

Lastname	Signature
Firstname	
Student number	
Room	Points (max 40)

Note: all answers on the questions sheet, be brief and to the point. Think hard on what you spend your limited words in.

**1. List 5 problems of MIP. (5p)**

- |    |    |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. |    |

**2. Mention 5 common challenges with respect to routing in Ad hoc networks. (5p)**

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|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. |    |

**3. Compare 802.15.4 to 802.15.1: List 3 issues where 802.15.4 excels and 3 where 802.15.1 is better (6p)**

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|----|-----------------|----|-----------------|
|    | <u>802.15.4</u> |    | <u>802.15.1</u> |
| 1. |                 | 1. |                 |
| 2. |                 | 2. |                 |
| 3. |                 | 3. |                 |

**4. Name the most essential network elements in a GSM network and briefly explain their functionality. (6p)**

5. Explain shortly: 802.11s, 802.11n, 802.11e (3p)

a) 802.11s

b) 802.11n

c) 802.11e

6. What are the pros and cons of using 802.11b, 802.11g and 802.11a? (3p)

a) 802.11b

b) 802.11g

c) 802.11a

7. Key network components in 2,5G/3G networks and their roles. (6p)

8. LTE vs. Wimax: Mention 3 issues where LTE is stronger and 3 issues where Wimax is stronger (6p)

LTE

Wimax

1.

1.

2.

2.

3.

3.