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Exam A

QUESTION 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

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:

QUESTION 2
How many bits does DSCP use to provide QoS marking options?

A. 8
B. 16
C. 6
D. 4
E. 3

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
QUESTION 3
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.

Correct Answer: DF
Section: (none)
Explanation

Explanation/Reference:

QUESTION 4
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 5
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.

Correct Answer: ACD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
A default network policy is applied to all router interfaces associated with network ports.

A. TRUE
B. FALSE

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7
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

Correct Answer: AD

Section: (none)
Explanation
Explanation/Reference:

QUESTION 8

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:sr1a>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
        exit
        default-fc "be"
-------------------------------------------------------------
```

A. AF

B. EF

C. H2
D. H1
E. BE

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
What is the maximum number of forwarding subclasses a forwarding class can have?

A. 3
B. 64
C. 72
D. 16
E. 56

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 10
Click the exhibit button below. Given the SAP-ingress policy, which of the following statements are FALSE? (Choose three)

```
*A:srcdev3r1>config>qos# info
-----------------------------------------------
#-----------------------------------------------
echo "QoS Policy Configuration"
#-----------------------------------------------
    sap-ingress 66 create
        queue 1 create
        exit
        queue 3 profile-mode create
            parent "high" level 5 weight 100 cir-level 5
            rate 50000 cir 10000
        exit
        queue 5 create
            parent "high" level 7 weight 100 cir-level 7
            rate 30000 cir 20000
        exit
        queue 6 create
            parent "high" level 8 weight 100 cir-level 8
            rate 2000 cir 2000
        exit
        queue 11 multipoint create
        exit
        fc "af" create
            queue 3
            profile in
        exit
        fc "ef" create
            queue 6
        exit
        fc "h2" create
            queue 5
        exit
        ip-criteria
            entry 10 create
                match protocol tcp
                    dst-port eq 1234
                exit
                action fc "ef" priority high
```

A. Queue 5 is using priority mode.
B. UDP traffic can be serviced at a maximum rate of 20 Mbps.
C. Ping traffic is place in queue 5.
D. Queues 5 and 6 will receive equal portions of any remaining available bandwidth to meet their above-CIR bandwidth requirements.
E. Queue 3 is scheduled before queue 5.

Correct Answer: BDE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 11
Which of the following statements BEST describes an MBS parameter?

A. It specifies the maximum rate at which a queue can be serviced.
B. It specifies the maximum depth of a queue beyond which packets will be dropped.
C. It specifies the portion of a queue that is taken from the reserved buffer pool.
D. It specifies the threshold beyond which only in-profile packets will be queued.
E. It specifies the peak bandwidth that can be attained by the incoming traffic.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 12
If traffic is destined to queue 5, which has a high-priority-only value of 0 in the network-queue policy, all out-of-profile packets will be dropped.

A. TRUE
B. FALSE

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 13
On the Nokia 7750 SR, where can network-queue policies be applied? (Choose two)

A. On the network egress port.
B. On the SDP.
C. On the access ingress port.
D. On the egress MDA.
E. On the SAP.
F. On the ingress MDA.

Correct Answer: AF
Section: (none)
Explanation

Explanation/Reference:

QUESTION 14
A queue is configured with the following attributes:

MBS = 10KB
CBS = 5KB
High-Priority-Only = 20%

Assume that there is no CBS overbooking and that the slope-policy is disabled. If the current queue depth is 3KB, what will happen to an out-of-profile packet arriving at an egress queue?

A. It will be queued in the reserved portion of the buffer pool and remain out-of-profile.
B. It will be queued in the reserved portion of the buffer pool if there are no in-profile packets already in the queue.
C. It will be queued in the reserved portion of the buffer pool and be in-profile.
D. It will be queued in the shared portion of the buffer pool but contend for shared buffer space with packets from other queues.
E. It will be queued in the shared portion of the buffer pool but may be dropped if the buffer utilization exceeds the start-average value of the low slope. **Correct**

Answer: A

Section: (none)
Explanation

Explanation/Reference:

QUESTION 15
A physical port has three associated buffer pools. Which of the following buffer pool combinations is associated to a physical port?

A. Access ingress, access egress, network egress
B. Access ingress, network ingress, network egress
C. Port ingress, port egress, shared bi-directional
D. Port ingress, port egress, network egress
E. Port ingress, network ingress, network egress

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16
To manage the shared buffer space at network ports, slope policies are applied on _____ for the ingress direction, and on _____ or _____ for the egress direction.

A. Interfaces, ports, SAPs
B. Ports, ports, MDAs
C. MDAs, MDAs, ports
D. Interfaces, interfaces. MDAs
E. MDAs, ports, interfaces

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
QUESTION 17

Click the exhibit button below. A service provider has applied the SAP-ingress policy configuration below on his customer's SAP. The service provider notices that all of the customer's traffic is being dropped at the SAP-ingress. Which of the following actions can resolve the problem, if applied on its own? (Choose three)

