1.2 Market failure and government intervention: Test Pack

Total Marks

AQA 7136 · Calculator allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Market failure and externalities.

(a) Define market failure. **(2)**

(b) Distinguish between a negative production externality and a negative consumption externality, giving an example of each. **(4)**

(Total for Question 1 is 6 marks)

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2 Public goods.

(a) Define the two key characteristics of a pure public good. **(2)**

(b) Using the free-rider problem, explain why a pure public good such as a national flood defence system is unlikely to be provided (or would be under-provided) by the free market. **(4)**

(c) State two examples, other than flood defences, of goods or services that are close to being pure public goods. **(2)**

(Total for Question 2 is 8 marks)

3 Positive externalities and subsidies.

(a) Explain how a subsidy could be used to correct a positive externality of consumption, using an example such as vaccination. **(4)**

(b) State two disadvantages of using subsidies to correct market failure. **(2)**

(Total for Question 3 is 6 marks)

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Mark scheme · 1.2 Market failure and government intervention: Test Pack

Question 1

(a) occurs when the free market mechanism leads to an allocation of resources that is not the socially optimal/efficient allocation **B1**

(a) resulting in either overproduction/overconsumption or underproduction/underconsumption of a good relative to the social optimum **B1**

(a) Answer: The free market allocates resources inefficiently relative to the social optimum.

(b) a negative production externality is a cost imposed on a third party (not involved in the transaction) as a result of PRODUCING a good **B1**

(b) example: air/water pollution from a factory **B1**

(b) a negative consumption externality is a cost imposed on a third party as a result of CONSUMING a good **B1**

(b) example: secondhand smoke from a cigarette, or noise from loud music **B1**

(b) Answer: Production externality e.g. factory pollution; consumption externality e.g. secondhand smoke.

Question 2

(a) non-excludable: once provided, it is impossible (or prohibitively costly) to prevent anyone from consuming/benefiting from the good, even those who have not paid for it **B1**

(a) non-rivalrous: one person's consumption of the good does not reduce the amount available for others to consume **B1**

(a) Answer: Non-excludable and non-rivalrous.

(b) because the good is non-excludable, individuals can benefit from it (e.g. flood protection) without paying towards its cost **M1**

(b) rational, self-interested consumers therefore have an incentive to 'free-ride', waiting for others to pay while they benefit for free **M1**

(b) if enough consumers free-ride, private firms cannot recoup their costs from those willing to pay, so providing the good becomes unprofitable **A1**

(b) the free market therefore under-provides (or fails to provide at all) the socially optimal quantity of the public good, a form of market failure **A1**

(b) Answer: Non-excludability lets consumers free-ride, so firms cannot profitably provide the good; the market under-provides it.

(c) national defence **B1**

(c) street lighting (allow: lighthouses, or any other valid non-excludable, non-rivalrous example) **B1**

(c) Answer: National defence; street lighting (any two valid examples).

Question 3

(a) a positive consumption externality means marginal social benefit (MSB) of, e.g. vaccination, exceeds marginal private benefit (MPB) to the individual, because others benefit from reduced disease transmission (herd immunity) **M1**

(a) without intervention, individuals only consider their own private benefit, so the free market under-consumes vaccination relative to the social optimum **M1**

(a) a subsidy lowers the effective price paid by consumers, encouraging consumption to rise towards the socially optimal quantity **A1**

(a) if the subsidy per unit is set equal to the marginal external benefit, consumption should rise to the socially optimal level, where MSB = MSC **A1**

(a) Answer: A subsidy equal to the marginal external benefit lowers the price consumers pay, raising consumption towards the socially optimal level.

(b) subsidies must be funded from government revenue (e.g. taxation), which has an opportunity cost in terms of other government spending **B1**

(b) government may lack the information to set the subsidy at the correct level, over- or under-correcting the externality **B1**

(b) Answer: Subsidies must be funded from tax revenue, with an opportunity cost elsewhere in the budget. The government may also lack the information to set the subsidy at the correct level, over- or under-correcting the externality.

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