IGCSE ECONOMICS · 1.1 THE MARKET SYSTEM · CHAPTER 13 · PAPER 1

Externalities

Topic question sheet L13 | **Total: 31 marks** | **Time: 35 minutes** | **Student Book pp. 89–97**

Instructions: answer **all** questions. Write your answers on lined paper. The marks for each question are shown in brackets: use them as a guide to how much to write.

Calculators may be used. Show your working. Draw diagrams in pencil and label them fully. The mark scheme starts on a new page: do not look at it until you have finished.

Section A: Multiple choice

One mark each. Choose **one** answer: A, B, C or D.

1 Which of the following is an example of an external cost resulting from production? **(1)**

A Smoke from cigarettes
B Loud music from a neighbour
C Noise pollution from an aircraft
D Jobs created by a new development

2 Social cost is equal to: **(1)**

A private costs + private benefits
B private benefits + external benefits
C private costs + external costs
D private costs − private benefits

3 Which of the following is most likely to create an external benefit? **(1)**

A Vaccinations
B Fast food
C Car journeys
D Cigarettes

4 A government document allowing a firm to discharge a set amount of pollution is a: **(1)**

A subsidy
B pollution permit
C fine
D tariff

Section B: Short answers

Define, state, calculate, draw and explain. Show your working for calculations.

5 What is meant by an **external benefit**? **(2)**

6 State the formula for social cost. **(1)**

7 Explain why education creates external benefits. **(3)**

8 Explain **one** problem with using regulation to reduce pollution. **(3)**

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Section C: Data response

Read the extract, then answer the questions. Use evidence from the extract in every answer.

Extract: A new airport runway

The government of Tarania has approved a second runway at its capital's airport. It will cost US$2 billion and allow 30 million more passengers a year. The airport says it will create 15 000 jobs and attract tourists and businesses.

Local residents complain about noise from aircraft, air pollution and more traffic on local roads. The government is considering a tax on airlines for each flight, with the revenue used to insulate nearby homes.

Fictional case, written for this sheet.

9 With reference to the extract, analyse the external costs and external benefits of the new runway. **(6)**

10 With reference to the extract, evaluate whether a tax on airlines for each flight is the best way to deal with the external costs of the runway. **(12)**

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Mark scheme: Externalities

How to mark: Multiple choice, Define, State: 1 mark. **What is meant by** (2): two separate parts to the definition. **Calculate**: working and answer (with units). **Draw** (3): one mark per correct labelled feature. **Explain** (3): 1 for a point, 2 for developing it in context. **Analyse** (6): knowledge 2, application 2, analysis 2. **Assess** (9) and **Evaluate** (12) are marked by levels: choose the level that best fits the whole answer. Indicative content is a guide: credit other valid points.

Section A

1 *Which of the following is an example of an external cost resulting from production? (1 mark)*

Answer: C (Noise pollution from an aircraft). Aircraft noise is a spillover from production that affects third parties.

2 *Social cost is equal to: (1 mark)*

Answer: C (private costs + external costs). Social cost includes all costs to society.

3 *Which of the following is most likely to create an external benefit? (1 mark)*

Answer: A (Vaccinations). Vaccination protects others too.

4 *A government document allowing a firm to discharge a set amount of pollution is a: (1 mark)*

Answer: B (pollution permit). Permits can be traded.

Section B

5 *What is meant by an external benefit? (2 marks)*

A positive spillover effect of production or consumption (1) that benefits third parties (1).

6 *State the formula for social cost. (1 mark)*

Social cost = private costs + external costs (1).

7 *Explain why education creates external benefits. (3 marks)*

Point: an educated person benefits others, not just themselves (1).

Development: they can do skilled jobs (doctors, teachers) (1), raising productivity and living standards for society (1).

8 *Explain one problem with using regulation to reduce pollution. (3 marks)*

Point: laws can be hard to enforce (1).

Development: governments may lack resources or commitment (1); powerful firms may resist or hide pollution (1).

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Section C

9 *With reference to the extract, analyse the external costs and external benefits of the new runway. (6 marks · K2 · Ap2 · An2)*

Knowledge (2): external costs/benefits affect third parties.

Application (2): noise, air pollution, traffic for residents; 15 000 jobs, tourism, business.

Analysis (2): residents suffer worse health and lower quality of life they are not paid for; while the wider economy gains jobs and spending; social cost and benefit both exceed private ones.

Knowledge 2 · Application 2 · Analysis 2.

10 *With reference to the extract, evaluate whether a tax on airlines for each flight is the best way to deal with the external costs of the runway. (12 marks · levels)*

For: makes airlines pay for the external cost; raises fares so fewer flights; revenue to insulate homes; incentive to use quieter planes.

Against: demand for flights may be inelastic, so flights fall little; may make the airport less competitive and reduce jobs/tourism; hard to value noise; alternatives: regulation of night flights, noise limits, fines.

Judgement: a tax combined with night-flight rules may be best; depends on tax level and whether revenue really goes to residents.

Levels: L1 1–3 · L2 4–6 · L3 7–9 · L4 10–12 (balanced, well-developed arguments using the data throughout, and a justified conclusion that answers the question).

Original practice questions written in the style of the Pearson Edexcel International GCSE Economics (4EC1) papers. This is not an official paper. Unless a source is given, the firms, countries and figures are fictional and made up for practice.

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