```
A:sr1a>config>qos>sap-ingress# info
----------------------------------------------
        queue 1 create
        exit
        queue 3 profile-mode create
            rate 50000 cir 0
            high-prio-only 100
         exit
        queue 11 multipoint create
        exit
        fc "af" create
            queue 3
            profile out
        exit
        default-fc af
----------------------------------------------
```

A. Set the CIR of queue 3 to a non-zero value corresponding to the customer's expected bandwidth requirements.
B. Set queue 3 to use priority mode.
C. Set the traffic classification of packets to in-profile.
D. Set the high-priority-only value to 0.
E. Map AF traffic to queue 1

Correct Answer: CDE

QUESTION 18
In the context of hierarchical scheduling, a scheduler is configured with a CIR weight of 0. Which of the following statements is TRUE?

A. The scheduler will be allocated its "within CIR" bandwidth before all other children at the same level have received their "within CIR" bandwidth.
B. The scheduler will be allocated its "within CIR" bandwidth after all other children at the same level have received their "within CIR" bandwidth.
C. The scheduler will be allocated its "within CIR" bandwidth after all other children at all levels have received their "within CIR" bandwidth.
D. The scheduler will not be allocated its "within CIR" bandwidth.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 19
Which of the following statements describe the primary objectives of the policing of traffic flows on the Nokia 7750 SR? (Choose two)

A. Ensure that traffic flows conform to their traffic profile.
B. Log violations of metered traffic flows exceeding the CIR value set on the entity across which the traffic is moving.
C. Provide fairness between traffic flows, so that conforming (in-profile) traffic flows are not starved of bandwidth and/or buffer space by non-conforming (out-ofprofile) flows.
D. Minimize packet loss and reduce end to end latency.
E. Ensure that variable latencies do not cluster short bursts of originally conforming packets and render them nonconforming.

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 20
Policing improves bandwidth utilization by using buffering to absorb high bursts of traffic.

A. TRUE B.
FALSE

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 21
On the Nokia 7750 SR, which of the following QoS-related policies can be configured on a SAP? (Choose three)

A. The slope-policy
B. The SAP-ingress policy
C. The SAP-egress policy
D. The network-queue policy
E. The scheduler-policy

Correct Answer: BCE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 22
When using an egress port scheduler, on which scheduling loop are orphaned queues serviced?

A. Level 8 within CIR.
B. Level 8 between CIR and PIR.
C. Level 8, once all PIR is serviced.
D. Level 1 within CIR.
E. Level 1 between CIR and PIR.
F. Level 1, once all PIR is serviced.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
Which of the following statements regarding the egress port scheduler is TRUE?

A. The egress port scheduler can have up to 17 children spread across 8 levels.
B. Multiple egress port schedulers can be assigned to a single port with many HQoS children.
C. Multiple HQoS policies can be children of a single port scheduler.
D. Multiple egress port schedulers can be children of a single HQoS scheduler.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 24
Traffic assigned to forwarding classes is placed into queues, while the contents of the queues are serviced in a controlled manner using_____.

A. WRED
B. shapers
C. schedulers
D. markers
E. weighted fair queues (WFQ)

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 25

Which of the following statements regarding egress FC and profile over-ride are TRUE? (Choose two)

A. Packets can be classified into 16 different FCs when using priority mode queuing.
B. This feature is available on egress SAPs within any service.
C. MPLS EXP bits can be changed based on multi-field classification.
D. If a Behavior Aggregate (BA) and Multi-field (MF) match occurs, only the MF override parameters will take effect.
E. If a Behavior Aggregate (BA) and Multi-field (MF) match occurs, the BA classification can override the forwarding class while the MF classification can override the profile.

Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
In which of the following scenarios is self-generated traffic QoS (sgt-QoS) useful?

A. EXP markings on transit control traffic are not set correctly.
B. The priority of all self-generated traffic needs to be lowered to allow all other traffic to take precedence.
C. The priority of various control packets requires special treatment throughout the network.
D. The BGP process is consuming too many CPU cycles and is impacting OSPF performance.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 27
A packet is to be encapsulated inside an MPLS tunnel which consists of two MPLS headers at the first network egress. Which of the MPLS EXP fields will be marked?

A. The EXP field in the bottom MPLS header will be marked.
B. The EXP field in both the top and bottom MPLS headers will be marked.
C. For Layer 2 services, the top MPLS header will be marked; for Layer 3 services, the bottom MPLS header will be marked.
D. The EXP field in the top MPLS header will be marked.

E. Neither the top nor the bottom EXP field will be marked since EXP remarking can only be done on the network ingress.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28
Which of the following statements are TRUE regarding the building of a QoS-enabled network? (Choose two)

A. It is important that all packets are classified in the same way at all SAP-ingress points.
B. Once a packet is classified to a forwarding class, it cannot change across the network.
C. Packet enters a node will be treated as per the local hop's configured policy.
D. Native IP packets entering a network port will be marked at the first network egress by default
E. Native IP packets entering a network port will not be marked at the first network egress by default.
F. Native IP packets entering a network port will be marked at the first network egress, regardless of the re-marking configuration.

Correct Answer: CE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 29
Which of the following are possible criteria for classifying packets at the SAP-ingress? (Choose three)

A. The EXP bits in the MPLS header.
B. The packet's source and destination IP addresses.
C. The service ID of the service to which the SAP belongs.
D. The dot1p bits in the frame header.
E. The packet's Ethertype.

Correct Answer: BDE
Section: (none)
Explanation

Explanation/Reference:
QUESTION 30
Click the exhibit button below. Given the SAP-ingress policy, which of the following statements are TRUE? (Choose three)

```
A:sr1a>config>qos>sap-ingress# info
--------------------------------------------------
            queue 1 create
            exit
            queue 3 profile-mode create
                rate 50000 cir 10000
             exit
            queue 5 create
                parent "high" level 7 weight 100 cir-level 7
                rate 30000 cir 20000
             exit
            queue 6 create
                parent "high" level 8 weight 100 cir-level 8
                rate 2000 cir 2000
             exit
            queue 11 multipoint create
            exit
            fc "af" create
                queue 3
                profile in
            exit
            fc "ef" create
                queue 6
            exit
            fc "h2" create
                queue 5
            exit
            ip-criteria
                entry 10 create
                    match protocol tcp
                        dst-port eq 1234
                    exit
                    action fc "ef" priority high
                exit
                entry 15 create
                    match protocol udp
                    exit
                    action fc "h2"
                exit
                entry 20 create
                    match protocol icmp
                    exit
                    action fc "h2"
                exit
        exit
```

A. All AF traffic will be marked "in-profile" at the SAP-ingress.
B. All TCP traffic will be mapped to forwarding class EF.
C. UDP traffic is placed in queue 3 while ICMP traffic is placed in queue 5.
D. EF traffic will receive higher scheduling priority than H2 traffic.
E. Traffic that does not match any of the IP criteria will be placed in queue 3.

Correct Answer: ADE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 31
Click the exhibit button below. Given that the slope-policy (below) has been enabled and applied on a network port, which of the following statements are TRUE?
(Choose three)

