



Economics Questions By Topic:

Market Failure (1.3) Mark Scheme

A-Level Edexcel Theme 1

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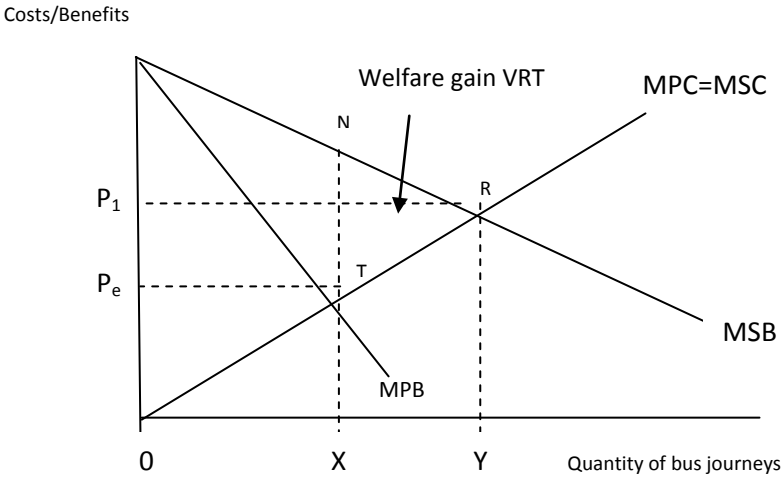
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Section A

Question Number	Answer	Mark
1	<p style="text-align: center;">D (1 mark)</p> <ul style="list-style-type: none"> • Definition of public good (non-rivalry and non-excludability characteristics). (1 mark) • Explanation of free rider problem (once a public good is provided, it is difficult to make people pay for the consumption of it / so there is little financial incentive for firms to supply the good). (1+1 marks) • Linked development: application to public goods such as street lighting, coastal defences, defence. (1 mark) <p style="text-align: center;">Rejection marks</p> <ul style="list-style-type: none"> • Option A incorrect since the price mechanism tends to under-provide or not provide since there is no way of charging people for consumption of it / public goods have to be provided by the government from general taxation. (1 mark) • Options B and/or C incorrect since there is an opportunity cost in the production of public goods as they require scarce resources to provide them e.g. land, labour and capital. (1 mark) 	(4)

Question Number	Answer	Mark
2	<ul style="list-style-type: none"> • A (1 mark) • Definition of market failure (the price mechanism fails to allocate resources efficiently / leads to a net welfare loss). (1 mark) • Definition of public goods (non-rivalry and non-excludability). Also accept 'non-rejectable' if included as one of the two characteristics required. (1 mark) • Definition of a free market economy (resources are allocated by the price mechanism - so no government intervention). (1 mark) NB: a maximum of 2 marks available for definitions • Explanation of free rider problem: it is possible for people to consume street lighting without paying for it once it is provided / little incentive for producers to provide sufficient quantities as they cannot charge consumers of the good. (1+1 marks. <p>Rejection marks</p> <ul style="list-style-type: none"> • Option B incorrect since an increase in the national minimum wage which causes unemployment is an example of government failure. (1 mark) • Option C incorrect since the price mechanism internalising external benefits from higher education means the market is working efficiently as $MSB=MSC$ / the social optimum output position is reached. (1 mark) • Option D incorrect since oil exploration firms exiting a market in response to a decrease in demand is the price mechanism operating to allocate resources efficiently / an example of the market working efficiently to reach a new equilibrium. (1 mark) 	(4)

Question Number	Answer	Mark
3	<ul style="list-style-type: none"> • Answer C (1 mark) • Definition of market failure: the price mechanism fails to allocate resources efficiently / leads to a misallocation of resources / leads to a net welfare loss). (1 mark) • Definition of external benefits (benefits which the price mechanism fails to take into account / positive third party effects / benefits external to a market transaction / positive spillover effects from consumption / difference between private benefits and social benefits) (1 mark) • Application to bus travel: external benefits include a reduction in road congestion / positive effects on environment as it may lead to less consumption of non-renewable resource). (1 mark) • There may be under-consumption and under-provision of bus travel in an economy since social optimum output position exceeds the market equilibrium output position. (1 mark) <p>OR this may be shown by diagrammatic analysis depicting market quantity X and social optimum quantity Y / welfare gain or welfare loss or deadweight loss VRT (1+1 marks)</p> <div style="text-align: center;">  <p>The diagram is a supply and demand graph. The vertical axis is labeled 'Costs/Benefits' and the horizontal axis is labeled 'Quantity of bus journeys'. The origin is marked '0'. There are four curves: a downward-sloping Marginal Social Benefit (MSB) curve, a downward-sloping Marginal Private Benefit (MPB) curve, an upward-sloping Marginal Private Cost (MPC) curve, and an upward-sloping Marginal Social Cost (MSC) curve. The MPC and MSC curves are coincident. The market equilibrium is at the intersection of MPB and MPC, with price P_e and quantity X. The socially optimal equilibrium is at the intersection of MSB and MSC, with price P_1 and quantity Y. A vertical dashed line at quantity X extends to point N on the MSB curve. A vertical dashed line at quantity Y extends to point R on the MSC curve. A horizontal dashed line at price P_1 extends from R to the MSB curve. A horizontal dashed line at price P_e extends from the intersection of MPB and MPC to the vertical axis. A triangle with vertices N, R, and T (where T is the intersection of MPB and MSC) is shaded and labeled 'Welfare gain VRT' with an arrow pointing to it.</p> </div> <ul style="list-style-type: none"> • Accept supply and demand diagram showing a subsidy that attempts to correct market failure. (1 mark) 	(4)

