

# MikroTik Certified IPv6 Engineer (MTCIPv6E) DUMPS

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1. Which of the following mechanisms encapsulate IPv4 packets into IPv6 packets and transfers them via IPv6 network:

- A. Dual-stack
  - B. 6RD
  - C. 6to4
  - D. DS-lite

**2. The reverse DNS record (PTR) for an IP address 2002:db8:1360:8c01:3::19 is:**

- A. 9.1.0.0.0.0.0.0.0.0.0.0.0.3.0.0.0.0.1.0.c.8.0.6.3.1.8.b.d.0.2.0.0.2.ip6.arpa
  - B. 9.1.0.0.0.0.0.0.0.0.0.0.0.3.0.0.0.0.1.0.c.8.0.6.3.1.8.b.d.0.2.0.0.2
  - C. 9.1..3.0.0.0.1.0.c.8.0.6.3.1.8.b.d.0.2.0.0.2.ip6.arpa
  - D. 9.1.0.0.0.0.0.0.0.0.0.0.0.3.0.0.0.0.1.0.c.8.0.6.3.1.8.d.b.0.2.0.0.2.ip6.arpa

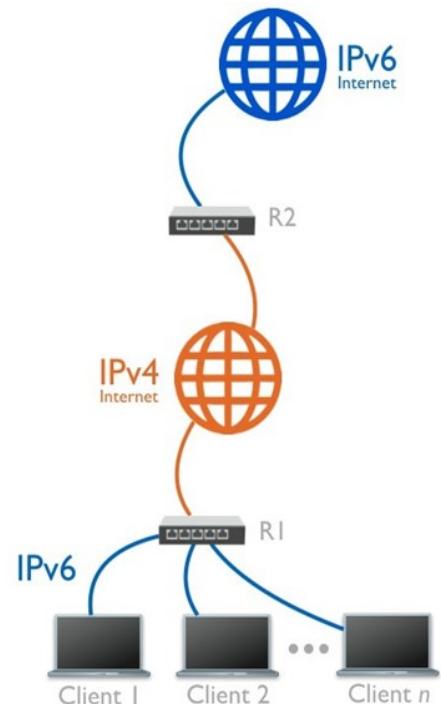
### **3. Observe the attached diagram:**

**There is a router (R1) with a public IPv4 address. The router (R1) does not have routed global unicast IPv6 address.**

There is a router (R2) with fully functioning Dual Stack, it has both public IPv4 and IPv6 addresses and can issue IPv6 prefixes.

To assign routed IPv6 prefixes to the clients which are connected to the router R1 without any changes to the physical implementation of the network, which of the following individual solutions would be suitable (assume that there is a working DHCPv6-PD server on R2, DHCPv6-PD client on R1 and SLAAC on R1 for the clients):

- A. A PPPoE server on R2 and PPPoE client on R1
  - B. An IPIPv6 tunnel with IPsec encryption between R1 and R2
  - C. A 6to4 tunnel between R1 and R2
  - D. A GRE (v4) tunnel without IPsec encryption between R1 and R2



**4. ‘Managed address configuration’ is a part of following Neighbor discovery message type:**

- A. Router solicitation
- B. Neighbor solicitation
- C. Neighbor advertisement
- D. Redirect
- E. Router advertisement**

**5. IPv6 protocol method which is used to find out whether the chosen IP address is already in use by another host:**

- A. Neighbor unreachability detection
- B. Unique address detection
- C. Duplicate address detection**
- D. Duplicate address solicitation
- E. Unique address lookup

**6. Neighbor discovery protocol message type which notifies the host that there is a better route for a destination:**

- A. Router solicitation
- B. Neighbor advertisement
- C. Router advertisement
- D. Redirect**
- E. Neighbor solicitation

**7. The unfragmentable IPv6 data stream part consists of (select all that apply):**

- A. Destination Options (before upper-layer header) extension header
- B. Data
- C. Encapsulating Security Payload extension header
- D. IPv6 header**
- E. Destination Options (before routing header) extension header
- F. Hop-by-Hop Options extension header (if present)**
- G. Routing extension header (if present)**

**8. Address resolution protocol (ARP) is used in IPv4. Which of the following serves similar functions on IPv6:**

- A. Neighbor discovery
- B. ARP
- C. ARIPv6
- D. IPv6 functions without the need of ARP or similar protocol