```
A:sr1a>config>qos>slope-policy# info detail
-------------------------------------------------
            description "Slope policy"
            high-slope
                start-avg 50
                max-avg 70
                max-prob 60
                no shutdown
            exit
            low-slope
                start-avg 10
                max-avg 20
                max-prob 80
                no shutdown
            exit
            time-average-factor 0
-------------------------------------------------
```

A. All out-of-profile traffic will be dropped before any in-profile is dropped.
B. The time average factor of 0 will discard all packets arriving in the shared buffer pool.
C. When the shared buffer utilization reaches 51%, in-profile packets might be dropped.
D. The highest probability with which an out-of-profile packet can be dropped is 20%.

E. When an in-profile packet arrives and the shared buffer utilization is at 69%, the packet will have approximately a 60% likelihood of being discarded.

Correct Answer: ACE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 32
Which of the following are entities of the Nokia 7750 SR on which you can NOT apply a network-queue policy? (Choose three)

A. Router interfaces
B. Ingress MDA
C. Ingress Ethernet network ports
D. Egress Ethernet network ports
E. Service SAPs

Correct Answer: ACE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 33
Which of the following parameters are used in a hierarchical scheduler-policy to specify the priority of the child scheduler/queue for allocating bandwidth beyond its committed rate? (Choose two)

A. CIR
B. CIR level
C. CIR weight
D. Rate
E. Level
F. Weight
Correct Answer: EF
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34
With hierarchical scheduling, up to _____ tiers are supported on the Nokia 7750 SR.

A. 8
B. 3
C. 4
D. 5
E. 6

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 35
Which of the following statements regarding scheduling on the Nokia 7750 SR is TRUE? (Choose two)

A. When using profile-mode queues, traffic that is marked as in-profile on ingress and scheduled in the above-CIR loop will still be considered as in-profile at egress.
B. When an HQoS strategy using an egress port-scheduler has been deployed, Tier 1 receives its scheduling rates based on the amount of egress bandwidth available for each forwarding class.
C. The greater the difference between PIR and CIR rates in a queue, the less likely a CIR will be provided.
D. Packets scheduled out of high-priority queues in the default scheduler will have a lower chance of packet loss at the expense of incurring a higher probability of delay.
E. When using priority-mode queues, traffic that is marked as in-profile on ingress and scheduled in the above-CIR loop will be considered as in-profile at egress.

Correct Answer: AC
Section: (none)
Explanation
Explanation/Reference:

QUESTION 36

Which of the following fields can be marked or remarked for frames belonging to a Layer 2 service?

A. DSCP
B. PREC
C. Dot1p
D. ToS
E. Q-in-Q

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 37
When deploying a Nokia MPLS network with QoS, how are the EXP bits set?

A. The first 3 bits of the DSCP value are copied directly into the EXP field on the first network egress.
B. The EXP bits are set on the first network egress, based on a combination of the SAP-ingress classification and the network policy applied.
C. The 3 priority bits are copied directly from the dot1p header into the EXP field of the first MPLS header.
D. The EXP bits are set based on a default map that translates DSCP codes into internal forwarding classes on SAP-ingress.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 38
In which policies, on the Nokia 7750 SR. is classification performed? (Choose three.)

A. SAP-ingress policy
B. SAP-egress policy
C. IP-criteria policy
D. Network-queue policy
E. Slope policy

F. Network policy

Correct Answer: ABD
Section: (none)
Explanation

Explanation/Reference:
Reference: https://documentation.nokia.com/cgi-bin/dbaccessfilename.cgi/9300770801_V1_7750%20SR%20OS%20QUALITY%20OF.pdf page 24

QUESTION 39
Which of the following are categories of forwarding classes on the Nokia 7750 SR? (Choose two)

A. Real-time
B. Assured
C. Non-conforming
D. High priority
E. In-profile

Correct Answer: AD
Section: (none)
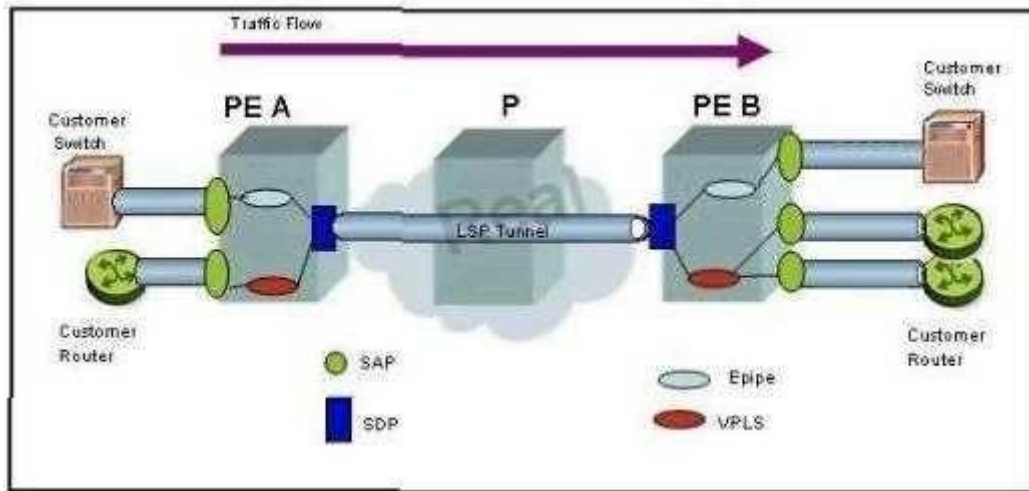**Explanation**

Explanation/Reference:

QUESTION 40
Click the exhibit button below. The service provider has both a VLL (epipe) service and a VPLS, as shown in the diagram below.

At router PE B, traffic arriving from both services will have the same network-queue policy applied.

A. TRUE
B. FALSE

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 41
Which of the following rate-limiting approaches are used on the Nokia 7750 SR? (Choose two)

A. Shapeless policing at SAP-ingress only.
B. Shapeless policing at SAP-ingress and egress.
C. Biased round robin queuing at ingress only.
D. Soft shaping at all network interfaces.
E. Soft shaping at network ingress only.

Correct Answer: DE

Explanation/Reference:

QUESTION 42
Click the exhibit button below. A network operator has configured a network-queue policy to map forwarding classes to queues, as shown in the exhibit below. Based on the default scheduling behavior of the Nokia 7750 SR, in which order will packets be serviced?