Rejection marks

- Option A is incorrect since this is the price mechanism operating efficiently to ensure demand equates with supply / profit motive for rail firms to raise price. **(1 mark)**

- Option B incorrect since government taxes on petrol help to reduce external costs and thus correct market failure associated with motor vehicle travel. **(1 mark)**

- Option D incorrect since loss making firms exiting the market show that the market is operating efficiently – there is a reduced incentive to supply if losses made. **(1 mark)**

Question Number	Answer	Mark
4	<p style="text-align: center;">Correct option A (1 mark)</p> <ul style="list-style-type: none"> • Definition of market failure (the price mechanism allocates resources inefficiently or leads to a net welfare loss). (1 mark) • Definition of free market economy (resources are allocated by the price mechanism). (1 mark) • Definition of external benefits (positive third party effects / benefits external to an exchange / positive spillover effects / benefits outside a market transaction / benefits the price mechanism ignores / the difference between social benefits and private benefits). (1 mark) NB: a maximum of 2 marks available for definitions • Application: external benefits from education include a more skilled or productive workforce which could generate greater income / profits / tax revenue / quality of life. (1 mark) • Accept diagrammatic analysis of external benefits in consumption.(1 mark) <p style="text-align: center;">Rejection marks</p> <ul style="list-style-type: none"> • Option B incorrect since firms entering the market in response to an increase in demand indicates that the price mechanism is working by offering greater profit incentives. (1 mark) • Option C incorrect since internalising external costs mean the social optimum position is reached where $MSB=MSC$. (1 mark) • Option D incorrect since government intervention which leads to a misallocation of resources is an example of government failure. (1 mark) 	(4)

Question Number	Answer	Mark
5	<ul style="list-style-type: none"> • B (1 mark) • Definition of public goods (non-rivalry and non-excludability or non-rejectable) (1 mark). • Definition of market failure (price mechanism / market fails to allocate resources efficiently or leads to a net welfare loss) (1 mark). • Definition of a free market economy (the price mechanism is used to allocate resources) (1 mark). <p>NB: just a maximum of 2 definition marks available</p> <ul style="list-style-type: none"> • Public goods are under-provided due to the free rider problem / where it is possible for people to consume a good without paying for it once it is provided / inability of firms to collect revenue from consumers / Examples: defence, street lighting, lighthouses, flood defence schemes. (1+1 marks). <p>Rejection marks</p> <ul style="list-style-type: none"> • Option A incorrect since prices falling mean the market is working to eliminate the surplus. (1 mark). • Option C incorrect since firms will exit the market when lack of profits or losses made – a reflection of the market in operation as resources could be put to better use (1 mark). • Option D incorrect since this is government failure / there is no government intervention in a free market economy (1 mark). 	(4)

Question Number	Answer	Mark
6	<ul style="list-style-type: none"> • C (1 mark) • Explanation of imperfect market information (people lack knowledge to make informed choices) (1 mark). <p>NB: accept an accurate definition of asymmetric information as an alternative definition mark.</p> <ul style="list-style-type: none"> • Understanding of a pension (e.g. contributions that workers make from their income which they can use on retirement) (1 mark). • Application: workers may be unaware that their state pension might be insufficient to live off / the long time period from working to retirement may lead to people to not make adequate provision (1 + 1). • Definition of market failure (the price mechanism / market fails to allocate resources efficiently or leads to a net welfare loss) (1 mark). • Also award for idea: workers may rely on other sources of income / wealth (for example, downsizing their home / sale of second home / shares and bonds) (1 mark). <p>NB: a definition of public goods is not accepted unless used in the context of rejecting option A.</p> <p>Rejection marks</p> <ul style="list-style-type: none"> • Option A incorrect since pensions are excludable or rivalrous or rejectable in consumption so not public goods (1 mark). • Option B incorrect since there is an opportunity cost to making pension contributions in terms of forgoing current spending (1 mark). • Option D incorrect since tax incentives on pensions would lead to increased amount of pension contributions (1 mark). 	(4)

