



Economics Questions By Topic:

**Tradable Pollution Permits (1.4.1)
Mark Scheme**

A-Level Edexcel Theme 1

 0207 060 4494

 www.expert-tuition.co.uk

 online.expert-tuition.co.uk

 enquiries@expert-tuition.co.uk

 The Foundry, 77 Fulham Palace Road, W6 8JA

Table Of Contents

Section A	Page 1
Section B	Page 4

Section A

Question Number	Answer	Mark
1(a)	<p style="text-align: center;">Knowledge 2, Application 1, Analysis 1</p> <p>Knowledge and Application</p> <p>1 mark for understanding of pollution permits (1) 1 mark for appropriate linkage to industry/market/firms (1) 1 mark for how reducing permits reduce pollution (1)</p> <p>Award use of diagrams, for example:</p> <p>shifts the supply of permits inwards (1) which will push up the price per permit (1)</p> <p>OR</p> <p>Negative externality reduced</p> <p>Analysis: 1 mark for linked development of market incentives/government revenue e.g.</p> <p>Reducing pollution/Increase in price of permits (1).</p>	(4)

Question Number	Answer	Mark
1(b)	<p style="text-align: center;">Analysis 1</p> <p>The only correct answer is B</p> <p><i>A is not correct because regulation may cause the distortion of price signals as a problem</i></p> <p><i>C is not correct because regulation may result in the problem of information gaps</i></p> <p><i>D is not correct as regulation may result in the problem of excessive administrative costs</i></p>	(1)

Question Number	Answer	Mark
2	<p>Answer D (1)</p> <ul style="list-style-type: none"> • Definition / understanding of tradable pollution permits, e.g. an allowance on the amount of pollution firms may emit which can be bought and sold in the market. (1) • Relevant diagrammatic analysis which shifts the supply curve for carbon permits inwards and so increases its price (1+1) OR written explanation that a decrease in the supply of permits will lead to a rise in price. (1) • Higher price of permits increase the cost of polluting or act as an incentive for firms to reduce their pollution. (1) • A low market price means firms have little incentive to reduce pollution / it might be cheaper to purchase additional permits rather than fund cleaner technology / install clean production methods. (1+1) <p>Rejection marks</p> <ul style="list-style-type: none"> • Option A is incorrect since an excess supply of pollution permits is likely to lead to a fall in price and so firms have less incentive to reduce pollution emissions. (1) • Option B is incorrect since major polluting industries such as air travel should be included in the carbon trading scheme so that less pollution is emitted. (1) • Option C is incorrect since some firms may deliberately exceed / ignore their carbon permits as there is little chance of paying for it. (1) 	(4)

Question Number	Answer	Mark
3	<p>Answer B</p> <ul style="list-style-type: none"> • Definition of market failure (the price mechanism leads to a net welfare loss / inefficient allocation of resources) (1 mark). • Identification of the type of market failure (external costs) (1 mark). <p>Application: the carbon permits will restrict the amount of pollution from these industries to a certain level and so reduce extent of external costs (1 mark).</p>	(4)

Section B

Question Number	Answer	Mark
4	<p>KAA = 8 marks</p> <p>Understanding / considering the benefits of tradable pollution permits include :</p> <ul style="list-style-type: none"> • Definition or understanding of tradable pollution permits (a limit placed on firms carbon emissions through issue of permits / permits can be purchased and sold / fines if firms exceed limit without buying permits) (1+1 marks). • Data reference: e.g. Australian government intends to reduce carbon emissions by 5% by 2020 / Australia accounts for 1.5% of greenhouse gas emissions (1 mark) <p>Benefits of tradable pollution permits to reduce pollution (2+2+2+2 or 3+3+2 marks):</p> <p>NB: Do not award for discussion of benefits in reducing air pollution and impact of global warming. The focus has to be on the merits and demerits of the system of tradable permits.</p> <ul style="list-style-type: none"> • A market created for buying and selling carbon permits / use of price mechanism to internalise external costs / the best way to reduce carbon emissions. • This may be shown through a relevant externality diagram / where external costs are internalised through trade in carbon permits / some development e.g. reduce welfare loss or identify revenue from sale of carbon permit (1+1+1 marks). • Use of demand and supply diagram / depicting a decrease in supply of permits and its subsequent increase in price of permits (1+1 marks) 	(14)

	<ul style="list-style-type: none"> • Australia is one of the world's largest carbon polluters per head of population / so the scheme is justified to help reduce global emissions. • The Australian emissions trading scheme is similar to the EU and so could help create a global scheme / especially as China and South Korea show interest in setting up one. • Government can raise funds by selling some pollution permits / revenue can be used to reduce effects of pollution / subsidise cleaner technology / compensate victims. • Firms have an incentive to invest in clean technology / then sell excess permits to other firms / or bank surplus permits for future years. • The heavy polluting firms are disadvantaged by experiencing higher production costs from buying extra permits/ whereas the cleaner firms are at an advantage with relatively lower production costs from selling surplus permits. • Data bias could exist as Anglo American Corporation may be exaggerating the unemployment effects of an emissions trading scheme. <p>Evaluation = 6 marks Consideration of the limitations of tradable pollution permits for reducing pollution or their disadvantages (2+2+2 or 3+3 marks):</p> <ul style="list-style-type: none"> ➤ Extract 2 suggests huge increase in costs for mining industry of A\$25 billion by 2020 / many jobs directly and indirectly at risk / development of this point e.g. related industries such as mining tools industry or manufacturing industry. ➤ Extract 2 indicates that Australia only accounts for 1.5 per cent of global carbon emissions / not much point setting up the scheme compared to the cost for mining companies. ➤ Extract 2 suggests a decrease in mining investment projects / development of this point e.g. reduce Australia's ability to meet future energy needs. 	
--	---	--

- Little incentive for firms to reduce pollution since / 94.5 per cent of permits issued for free and so government failure / heavy polluters can purchase surplus permits from other firms rather than invest in expensive clean technology.
- Disputes arise over allocation of permits / possible barriers to entry.
- A cost to the government of monitoring and enforcing carbon pollution emissions rules.
- The valuation of pollution permits may be too risky to leave to the market.
- Problem that most countries in the world are not part of an emissions trading scheme especially US (apart from California).
- Other schemes might be more effective in reducing carbon emissions e.g. carbon offsetting or renewable energy certificates.

Level	Mark	Descriptor
Level 1	1-4	Definition of emissions trading scheme and description of how it works.
Level 2	5-8	Two or more advantages of the emissions trading scheme.
Level 3	9-10	Up to one evaluation point for one limitation of scheme.
Level 4	10-12	Up to two evaluation points for two limitations of scheme.
Level 5	12-14	Up to three evaluation points for three or more limitations of scheme.