```
A:sr1a>config>qos>network-queue# info
---------------------------------------------------
        queue 1 create
            rate 100 cir 0
        exit
        queue 5 create
            rate 100 cir 50
        exit
        queue 6 create
            rate 50 cir 50
        exit
        queue 9 multipoint create
        exit
        fc af create
            queue 5
        exit
        fc be create
            queue 1
        exit
        fc ef create
            queue 6
        exit
        fc h2 create
            queue 5
        exit
---------------------------------------------------
```

A. All in-profile packets in round-robin, then all out-of-profile packets in biased round-robin.
B. In-profile EF packets, then in-profile H2 packets, then in-profile AF packets, then out-of-profile EF packets, then out-of-profile H2 and AF packets, and then outof-profile BE packets.

C. In-profile EF, H2 and AF packets, then out-of-profile H2, AF and BE packets in biased round-robin.
D. In-profile EF packets, then in-profile H2 and AF packets, then out-of-profile H2, AF and BE packets in biased round-robin.
E. In-profile EF and H2 packets, then in-profile AF packets, then out-of-profile H2, AF and BE packets in biased round-robin.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 43
Which of the following statements regarding scheduling are TRUE? (Choose two)

A. Scheduler policies cannot be children of an egress port-scheduler.
B. HQoS provides a static method of allocating scheduling resources to each queue and/or child.
C. Scheduler policies can be applied to the MDA to schedule network ingress traffic.
D. Every time a scheduler-policy is assigned to a SAP, a new hardware scheduler is created to service the SAP.
E. A scheduler applied to multiple SAPs within the same service will result in a single hardware scheduler operating across all SAPs within the service.
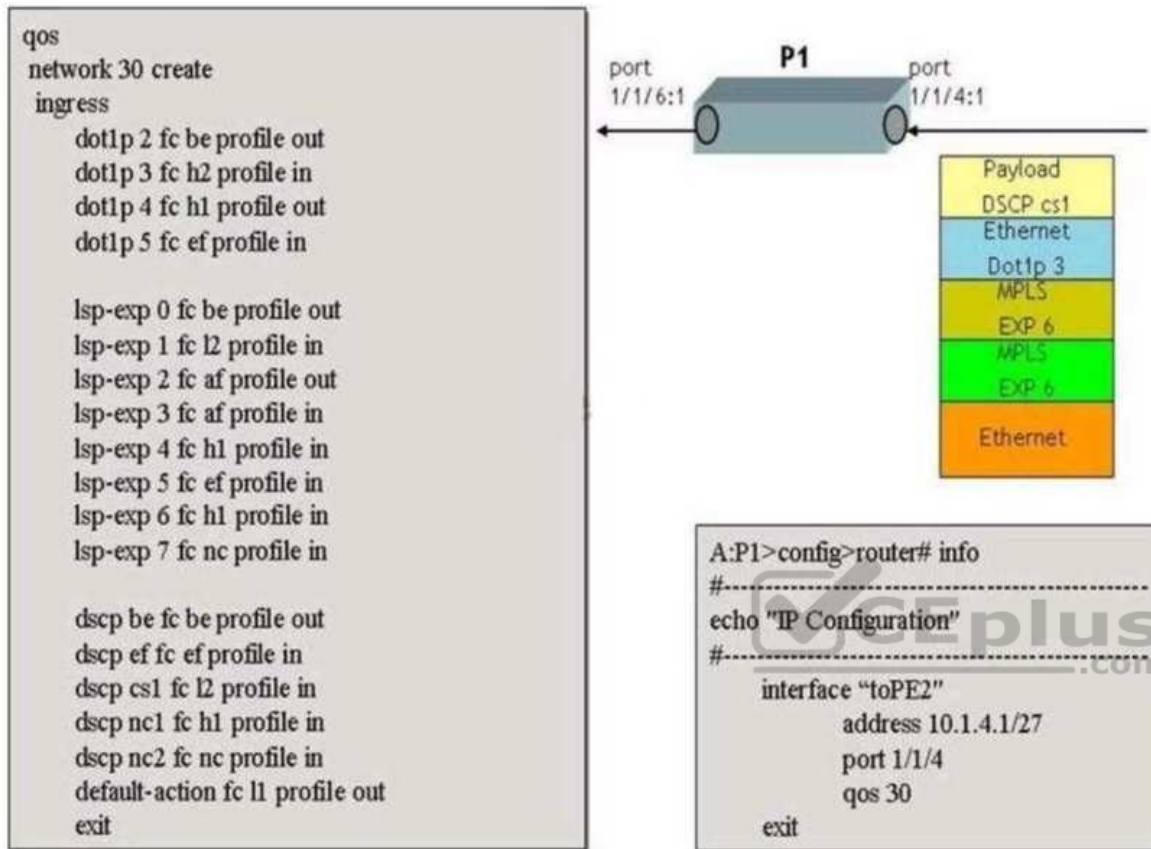
Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 44
Click the exhibit button below.

```
qos
  network 30 create
    ingress
        dot1p 2 fc be profile out
        dot1p 3 fc h2 profile in
        dot1p 4 fc h1 profile out
        dot1p 5 fc ef profile in

        lsp-exp 0 fc be profile out
        lsp-exp 1 fc l2 profile in
        lsp-exp 2 fc af profile out
        lsp-exp 3 fc af profile in
        lsp-exp 4 fc h1 profile in
        lsp-exp 5 fc ef profile in
        lsp-exp 6 fc h1 profile in
        lsp-exp 7 fc nc profile in

        dscp be fc be profile out
        dscp ef fc ef profile in
        dscp cs1 fc l2 profile in
        dscp nc1 fc h1 profile in
        dscp nc2 fc nc profile in
        default-action fc l1 profile out
    exit
```

P1

port 1/1/6:1   port 1/1/4:1

Payload
DSCP cs1
Ethernet
Dot1p 3
MPLS
EXP 6
MPLS
EXP 6
Ethernet

```
A:P1>config>router# info
#-------------------------------------------
echo "IP Configuration"
#-------------------------------------------
        interface "toPE2"
                address 10.1.4.1/27
                port 1/1/4
                qos 30
        exit
```

Based on the configuration of the network policy (below), what will be the forwarding class associated with a MPLS encapsulated customer packet that arrives on a dotlQ encapsulated network port 1/1/4:1 on P1 with the following characteristics:

EXP value = 6
DSCP value = cs1
Dot1pvalue = 3

A. EF
B. H1
C. L1
D. H2

E. L2

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 45
How does an IOM3 improve the queue usage over an IOM2 in a Nokia 7750 SR? (Choose two)

A. The IOM3 adds more memory to both forwarding complexes which increases the total number of queues available.
B. The IOM3 only contains a single forwarding complex which reduces the number of queues used.
C. The IOM3 allows multiple forwarding classes to be assigned to a single queue.
D. The IOM3 allows queues to be dynamically allocated between ingress and egress.
E. The IOM3 has a larger CPU capable of tracking active hardware queue utilization and adjusting memory allocation accordingly.

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 46
Which of the following statements BEST describes the IntServ model?

A. Has the ability to distinguish traffic in 32 different ways.
B. Uses the RSVP protocol to create microflows through a network.
C. Has the ability to manually configure foiwarding classes through a network.
D. Uses the RSVP protocol to create macroflows through a network.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
QUESTION 47

Which of the following statements about the consequences of congestion is TRUE?

A. Negative jitter results in a smaller than expected interval between transmitted packets.
B. Jitter does not have any effect on the quality of video applications.
C. Serialization delay is not affected by congestion.
D. Queuing delay is a fixed form of delay in networks.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 48
Which of the statements about packet classification is TRUE?

A. It sets the destination IP address of the packet.
B. It uses RVSP to inform other QoS capable routers how the packet should be treated.
C. It sets the TOS, DSCP, EXP, or DOT1p field based on classification criteria.
D. It can use a customer's encapsulated data to determine a packet's forwarding class.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 49
Which of the following is NOT a characteristic of policing?

A. It smooths out traffic bursts.
B. It drops the packets when average peak rate is exceeded.
C. It may additionally color the packets as they arrive.
D. It buffers the packets at its output before sending them out.

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:

QUESTION 50
Which of the following is a forwarding class type that is intended for network control traffic on a Nokia 7750 SR?

A. High-1
B. Assured
C. Best Effort
D. Expedited

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 51
Which of the following statements about Assured Forwarding (AF) Per Hop Behavior (PHB) groups is FALSE?

A. It defines a premium service that effectively creates a dedicated link between peers.
B. It defines four different AF traffic classes.
C. Every AF class in each differentiated services node is allocated a certain amount of forwarding resources.
D. Within each AF class, IP packets are marked with one of three possible drop precedence values.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 52
The SAP-ingress policy shown below is applied properly to a Nokia 7750 SR. A traffic stream is received from an IP address of 192.168.2.200 with DSCP and dot1p set to EF and 4, respectively. Which forwarding class and priority level is used for this traffic stream?

