

(4 timers eksamen; Engelsk)

### Question 1

1.1

Define and explain the term "natural monopoly".

1.2

Define the terms "Consumer Surplus", "Manufacturer Surplus" and "Deadweight Loss". What is the commonly used word for "Total Surplus (= Consumer Surplus + Manufacturer Surplus)", and what does this word imply?

1.3

Explain why introduction of competition in a (previous) monopoly-marked is generally expected to increase welfare.

1.4

What tools are used by the authorities (EU and USA) to establish a fully competitive telecom marketplace?

### Question 2

Customers (mobile users) may choose between different tariffs offered by the mobile operators. Typically, these tariffs have either a high fixed fee combined with a low usage fee or the opposite – a low fixed part combined with a high fee for usage.

2.1

Illustrate this type of tariff and discuss how it may be used to facilitate customer segmentation. What is the main challenge for the mobile operators in performing this type of segmentation?

2.2

Give two examples of such segmentation (of customers); from telecom or other businesses.

2.3

Introduction of "prepaid" has extended the mobile customer population. (e.g. teens and students). Discuss how the increased number of prepaid customers influence existing customers with regard to usage etc.

2.4

Explain why the introduction of 3G-mobile is expected to increase interest for MVNOs.

### Question 3

3.1

In most cases it is less expensive for a customer of one mobile operator to call customers of the same operator, than to call customers connected to another mobile operator.

Explain why this may give switching costs for the customers, and discuss how this depends on other customer's choice of tariff.

3.2

Give two other examples of switching costs (from ICT-businesses), and explain how switching costs appears.

### 3.3

Explain how switching costs may influence competition in the marketplace. (You may well use the mobilephone-market for illustration.)

## Question 4

### 4.1

Describe the main features of the competition-regulation of the Norwegian telecom market.

### 4.2

Competing operators are entitled to demand access to Telenor's infrastructure and utilize it for production of their own telecom services offered to the market.

What is the background for this entitlement?

List examples of "essential resources" in Telenor's infrastructure which are accessible for competitors.

## Question 5

### 5.1

Describe the main principles of settlement of traffic fees between telephone networks globally (ITU's accounting principle).

### 5.2

Describe the principles of settlement of traffic fees between telephone networks within the Norwegian market.

### 5.3

It has been proposed to omit the settlement of traffic fees between international telephone networks. What is this principle called, and what arguments may be offered for and against (pro & con)?

## Question 6

### 6.1

Describe the industry life cycle by use of S-curves and explain briefly the different phases.

### 6.2

With reference to the S-curves, define and explain the two different forms of innovation, and explain the challenges they imply for

- a) a mature company
- b) an upstart company

### 6.3

What is a Radical Innovation Hub (RIH)?

Explain how a mature company can stimulate radical innovation through establishment of a RIH.

## Question 7

An ISP-market is served by three ISPs. Two of these are independent, while the third is owned by the incumbent telecom operator. All three ISPs connects to the same IBP.

### 7.1

Explain how competition (and prices) can be expected to develop, assuming that the access-price (from the incumbent) is not regulated.

7.2

As 7.1, but assuming the incumbent is required by the Regulator not to charge the independent ISPs higher than the long term incremental cost (LRIC) for access.

What is in this case the implication for “national welfare” compared with the situation described in 7.1?