RAT Test Run

Question 1: A NAT router:

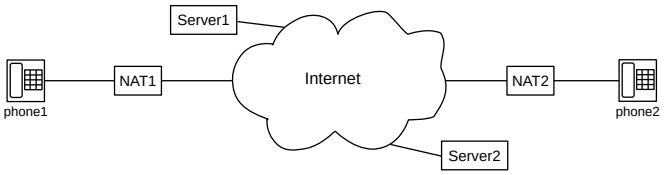
A creates new TCP connections from the internal network in order to reach the Internet with a public IP address

B typically connects to the Internet on one side and to an internal network on the other

C allows a connection generated in the outside world to reach an internal network

D typically connects to the Internet on one side and to public IP addresses on the other

Question 2: Considering the following picture and assuming an existing connection between *server1-phone1* and *server2-phone2*, which statement is correct?



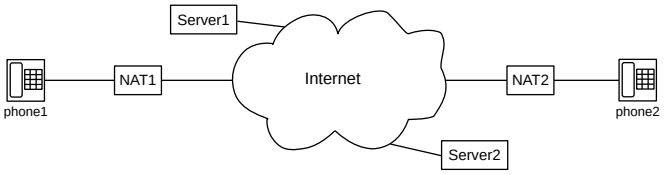
A *server2* can create a P2P connection with *phone1* with the support of *server1*.

B *server2* can create a P2P connection with *phone1* with the support of *phone2*.

C *phone1* can create a P2P connection with *phone2*.

D *server2* can create a P2P connection with *phone1*.

Question 3: Considering the following picture and assuming no connection has been made yet, which statement is correct?



A *phone2* cannot directly contact *server1*

B *phone1* cannot directly contact *server2*

C *phone1* can directly contact *phone2*

D *phone2* cannot directly contact *phone1*

Question 4: Consider the following options and select the one that could serve as a fully functional NAT forwarding table (remote or destination).

A a remote host address, a remote port, an inside port

B a remote host address, an inside host address, an inside port

C a remote port, an outside source port, an inside port

D a remote host address, a remote port, an outside source port, an inside host address, an inside port

Question 5: A typical DHCP lease for a standard network configuration (i.e. capable of connecting to normal Internet services) contains:

A different fields depending on the DHCP lease negotiation

B an IP address, a subnet mask, a default router and a DNS server

C an IP address and a subnet mask

D an IP address, a subnet mask and a default router

Question 6: Assume (CIDR) IPv4 address 223.1.2.0/xx. If we need about 500 IP addresses available for hosts and router interfaces in our network, what is the largest value we can use for xx?

A 26

B 23

C 25

D 24

Question 7: DHCP leases:

A remain the same for each host, even if they expire

B can last only for 3600 seconds and then expire

C expire to allow recycling unused IP addresses

D never expire because they are periodically renewed

Question 8: Considering the subnet address 10.12.4.32/28, which option is correct?

A The mask of this subnet can be represented as 255.255.255.0

B This subnet includes 16 IP addresses (14 hosts), from 10.12.4.32 to 10.12.4.47

C This subnet includes 32 IP addresses (30 hosts), from 10.12.4.0 to 10.12.4.31

D The mask of this subnet can be represented as 255.255.255.128

Question 9: Considering the differences between IPv4 and IPv6 select the correct option:

A IPv6 fragments must be reassembled at each network element before the datagram can be forwarded, while in IPv4 they are reassembled at the destination host.

B Despite increasing the address space from 32 to 128 bit addresses, IPv6 processing at routers can be faster than IPv4 because of its fixed length header among other changes.

C Despite its fixed length header and other changes, IPv6 processing at routers is slower because of its increased address space from 32 to 128 bit addresses.

D IP fragmentation and checksums can be found both in IPv4 and IPv6 versions.

Question 10: In order to obtain a DHCP lease, a newly arriving client will:

A broadcast Discovery and Request message (the others are optional)

B use a dedicated pair of ports for its client/server connection (i.e. a unique pair)

C trigger a Discovery, an Offer, a Request and an Acknowledgement message exchange

D require a known IP address of a DHCP server in the network