```
R2>config>qos>sap-ingress# info
------------------------------------------------
            --- Output omitted ---
            ip-criteria
                    entry 10 create
                        match
                            dscp ef
                        exit
                        action fc "h1"
                    exit
                    entry 20 create
                        match
                            src-ip 192.168.2.200
                        exit
                        action fc "af" priority low
                    exit
            exit
            dot1p 4 fc l1 priority high
            exit
------------------------------------------------
```

A. FC H1, high
B. FCH1, low
C. FCAF, high
D. FCAF, low

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 53
Which parameter can be configured in a network ingress QoS policy?
A. The priority (low/high) to be assigned to the packets.
B. The profile (in/out) to be assigned to the packets.
C. The queues to be assigned to the forwarding classes.

D. The markings to be marked on the packets.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 54
Which of the following statements about configuring queues to use shared or reserved buffer space is FALSE?

A. When queues use shared buffer space, buffers are more efficiently utilized.
B. Queues that use reserved buffer space will have memory available for their reserved portion.
C. When a queue is not using its reserved portion, other queues can use it.
D. Using reserved buffer space prevents a queue from being starved of buffer resources by other queues.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 55
Which of the following is NOT a reason for configuring a slope policy on a queue?

A. To have control over the amount of the low priority packets that enter the queue.
B. To control any traffic flowing through the shared buffer space of the queue.
C. To limit the number of the TCP sessions that go into slow start during congestion.
D. To force the TCP algorithm to increase its transmission window upon detecting a congestion.

Correct Answer: D
Section: (none)
Explanation
Explanation/Reference:

QUESTION 56

On the Nokia 7750 SR, what is the maximum number of ingress queues that a single network queue policy can support in a VPLS?

A. 8
B. 16
C. 32
D. 48

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 57
Which of the following statements about the token buckets of a policer is FALSE?

A. The CIR has no influence on the forwarding rate of the policer traffic.
B. The CIR influences whether a packet is considered high-profile or low-profile.
C. The policer discards all incoming packets when PIR bucket reaches the MBS level.
D. PIR bucket forwards packets that arrive with rates above PIR as out-of-profile.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 58
Both SAP-ingress 10 and policer-control-policy "CFHP" have been applied to a service SAP ingress.
What is the maximum bandwidth allocated to policer 2?

