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HS2020: 11072 Advanced Networking and Future Internet

Theoretical Exercises - Week 7

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Multicast Applications (2 points)

Q1. Mention three types of Multicast applications. Explain the advantages of using Multicasting for these kind of applications instead of other existing communication methods (e.g. Unicast and Broadcast).

Multicast IP Addressing (3 points)

Q2. Which of the following Ethernet addresses can be used in a multimedia context (i.e. video conference, gaming etc) between you and other members in a Multicast **group**? Justify your answer.

- 01-00-5E-00-00-0A
- 01-00-5E-0A-0B-0C
- 01-00-5E-0A-1B-2C
- 01-00-5E-00-00-FF
- 01-00-6E-00-01-0A

Hint: The range of Multicast addresses is fixed. If needed, you can map Ethernet addresses to IP addresses.[1]

[1] https://docs.microsoft.com/en-us/previous-versions/windows/it-pro/windows-2000-server/cc957928(v=technet.10)?redirectedfrom=MSDN

Multicast IP Protocols (3 points)

Q3. Briefly describe (1 paragraph each) the purposes of the following protocols: **IGMP**, **MOSPF**, **PIM**, **MSDP** and **BGMP**.

Multicast IP Issues (2 points)

Q4. Describe 3 issues of Multicast IP.

Grades

- Multicast Applications (2 Pts)
- Multicast IP Addressing (3 Pts)
- Multicast IP Protocols(3 Pts)
- Multicast IP Issues (2 Pts)
- **Deadline: 08.11.20 at 23:55**

Q/A

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