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**Guidelines for the examination paper in Telecommunications Economics. Winter 2012/2013, date 19.12.2012.**

**Criteria for top performance in assessments of examination in 'Telecommunications Economics'.**

*To obtain the highest grades in the assessments of examination in 'Telecommunications Economics' the following general criteria shall be met:*

*The student shall*

- *demonstrate knowledge of all the relevant concepts and factual items regarding the questions raised and of the relationships between these*
- *be able to design an analysis to give a thoroughly description of the problem and find possible solutions to the questions raised*
- *give a survey of the relevant economic issues regarding the questions raised*
- *explain constraints and uncertainties in the presented solutions, often in the form of trade-offs between different objectives.*

*As more concrete criteria - depending on the actual questions raised in the examination - the following shall be demonstrated:*

*Knowledge of*

- *the main trends and relationships in the ICT sectors (ICT=Information and Communication Technology) regarding demand, supply, prices, market players, technical solutions, regulation etc.*
- *the main economic and technical concepts and items used in the ICT sectors, especially for telecommunication, the Internet and supply of radio and TV channels.*

**The minimum criteria for passing the examination.**

*The student shall demonstrate knowledge of*

- *the most important concepts and factual items that are relevant for answering the questions raised*
- *the most relevant trends and relationships in the ICT sectors*
- *the possibilities and limitations of the use of relevant economic analyses.*

*Acceptance of a limited amount of small and medium failures in the analysis presented, but normally no major failures can be accepted.*

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### Question A.

There are different ways to answer the question. It is important to show an understanding and overview of different relevant concepts and to organise the presentation in a well-structured way.

The answer shall include several of the following issues:

- The story of introduction of competition in the telecommunication sector since 1998 in Europe (1996 in USA). Earlier public monopolies. Privatization and liberalization.
- Incumbents have made subsidiaries in foreign countries, where they act as entrants.
- Competition for fixed voice telephony and for mobile telephony.
- Competition for broadband access.
- The role of cable TV operators.
- The value chain: network and customer care services. Wholesale products (mainly network services) offered by the incumbent to the entrants at regulated wholesale prices.
- The role and possibilities for pure service providers and operators with own network facilities for traditional telecommunication. Ladder of investment.
- Definition and functionality for ISPs and IBPs in relation to the Internet.

### Question B.

There are different ways to answer the question. It is important to show an understanding and overview of different relevant concepts and to organise the presentation in a well-structured way.

The answer shall include several of the following issues:

- The function of domain names and IP numbers.
- The global system with different levels of domain names. 13 root servers world wide at each level.
- Who takes care of decisions at the different levels.
- The currently up-dates of the link between IP numbers and domain names.
- The use of the European/US alphabet and English as the main language.
- How to solve conflicts about the right to specific domain names. The brand values.