```
R1>configure>qos# info
--------------------------------------------
     ---- Output omitted ----
     policer-control-policy "CFHP" create
            root
                rate 100000
            exit
            tier 1
                arbiter "T1" create
                    parent "root" level 4
                    rate 30000
                exit
            exit
     exit
     sap-ingress 10 create
     ---- Output omitted ----
            policer 1 create
                    parent "T1" level 2 weight 50
                    rate 20000 cir 20000
            exit
            policer 2 create
                    parent "T1" level 2 weight 50
                    rate 30000 cir 10000
            exit
            policer 3 create
                    parent root level 6
                    rate 40000 cir 10000
            exit
            fc af create
                    policer 3
            exit
            fc l2 create
                    policer 2
            exit
            fc l1 create
                policer 1
            exit
            dscp "ef" fc "af"
            dot1p 3 fc "l2"
            dot1p 5 fc "l1" priority low
     exit
```

A. 10000 Kbps
B. 15000 Kbps
C. 20000 Kbps
D. 30000 Kbps

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 59
Which of the following is NOT an adaptation rule supported on the Nokia 7750 SR for calculating the operational CIR/PIR of a queue?

A. Closest
B. Average
C. Min
D. Max

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 60
Which of the following statements about burst-limit of a queue is FALSE?

A. Burst-limit sets a limit on the maximum burst of packets transmitted during each scheduler visitation time.
B. Proper configuration of the burst-limit can prevent packet drops on the downstream nodes resulting from traffic bursts.
C. The lower the configured burst limit value, the lower the burst allowed to enter the queue.
D. If the burst-limit is not configured, a default burst-limit value will be used by the queue.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 61
Which of the following statements describes a queue's weight parameter that is used in the hierarchical scheduling?

A. The weight specifies the priority of the queue during scheduling up to its CIR.
B. The weight specifies the priority of the queue during scheduling above-CIR, up to its PIR.
C. The weight is used to determine how this queue and other queues or schedulers at the same CIR-level share available CIR bandwidth at that level.
D. The weight is used to determine how this queue and other queues or schedulers at the same level share available above CIR bandwidth at that level.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 62
While deciding how to share the available bandwidth among its children, when does a port scheduler consider the parameter "level" of a child?

A. During the allocation of within-CIR bandwidth.
B. During the allocation of above-CIR bandwidth.
C. During the allocation of both within-CIR and above-CIR bandwidth.
D. The port scheduler does not use the level of a child for making bandwidth allocation decisions

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 63
An egress port scheduler applied to an Ethernet port has a configured bandwidth of 100 Mbps. All frames transmitted on the port are 80 bytes. What is the aggregate transmit bandwidth of all queues using the port scheduler?
A. 100Mbps * 20/(80 + 20) = 20 Mbps
B. 100Mbps * 80/(80 + 20) = 80 Mbps

C. 100Mbps

D. 100+ 100 * 20/(80 + 20) = 120 Mbps

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 64

A frame belonging to a Layer 2 service is encapsulated in an MPLS tunnel at a network-egress port. Which of the following fields in the frame can be marked or remarked at the network egress port?

A. ToS
B. DSCP
C. PREC
D. EXP

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 65

Which of the following statements about marking packets is TRUE?

A. Packets corresponding to a layer-2 service can be pre-marked on SAP-ingress.
B. Packets corresponding to a layer-2 service can be pre-marked on network-ingress.
C. Packets corresponding to a layer-3 service can be pre-marked on SAP-ingress.
D. Packets corresponding to a layer-3 service can be pre-marked on network-ingress.
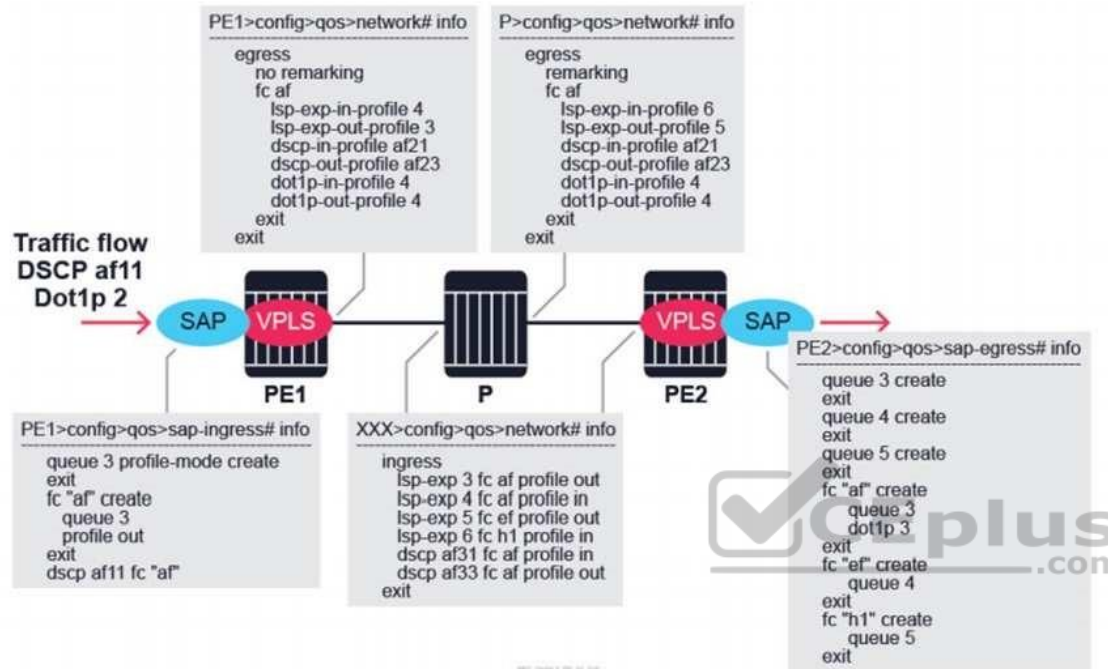
Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 66

Packets arrive at the VPLS SAP on PE1 with DSCP marking of af11 and Dot1p of 2. According to the QoS policies applied at routers PE1, P, and PE2, what is the DSCP value of packets egressing router PE2? (All the SDPs are MPLS-encapsulated, and all interfaces are using their default trust states).
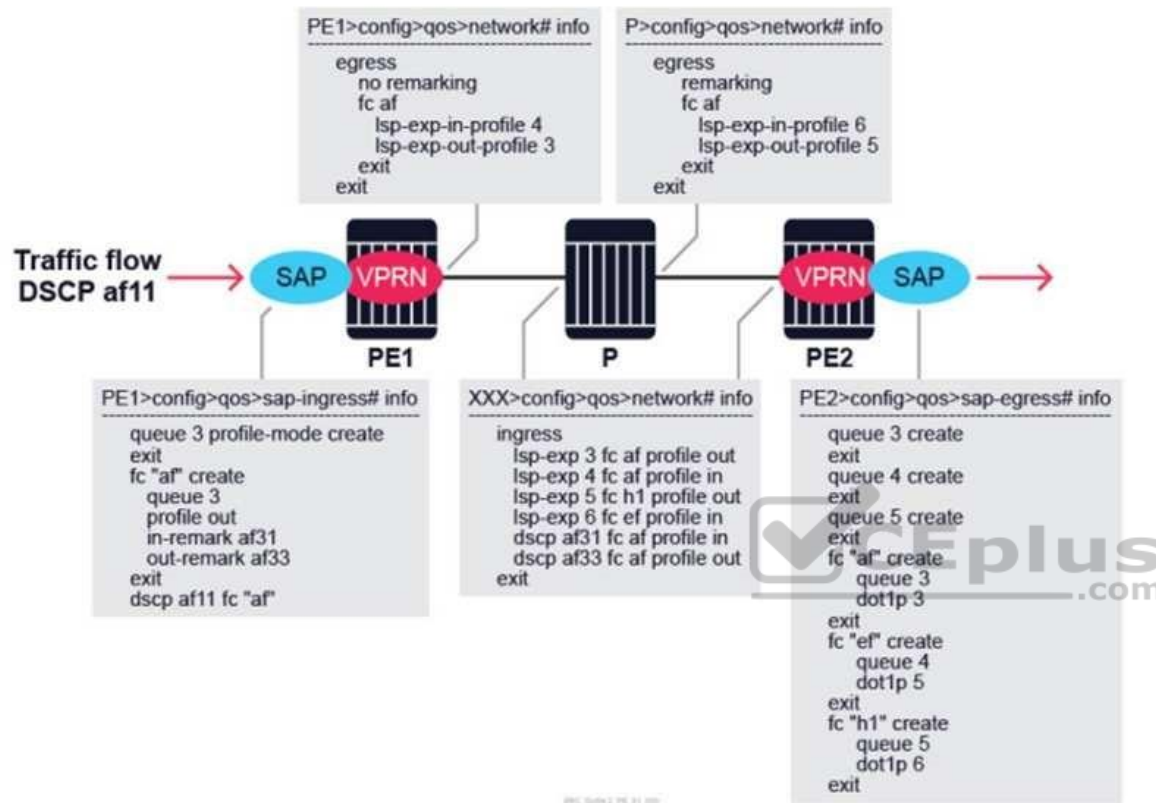

A. af11
B. af21
C. af23
D. af31

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 67

Packets arrive at the VPRN SAP on PE1 with DSCP marking of af11 and Dot1p of 2. According to the QoS policies applied at routers PE1, P, and PE2, what is the dot1p value of packets egressing routerPE2? (All the SDPs are MPLS-encapsulated, and all interfaces are using their default trust states).


