and sends its packets to the resulting address. The NAT64 server then creates a NAT-mapping between the Ipv6 and the Ipv4 address, allowing them to communicate. <http://en.wikipedia.org/wiki/NAT64> QUESTION 67A network engineer initiates the ip sla responder tcp-connect command in order to gather statistics for performance gauging. Which type of statistics does the engineer see? A. connectionless-orientedB. service-orientedC. connection-orientedD. application-oriented Answer: CExplanation: Configuration Examples for IP SLAs TCP Connect Operations The following example shows how to configure a TCP Connection-oriented operation from Device B to the Telnet port (TCP port 23) of IP Host 1 (IP address 10.0.0.1), as shown in the "TCP Connect Operation" figure in the "Information About the IP SLAs TCP Connect Operation" section. The operation is scheduled to start immediately. In this example, the control protocol is disabled on the source (Device B). IP SLAs uses the control protocol to notify the IP SLAs responder to enable the target port temporarily. This action allows the responder to reply to the TCP Connect operation. In this example, because the target is not a Cisco device and a well-known TCP port is used, there is no need to send the control message. Device A (target device) Configuration configure terminal ip sla responder tcp-connect ip address 10.0.0.1 port 23 [http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla\\_tcp\\_conn.html](http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla_tcp_conn.html) QUESTION 68A network engineer executes the ipv6 flowset command. What is the result? A. Flow-label marking in 1280-byte or larger packets is enabled.B. Flow-set marking in 1280-byte or larger packets is enabled.C. IPv6 PMTU is enabled on the router.D. IPv6 flow control is enabled on the router. Answer: AExplanation: Enabling Flow-Label Marking in Packets that Originate from the Device This feature allows the device to track destinations to which the device has sent packets that are 1280 bytes or larger. [http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6\\_basic/configuration/15-mt/ip6b-15-mt-book/ip6-mtu-path-disc.html](http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipv6_basic/configuration/15-mt/ip6b-15-mt-book/ip6-mtu-path-disc.html) !!!RECOMMEND!!! 1.Braindump2go|2016.Nov. 300-101 Exam Dumps (PDF & VCE) 230Q&As Download: <http://www.braindump2go.com/300-101.html> 2.Braindump2go|2016.Nov. 300-101 Exam Questions & Answers: <https://1drv.ms/b/s!AvI7wzKf6QBjgQU3MiuxP2dJi8Wo>