**9. It is possible to run both DHCP-server (IPv4) and DHCP-PD server (IPv6):**

- A. On the same bridge port
- B. On the same PPPoE interface
- C. On the same bridge interface
- D. On the same physical interface

**10. Network interface has a following MAC address - 31:e5:23:0a:22:82. Automatically generated IPv6 link-local address for this interface will be:**

- A. 2003::31e5:230a:2282
- B. fe80:33e5:23ff:fe0a::2282
- C. 2001::31e5:23ff:fe0a:2282
- D. fe80::31e5:23ff:fe0a:2282
- E. fe80::33e5:23ff:fe0a:2282

**11. The smallest possible MTU size for IPv6 is:**

- A. 1500 bytes
- B. 1280 bytes
- C. 1512 bytes
- D. 1196 bytes

**12. Select the IPv6 address type which is equivalent to the IPv4 private address:**

- A. Global unicast addresses
- B. Unique local addresses
- C. Link local addresses
- D. Teredo

**13. Select correctly written IPv6 address ‘ping’ commands on RouterOS:**

A. /ping6 ff02::1

B. ./ping fe00::101 interface=ether1

C. ./ping 2001:db8::1

D. ./ping ff02::1%wlan1

E. ./ping fe00::101%ether1

F. /ping6 fe00::101

**14. Select which OSI layers have to be initialised in order for DHCP-PD client or DHCPv6 client to work:**

A. Network

B. Physical

C. Data link

D. Segment (TCP)

E. Session

F. Internet

**15. There are 3 interfaces with the same IPv6 link-local address:**

A. Network traffic will be forwarded correctly

B. This setup will not work due to routing conflict

C. It is not possible to have 3 identical link-local addresses on the same router

D. Packets will be multiplicated on all interfaces with the same link-local address

**16. What is the purpose of following IPv6 firewall rules?**

/ipv6 firewall filter

add action=accept chain=input protocol=icmpv6 src-address=fe80::/10

add action=accept chain=input dst-address=fe80::/10 protocol=icmpv6

A. Allow the router to receive messages which originate from or are sent to link-local addresses

B. Allow to send ping messages from the router

C. Forbid router to communicate with other hosts using ICMPv6 protocol

D. Allow the router to receive Neighbor discovery messages

**17. IPv6 header has a fixed size of 40 bytes. To include additional information in the header a special header type is used:**

- A. Next header
- B. Chained header
- C. Add-on header
- D. Extension header**

**18. Privacy Extensions for IPv6 provide additional security through changing IP address periodically. The assigned address is called:**

- A. Temporary address**
- B. Global unicast address
- C. Unique local address
- D. Link local address

**19. A DHCPv6 PD server assigns to its clients:**

- A. IPv6 prefixes**
- B. IPv6 SLAAC addresses
- C. None of the mentioned
- D. IPv6 addresses
- E. /128 IPv6 addresses

**20. Select valid IPv6 destination addresses for default route:**

- A. ff80::/16
- B. ::/0**
- C. 2003::/4
- D. 2000::/3

**21. If 'Other configuration' flag is enabled it means that:**

- A. All IPv6 address information is available only via DHCPv6
- B. Other configuration (e.g. DNS) will be provided by DHCPv6**
- C. Default route information is available via DHCPv6
- D. ALL IPv6 address and other information will be provided by SLAAC

**22. IPv6 loopback interface address is:**

- A. 2a02:610:7501:1000::2
- B. ::1**
- C. 127:0:0::1
- D. 127::1

**23. ‘Other configuration’ is a part of following Neighbor discovery message type:**

- A. Redirect
- B. Neighbor solicitation
- C. Router advertisement**
- D. Router solicitation
- E. Neighbor advertisement

**24. Your router’s IP address is 2001:db8:610:6500::1. To connect to it using WinBox, in what form should you write it in the “Connect to” field:**

- A. [2001:db8:610:6500:0:0:2:1]
- B. [2001:db8:510:6500::1]
- C. (2001:db8:610:6500::1)
- D. 2001:db8:610:6500::1
- E. [2001:db8:610:6500::1]**

**25. Select which IPv6 header field is equivalent to the TTL for IPv4?**

- A. Hop Count
- B. Flow Label
- C. TTLv6
- D. Scan Timer
- E. Hop Limit**