```
PE1>config>qos>network# info
----------------------------------
    egress
        no remarking
        fc af
            lsp-exp-in-profile 4
            lsp-exp-out-profile 3
        exit
    exit
```

```
P>config>qos>network# info
----------------------------------
    egress
        remarking
        fc af
            lsp-exp-in-profile 6
            lsp-exp-out-profile 5
        exit
    exit
```

Traffic flow DSCP af11 → SAP VPRN **PE1** — **P** — VPRN SAP **PE2** →

```
PE1>config>qos>sap-ingress# info
----------------------------------
    queue 3 profile-mode create
    exit
    fc "af" create
        queue 3
        profile out
        in-remark af31
        out-remark af33
    exit
    dscp af11 fc "af"
```

```
XXX>config>qos>network# info
----------------------------------
    ingress
        lsp-exp 3 fc af profile out
        lsp-exp 4 fc af profile in
        lsp-exp 5 fc h1 profile out
        lsp-exp 6 fc ef profile in
        dscp af31 fc af profile in
        dscp af33 fc af profile out
    exit
```

```
PE2>config>qos>sap-egress# info
----------------------------------
    queue 3 create
    exit
    queue 4 create
    exit
    queue 5 create
    exit
    fc "af" create
        queue 3
        dot1p 3
    exit
    fc "ef" create
        queue 4
        dot1p 5
    exit
    fc "h1" create
        queue 5
        dot1p 6
    exit
```

A. 2
B. 3
C. 5
D. 6

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 68

Which of the following statements about the QoS treatment of self-generated traffic in the Nokia 7750 SR is FALSE?

A. All self-generated traffic is assigned into forwarding class NC by default.
B. Ingress self-generated traffic is stored in CPM queues and egress self-generated traffic is stored in IOM queues.
C. The self-generated packets will be marked with a default DSCP value.
D. The self-generated packets will be marked with default EXP bits.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 69

According to the configurations shown, which of the following statements about the classification and queuing of self-generated OSPF traffic is TRUE?

```
R1# config>router>sgt-qos# info
        application ospf dscp none
        dscp nc1 fc be
R1#
R1# exit all
R1#
R1# config qos network-queue default
R1# info
        --- Omitted Output ---
        fc nc create
          queue 8
        exit
        fc be create
          queue 1
        exit
        --- Omitted Output ---
```

A. It will be classified into forwarding class BE and stored in queue 1.
B. It will be classified into forwarding class BE and stored in queue 8.
C. It will be classified into forwarding class NC and stored in queue 1.

D. It will be classified into forwarding class NC and stored in queue 8.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 70
Which of the following traffic types is typically rate-limited by applying shaping and soft-policing on access ingress?

A. Self-generated
B. Real-time
C. Best-effort
D. Assured

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 71
How does a shaper rate-limit a traffic stream?

A. Packets that arrive in a burst are immediately dropped; packets that arrive with the proper in between space are immediately.
B. Packets are buffered on arrival and are forwarded at an average rate conforming with PIR, typically, with a reduced burstiness.
C. Packets with an average arrival rate higher than PIR are immediately dropped; conforming packets are forwarded at the same rate at which they arrive.
D. Packets with an average arrival rate higher than PIR are buffered for future processing; conforming packets are immediately forwarded.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 72

Which of the following statements describes an advantage of the DiffServ QoS model over the IntServ QoS model?

A. DiffServ reserves resources dynamically using the RSVP protocol.
B. DiffServ only requires packets to be classified into forwarding classes at the first network hop.
C. DiffServ provides granular differentiation and superior fairness because it processes traffic streams individually.
D. DiffServ is more scalable it treats traffic streams as aggregates.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 73
Which of the following statements defines the committed information rate?

A. It is the rate at which a traffic stream is offered to a queue.
B. It is the rate at which packets are forwarded out of a queue.
C. It is the minimum rate at which packets may be forwarded out of a queue.
D. It is the maximum rate at which packets may be forwarded out of a queue.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 74
Why are the four QoS steps (classification, queuing, scheduling, and marking/remarking) executed twice for every packet entering a 7750 SR router?

A. Once before going through each of the redundant switching fabrics.
B. To protect against failure of either ingress or egress card.
C. Once before going through the switching fabric, and once more before going onto the egress port.
D. Once to decide if the packet is in-profile or out-of-profile, and once more to process the packet according to its profile.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 75
In a Nokia 7750 SR, which of the following is a class type that is intended for non-real-time customer traffic that requires some committed bandwidth?

A. Gold
B. Assured
C. High Priority
D. Best Effort

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 76
Which of the following statements about behavior aggregate classification is TRUE?

A. It sets both the forwarding class and the packet's dot1p, lsp-exp, precedence, or dscp field to the same value.
B. It groups all packets together into a single aggregate stream, and gives all packets the same treatment.
C. It copies the three most significant bits in the packet's dscp field into the forwarding class.
D. It assigns a forwarding class based on the packet's dot1p, lsp-exp, precedence, or dscp value.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 77
A SAP-ingress policy is configured so that ping traffic is classified as FC L1 and mapped to queue 3; however, all traffic is placed in queue 1. What is the most probable reason for this?

A. The default forwarding class for ICMP traffic is BE and cannot be changed.
B. The SAP has been shut down.
C. Queue 3 has no PIR or CIR configured, and thus cannot hold any packets.
D. The SAP-ingress policy has not been applied to the SAP.

Correct Answer: D
Section: (none)
Explanation
Explanation/Reference:

QUESTION 78
Which of the following criteria is NOT used in the behavior aggregate classification option?

A. dot1p
B. dst-mac
C. lsp-exp
D. dscp

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 79
How many bits in the IP ToS field define the packet's precedence?

A. 3
B. 4
C. 6
D. 8

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 80
Which of the following is an advantage of using queue-groups on a service SAP?

A. It enables CFHP.
B. It more scalable than using policers.
C. It allows a separate set of queues/policers for each VLAN on a port.
D. It allows a set of queues to be shared among multiple SAPs.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 81