Question Number	Answer	Mark
7	<p>B (1 mark)</p> <ul style="list-style-type: none"> • Definition of public goods (non-rivalry and non-excludability) Also accept non-rejectable as one of these characteristics. (1 mark). • Definition of a free market economy (the price mechanism is used to allocate resources) (1 mark). • Explanation of free rider problem: it is possible for people to consume a good without paying for it once it is provided / so little incentive for producers to provide sufficient quantities or there is under-provision (1+1 marks). • Example of a public good, for example, defence, street lighting, lighthouses, flood defence schemes. (1 mark). <p>Rejection marks</p> <ul style="list-style-type: none"> • Option A incorrect since the resources used to produce public goods could have been used to produce other goods. (1 mark). • Option C incorrect since there is little incentive for private enterprise to provide public goods due to the difficulty in making consumers pay - so the government often finances them (accept provides them). (1 mark). <p>Note: do not double award if already credited in the explanation.</p> <ul style="list-style-type: none"> • Option D incorrect since people can consume public goods without paying for them so 'price' is irrelevant here. (1 mark). 	(4)

Section B

Question Number	Answer	Mark
10(a)	<p style="text-align: center;">Knowledge 2, Application 2, Analysis 2</p> <p>Knowledge/understanding 2 marks for e.g.</p> <ul style="list-style-type: none"> • producers know more than consumers (1) or the information is incomplete or imperfect (1) • misallocation of resources (1) <p>Application 1+1 mark for e.g.</p> <ul style="list-style-type: none"> • risk of requiring health care is an unknown (1) • Doctors know more than patients (1) <p>Analysis Up to 2 marks for any one of the following in linked development to market failure OR two limited examples of analysis (1+1):</p> <ul style="list-style-type: none"> • Under consumption of healthcare (1) so patients' health conditions deteriorate (1) • Consumers overcharged for health treatment (1) as they are unaware of the true cost of health care (1) • Unnecessary treatment (1) as consumers unaware of health needs (1) • Patients lack of awareness of waiting times and NHS priorities (1) 	(6)

Question Number	Indicative content		Mark
10(b)	<p style="text-align: center;">Knowledge 2, Application 2, Analysis 2</p> <ul style="list-style-type: none"> • Knowledge – public goods are non-excludable and non-rivalrous • Application - Extract C suggests public parks exhibit these features <p>Reasons why they are public goods</p> <ul style="list-style-type: none"> • 'free use' i.e. do not have to pay to enter • 'share the park with other users' • 'no exclusive use of the park' • Park run users 'share the park' with other users indicating one person using the park for a run does not have an impact on another person's enjoyment so non-rival. <p>NB Reasons for/against being a public good may be presented as either KAA or EV</p>		(6)
Level	Mark	Descriptor	
	0	A completely inaccurate response.	
Level 1	1–2	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no link between causes and consequences.	
Level 2	3–4	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or the answer may lack balance.	
Level 3	5–6	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are applied appropriately to the broad elements of the question.	

Question Number	Indicative content		Mark
10(b) continued	Evaluation 4		(4)
	Reasons against being public good <ul style="list-style-type: none"> • Local authorities planning on charging parkrun participants using public parks • Public parks already have exclusive areas e.g. booking tennis courts or football pitches • Parks may be rivalrous in consumption e.g. Hundreds of park run participants may get in the way of other users. • Parks are also excludable because they already have exclusive areas, gates can be closed at certain times 		
Level	Mark	Descriptor	
	0	No evaluative comments.	
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/ reference to context. No evidence of a logical chain of reasoning.	
Level 2	3–4	Evaluative comments supported by chains of reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question.	

Question Number	Answer	Mark
11	<p>Knowledge, analysis and application (up to 4 marks)</p> <ul style="list-style-type: none"> • Definition of asymmetric information (when one party has less market knowledge than the other party - usually consumers have less knowledge than producers) (1 mark). • Explanation why one party (consumers) have less market knowledge than producers (up to 3 marks for one point well developed or 2+1 for two or more points). <ul style="list-style-type: none"> ➤ Some consumers may not be fully aware of the dangers from tobacco smoking to their health and so continue to smoke. ➤ Consumers may be less aware of low tar / high tar tobacco brands. ➤ Some consumers simply do not believe government health warnings / see some heavy smokers reach old age. ➤ Many consumers lack medical knowledge - whereas producers can employ medical specialists and scientists. ➤ Some consumers may not be aware of dangers of passive smoking. ➤ Some consumers may withhold information about their smoking e.g. for insurance purposes. ➤ Asymmetric information may vary between countries, for example less developed countries are likely to suffer from lack of market knowledge on smoking. <p>Evaluation (up to 2 marks for any one point)</p> <ul style="list-style-type: none"> ➤ Asymmetric information does not exist here since most consumers are aware of dangers from smoking but are addicted. ➤ Most consumers likely to be aware of dangers from smoking due to public health campaigns e.g., education in schools and adverts and warnings & pictures on cigarette packets. ➤ Time span - smokers believe they may not get cancer until later in life / do not consider the issue until the long term. 	(6)