

Nokia Optical Network Specialist (4A0-107)

1. The IP ToS field consists of _____ bits, of which _____ are used. The _____ most significant (first) bits define precedence.

A. 8, 6, 3

B. 8, 8, 6

C. 16, 8, 4

D. 8, 6, 4

E. 24, 16, 8

Answer(s): A

2. Which of the following are examples of metrics for QoS?

A. Signal degradation, attenuation, line loss

B. Latency, FIFO, WRED

C. Delay, jitter, packet loss

D. SNR, queue depth, latency

E. Attenuation, dispersion, latency

Answer(s): C

3. What is the 6-bit binary representation of DSCP value AF21?

A. 010011

B. 100010

C. 010001

D. 001100

E. 010010

Answer(s): E

4. Which of the following statements regarding DSCP bits are TRUE? (Choose three)

A. The three most significant (first) bits define 8 forwarding classes.

B. The three least significant (last) bits of the DSCP specify the drop probability.

C. The full 8 bits of the TOS field are used for DSCP.

D. To convert DSCP to IP precedence, the three most significant (first) bits are matched.

E. DSCP provides for eight drop probabilities.

Answer(s): A B D

5. Which of the following can be used as classifiers of customer traffic? (Choose three)

A. DSCP value

B. 802.1p value

C. IP DF bit

D. TCP/UDP port numbers

E. HTML version number

Answer(s): A B D

6. Which of the following are characteristics of DSCP? (Choose two)

A. DSCP is part of the Layer 3 header.

B. DSCP is a 6-bit field.

C. DSCP specifies eight different priorities.

D. DSCP specifies four precedence levels.

E. DSCP is part of the Layer 2 header

F. DSCP specifies 128 different per-hop behaviors.

Answer(s): A B

7. What is an SLA? (Choose two)

- A. An SLA is used to provide automated, real-time testing and alarming for throughput, latency, and jitter across a provider's network.
- B. An SLA is an agreement between a customer and a provider that dictates the treatment of customer traffic across the provider's network.
- C. An SLA allows customers to control all traffic within the service provider's network by prioritizing their traffic over others as desired.
- D. An SLA allows a customer to pre-mark traffic and ensure that traffic is treated as per the agreement within the provider's network.
- E. An SLA is a standard set of network QoS policies that a provider shares to all its customers, allowing them to better understand the treatment of traffic within the provider's network.

Answer(s): B D

8. How many bits does DSCP use to provide QoS marking options?

A. 8

B. 16

C. 6

D. 4

E. 3

Answer(s): C

9. Which of the following are major components of QoS functionality on the Nokia 7750 SR?
(Choose three)

- A. Microflow reservations using RSVP

B. DSCP to EXP translation

C. Traffic classification

D. Automatic profiling and policy configuration

E. Buffer memory management

F. Traffic scheduling

Answer(s): C E F

10. Which of the following are characteristics of 802.1p? (Choose two)

A. 802.1p adds 16 bits to the Layer 2 header,

B. 802.1p adds 16 bits to the Layer 3 header.

C. 802.1p specifies 64 different priority levels.

D. 802.1p uses a field in the 802.1Q header.

E. 802.1p uses a field in the Layer 3 IP header

F. 802.1p defines a 3-bit Class of Service field.

Answer(s): D F

11. Which of the following BEST describes a SAP when regarding QoS?

A. A point in the network where EXP bits can be mapped to one of eight predefined FCs, each one with its own queue.

B. A logical point in a service tunnel where all of customer traffic is aggregated.

C. A point at which the initial classification of customer traffic occurs.

D. A point in the network where QoS parameters are discarded in favor of lower-level hardware queuing functions, such as LLI (Link Layer Interleave).

E. A point in the network where traffic flows from multiple different services are queued together, based on forwarding class.

Answer(s): C

12. Individual application streams are considered microflows, whereas _____ are considered macroflows.

A. SAPs

B. SDPs

C. Services

D. Queues

E. Schedulers

F. Forwarding classes

Answer(s): F

13. What is the maximum number of SAP-ingress policies that can be applied on a SAP?

A. 1

B. 2

C. 3

D. 4

E. 5

F. 8

Answer(s): A

14. Click the exhibit button below.

Based on the configuration shown below, name the forwarding class to be associated with a TCP packet encapsulated inside an Ethernet frame that arrives on SAP 1/1/5 with the following characteristics:

Destination IP address = 120.110.1.1

TCP port number = 23

DSCP value = nc1

Dot1pvalue = 3

A. H2

B. NC

C. L2

D. EF

E. H1

F. BE

Answer(s): C

15. Which of the following are possible criteria for classifying packets at the network port ingress on the Nokia 7750 SR? (Choose three)

A. The EXP bits in the MPLS header.

B. The packet's source and destination IP addresses.

C. The packet's DSCP bits.

D. The dot1p bits in the frame header.

E. The ID of an SDP that is transporting the packet.

Answer(s): A C D

16. A default network policy is applied to all router interfaces associated with network ports.

A. TRUE

B. FALSE

Answer(s): A

17. Which of the following are NOT ingress matching criteria for a network policy? (Choose two)

A. TCP port numbers

B. LSP EXP

C. DSCP

D. Source and destination IP addresses

E. Dot1p priority

Answer(s): A D

18. Click the exhibit button below. A partial SAP-ingress policy configuration is shown below. A UDP video stream is sent to a PC with IP address 192.168.1.100. Given the SAP-ingress policy,

to which forwarding class is the traffic matched?

```
A:srl1a>config>qos>sap-ingress# info detail
-----
---- output omitted -----
      ip-criteria
        entry 10 create
        match dst-ip 192.168.1.99/32
        exit
        action fc "af"
      exit
      entry 20 create
      match protocol udp
      exit
      action fc "ef"
    exit
    entry 30 create
    match protocol udp
      dst-ip 192.168.1.100/32
    exit
    action fc "h2"
  exit
  entry 40 create
  match protocol icmp
  exit
  action fc "h1"
exit
default-fc "be"
-----
```

A. AF

B. EF

C. H2

D. H1

E. BE

Answer(s): B

19. On an Nokia IOM 3, how is buffer memory allocated per forwarding complex?

A. 512 MB ingress, 512 MB egress

B. 256 MB ingress, 256 MB egress

C. 1 GB dynamically allocated between ingress and egress.

D. 768 MB dynamically allocated between ingress and egress.

E. 768 MB, with a minimum of 256 MB ingress and egress, and an additional 256 MB dynamically allocated.

Answer(s): D

20. WRED can be used to help avoid TCP slow-start synch problems.

A. TRUE

B. FALSE

Answer(s): A
