Exercise walk-through

Socially Efficient and Inefficient Market Outcomes ▪ 6.1

eXercise

You must be able to

- explain that a market is **socially efficient 社会效率** when **marginal social benefit** equals **marginal social cost**
- relate the efficient outcome to the maximization of **total surplus**
- explain how **market power** leads to underproduction and a **deadweight loss**
- define **market failure 市场失灵**

Method — Social efficiency

A market is socially efficient where **marginal social benefit (MSB) = marginal social cost (MSC)** — this maximizes **total surplus**.

Method — Market power

A firm with market power **underproduces** (produces where $P > MC$), so some mutually beneficial units are lost — a **deadweight loss**.

Method — Market failure

Any outcome in which a market **fails to allocate resources efficiently** (from market power, externalities, public goods, and so on).

Practice 2.1 ▪ 1 mark

State the condition for a socially efficient market outcome.

Solution 2.1

Method: Social efficiency

Worked steps

where marginal social benefit equals marginal social cost **B1**.

Practice 2.2 ▪ 1 mark

Define market failure.

Solution 2.2

Method: Market failure

Worked steps

an outcome in which the market fails to allocate resources efficiently **B1**.

Practice 2.3 ▪ 2 marks

Explain how market power leads to a deadweight loss.

Solution 2.3

Method: Market power

Worked steps

market power leads to producing where $P > MC$ (underproduction) **B1**, so some beneficial trades are lost — a deadweight loss **B1**.

Exam-style 3.1 ▪ 1 mark

A market is socially efficient where

A $MSB > MSC$

B $MSB = MSC$

C $MSB < MSC$

D the price is zero

Solution 3.1

Method: Social efficiency

A $MSB > MSC$

B $MSB = MSC$ ✓

C $MSB < MSC$

D the price is zero

Worked steps

B.

Exam-style 3.2 ▪ 1 mark

Market failure is when a market

- **A** maximizes total surplus
- **B** fails to allocate resources efficiently
- **C** is perfectly competitive
- **D** has no firms

Solution 3.2

Method: Market failure

A maximizes total surplus

B fails to allocate resources efficiently ✓

C is perfectly competitive

D has no firms

Worked steps

B.

Exam-style 3.3 ▪ 1 mark

A monopoly restricts output below the efficient level.
(a) State the effect on total surplus.
(b) Name the loss this creates.
(c) State whether this is a market failure.

Solution 3.3

Method: Social efficiency

Worked steps

(a) it falls **B1**. (b) a deadweight loss **B1**. (c) yes **B1**.