

Name:

Number:

Rules: at most you can earn 25 points for 10 questions (each question has the number of points given in brackets). Good luck!

Q.1 (2)

- Explain the differences between CN (Core Network) and AN (Access Network)
- Explain the ABC concept (wireless access harmonization)

Q.2 (3)

- What is the predecessor technology of MPLS?
- Explain basic components and features of MPLS networks
- Explain the differences between IP routing, ATM switching and MPLS approach

Q.3 (2)

- Explain the rules for appending/removing labels in MPLS.
- Explain the difference between routing in classic IP networks and in MPLS.

Q.4 (2)

- Explain the traffic engineering problems in MPLS and DiffServ. How does a combined approach can help here?
- What is TED? What kind of information is collected in TED? How?

Q.5 (3)

- Explain the purpose and difference between RDM and MAM models.
- What is the difference between VPWS and VPLS. Explain.
- Why MPLS-based VPNs are attractive to both service providers and end users?

Q.6 (2)

- * Explain the concepts of VPLS.
- * What kind of MPLS-based VPN you would choose for small enterprise. Why?

Q.7 (3)

- * Explain the basic features and design targets of LTE
- * What is the functionality of UE (User Equipment)?
- * What is the functionality of RNC?

Q.8 (3)

- Explain how the RTS/CTS mechanism works.
- What does the IEEE 802.11e amendment offer?
- What are the two scanning modes in IEEE 802.11? How do they work?

Q.9 (3)

- Give a brief characteristic of the IEEE 802.16 standard. What do amendments 'a', 'd' and 'c' add to the basic standard?
- What are the traffic classes in IEEE 802.16?
- What are the MAC functions in IEEE 802.16?

Q.10 (2)

- * Compare WiBro with WiMAX
- * Compare IEEE 802.16e, IEEE 802.20 and 3G standards