```
*A:R1>config>qos>sap-ingress# info
        —— Output omitted ——
        queue 5 priority-mode create
                mbs 20
                cbs 10
                high-prio-only 10
        exit
        queue 6 profile-mode create
                mbs 24
                cbs 24
                high-prio-only 90
        exit
        fc ef create
                queue 6
        exit
        fc "ef.in" create
                profile in
        exit
        fc "ef.out" create
                profile out
        exit
        fc l2 create
                queue 5
        exit
        dot1p 1 fc "l2"
        dot1p 5 fc "ef.in" priority low
        dscp "ef" fc "ef.out" priority high
        default-fc l1
        default-priority high
```

According to the SAP-ingress QoS policy shown, what is the maximum amount of memory that queue 5 can use from the shared buffer pool?

A. 1 kilobyte

B. 2 kilobytes C. 10 kilobytes
D. 20 kilobytes

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 82
Which of the following QoS functions does the slope policy perform?

A. Classification
B. Marking
C. Buffer admission control
D. Scheduling

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 83
A queue-group template can only contain policers (no queues) when applied under which conditions?

A. When applied at the FP (Forwarding Path) level for access egress
B. When applied at an access port for ingress or egress
C. When applied at the FP (Forwarding Pass) level for access ingress
D. When applied at the port level for network egress

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
QUESTION 84

According to the SAP-ingress QoS policy shown, which of the following statements about packets processed by policer 6 is TRUE?

```
*A:R1>config>qos>sap-ingress# info
─── Output omitted ───
policer 5 create
        rate 2500 cir 500
        mbs 20
        cbs 10
        high-prio-only 10
exit
policer 6 create
        rate 7000 cir 7000
        mbs 40
        cbs 24
        high-prio-only 90
exit
fc ef create
        policer 6
exit
fc l1 create
        policer 5
exit
fc l2 create
        policer 5
exit
dot1p 1 fc "l2"
dot1p 5 fc "ef"
dscp "ef" fc "ef" priority high
default-fc l1
default-priority low
```

A. All forwarded packets will be in-profile
B. Packets forwarded above CIR will be marked out-of-profile and the rest will be in-profile
C. Excess packets that arrive within a burst larger than CBS will be forwarded as out-of-profile
D. All forwarded packets will be out-of-profile

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 85
Which of the following is NOT a factor when deciding if a packet can be accepted into a queue?

A. Profile/priority state of a packet
B. Forwarding class
C. Queue depth
D. HPO setting

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 86
Which of the following statements about the token buckets of a policer is TRUE?

A. When a packet arrives, the PIR bucket depth is checked and the packet is discarded if this bucket is full.
B. The CIR bucket of a policer is the reserved portion of its PIR bucket.
C. The CIR bucket of a policer has two thresholds: CBS and HPO.
D. Packets processed by the PIR bucket at an average rate above PIR will be forwarded as out-of-profile.

Correct Answer: A
Section: (none)
Explanation
Explanation/Reference:

QUESTION 87
Which of the following is NOT a valid configuration value for a queue's CIR parameter within a SAP-ingress policy?

A. 0
B. min
C. max
D. 50000

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 88
If two queues complete for bandwidth in a hierarchical scheduler environment, which parameter is used by their parent scheduler to determine the priority with which each queue can use bandwidth above its committed rate?

A. level
B. cir-level
C. weight
D. cir-weight

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 89
How many tiers of schedulers can be supported in hierarchical scheduling on the Nokia 7750 SR?

A. 8
B. 3
C. 5
D. 6

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:

QUESTION 90

```
*A:R1>config>qos >sap-ingress# info

—— Output omitted ——
    queue 5 create
            rate 4000 cir 2000
    exit
    queue 6 create
            rate 10000 cir 5000
    exit
    fc af create
            queue 5
    exit
    fc ef create
            queue 6
    exit
```

Based on the image shown above, and assuming that the default scheduler of the Nokia 7750 SR is on an IOM2 card, in which order will packets be scheduled?

A. Queue 6 within-CIR packets, then queue 5 within-CIR packets, then queue 5 and queue 6 above-CIR packets in round-robin.
B. Queue 6 within-CIR packets, then queue 5 within-CIR packets, then queue 5 and queue 6 above-CIR packets in biased round-robin.
C. Queue 6 within-CIR packets, then queue 5 within-CIR packets, then queue 6 above-CIR packets, and finally queue 5 above-CIR packets.
D. Queue 6 and queue 5 within-CIR packets in biased round-robin, then queue 5 and queue 6 above-CIR packets in round-robin.
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 91
Which of the following self-generated traffic applications is considered "protocol" traffic, as opposed to "management" traffic?
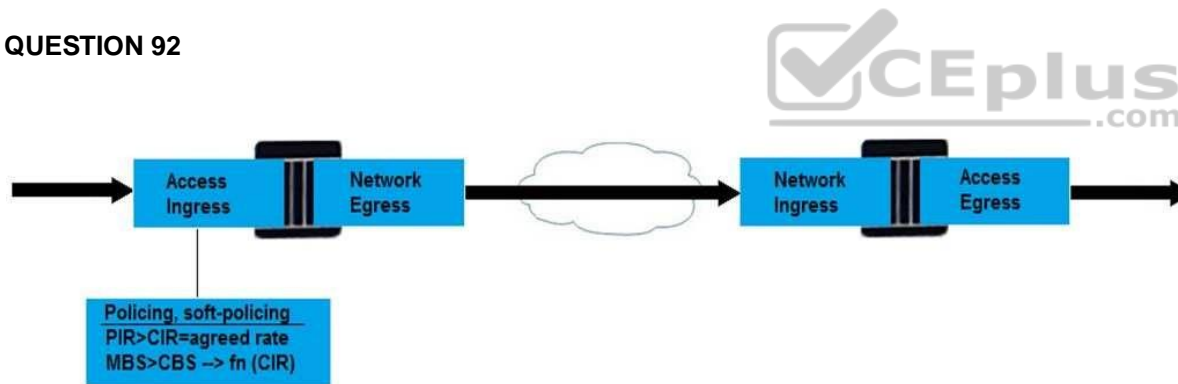
A. BGP
B. Telnet
C. ICMP
D. SNMP

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 92

In the diagram shown above, applying policing and soft-policing on access ingress is typical for which of the following types of traffic?

A. Real-time
B. Assured
C. Best-effort
D. Self-generated

Correct Answer: C

Section: (none)
Explanation

Explanation/Reference:

https://vceplus.com/