


Quality of Service
Lecture 6

Date: Spring
Duration: 15 min.

- There is only one correct answer for each multiple choice question.
- Each correct answer adds 1 point.
- Each incorrect answer has a penalty of $\frac{1}{3}$ points.
- No score is awarded for unanswered questions, neither positive nor negative.
- Mark out your answers with an “X”. Make sure that the “X” reaches the corners of the rectangle. 
- No score is awarded if you mark more than one answer.
- Pad your NIA with 0s on the left to complete the NIA field.

Write your personal data clearly.

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| Last name: | |
| First name: | |
| Group: | |

Permutation: A

NIA:

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| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |

- 1.- Which of the following is a practical use of the Class Selector (CS) PHB?
 - (a) To easily map IP priorities to MPLS and vice-versa in a mixed IP-MPLS environment.
 - (b) To automatically select the best PHB available at each host.
 - (c) To delete the status stored in each of the routers between the source and destination.
 - (d) To implement cross-layer implementations at the expense of the VoIP traffic class.

- 2.- What is the PHB?
 - (a) A toothbrush effect.
 - (b) A field in the ethernet packets.
 - (c) A high level description of the behaviour of a router for a particular class of traffic.
 - (d) A detailed description of the QoS tools required to implement a particular behaviour.

- 3.- In the DiffServ model, is there any kind of control on the quantity of traffic poured into the network?
 - (a) Yes, traffic is conditioned according to a traffic conditioning agreement (TCA).
 - (b) Yes, the traffic is conditioned by the TCP stacks using congestion control.
 - (c) No, there is no limit on the amount of traffic that the network can accept, because it offers QoS service guarantees.
 - (d) No, the network always tunnels excess traffic to the closest sink.

- 4.- In the notation AF_{xy} ...
 - (a) “x” is the queue size and “y” the scheduler order.
 - (b) “x” is a first order multiplier and “y” is a second order multiplier.
 - (c) “x” is the number of packets and “y” is the size of packets.
 - (d) “x” is the priority and “y” is the drop precedence.

- 5.- Which of the following PHB is typically policed to prevent the starvation of other classes of traffic?
 - (a) Default PHB.
 - (b) Assured Forwarding.
 - (c) Expedited Forwarding.
 - (d) First In First Out.

- 6.- Why is DiffServ scalable?
 - (a) Because the core routers maintain the state of all the IP flows and reserve bandwidth for each of them.
 - (b) Because the queue size is kept under control using AQM.
 - (c) Because complex tasks are performed at the network edge, and the core routers simply need to handle a reduced number of traffic classes.

(d) Because the size of the routers increase as the traffic increases.

7.- What is the length of the DSCP field?

- (a) 4 bits.
- (b) 6 bytes.
- (c) 4 bytes.
- (d) 6 bits.

8.- Which of the following is not a PHB defined by the IETF?

- (a) Assured Forwarding.
- (b) Voice Admit.
- (c) First In First Out.
- (d) Expedited Forwarding.