

Mark Scheme (Results)

Summer 2016

Pearson Edexcel GCE in Economics & Business (6EB04/01)

Unit 4B: The Wider Economics Environment and Business

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## **General Marking Guidance**

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

# **Section A Mark Scheme**

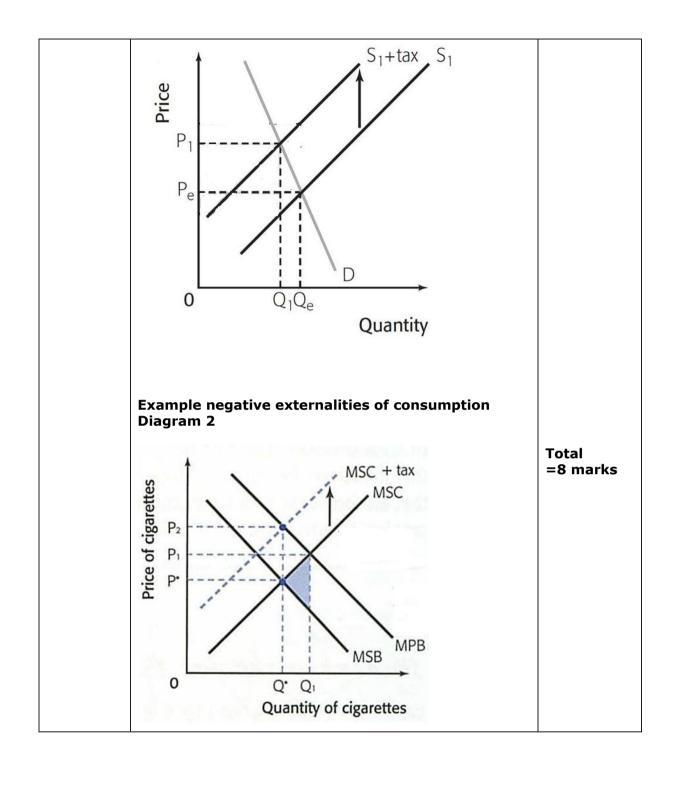
Question Number	Question	
1.	What is meant by the term <b>price elasticity of demand</b> ?(Evidence J Line 1)	
	Answer	Marks
	Knowledge/understanding up to 2 marks: A valid definition of PED e.g. The responsiveness of demand (1 mark) to changes in price(1 mark) OR correct formula with % change in Qd (1 mark) over % change in P (1 mark) e.g.  **\frac{\lambda}{\lambda} \frac{\text{Qd}}{\lambda}  **\frac{\lambda}{\lambda} \frac{\text{Qd}}{\lambda}	1-2
	Note: 1 mark for partial or vague definition (but a valid example or development such as reference to price inelastic demand for habitual goods such as cigarettes - 2 marks).	Total (2 marks)

Question Number	Question	
2.	What is meant by the term <b>real price of cigarettes</b> ? (Evidence J Line 6)	
	Answer	Mark
	<ul> <li>Knowledge up to 2 marks: A valid definition of real price e.g.</li> <li>nominal price (1 mark) minus rate of inflation (1 mark)</li> <li>the price of a good taking into account inflation (2 marks)</li> <li>nominal value - money values at different points in time (1)</li> <li>real values adjust for differences in the average price level (inflation) over time (1)</li> </ul>	1-2
	Note: 1 mark for partial or vague definition (but a valid example such as nominal price of cigarettes in year 1 compared to nominal price in year 2 minus inflation showing real price lifts to 2 marks).	Total (2 marks)

Question Number	Question	
3.	Analyse one likely impact on the UK market for traditional tobacco products of the increased demand for ecigarettes	
	Answer	Marks
	Knowledge 1, Application 1, Analysis 2  Knowledge:  E-Cigarettes are substitute products for traditional tobacco products (1 mark)	1
	<b>Diagram</b> : Correct diagram with correct axis labels, correct D and S curves and original equilibrium price and quantity labels (1 mark)	
	Application: Increasing demand for E-Cigarettes will reduce demand for traditional tobacco products at all price levels (1 mark) Reference to decline in traditional smoking (Evidence A) Diagram: inward shift of the demand curve (1 mark) Reference to decline in traditional smoking (Evidence A)	1
	Analysis: up to 2 marks With the supply of traditional tobacco products remaining the same (1 mark) this forces down equilibrium price and quantity supplied and demanded (1 mark) reducing sales revenue/profit for tobacco firms (1 mark) and tobacco tax revenue for government (1 mark) Diagram: New equilibrium price (1 mark) and quantity (1 mark) correctly labelled on diagram Example diagram:	1-2
	Price S1  P1  P2  Q2 Q1 Quantity	Total (4 marks)

Question Number	Question		
4.	Explain <b>one</b> negative externality of tobacco consumption.		
	Answer	Mark	
	Knowledge 1, Application 1, Analysis 2		
	Knowledge and understanding: 1 mark Negative externality is third party effect (cost) of production and/or consumption (1 mark) OR Negative effect (cost) upon individuals not directly involved in production or consumption of a good (1 mark) OR Tobacco is a demerit good (1 mark)	1	
	<b>Application: 1 mark</b> Passive smoking (1 mark) Litter (1 mark) Fires caused by discarded cigarettes (1 mark) use of data e.g. reference to NHS costs (1 mark)		
	<b>Analysis: up to 2 marks</b> e.g. Passive smoking increases likelihood of respiratory diseases or other diseases (1 mark) meaning increased cost to NHS / increased absence from work /lower life expectancy/premature death (1 mark)		
	Passive smoking is good example of where third party incurs costs (1 mark) although they are not directly involved in production or consumption (1 mark)	Total (4 marks)	

Number		
5.	Using a fully labelled supply and demand diagram, explain	
	how taxation of tobacco products may reduce negative	
	externalities. Answer	Mark
	Knowledge 2, Application 2, Analysis 4	TIGIK
	Up to 4 marks for correct diagram:	1-4
	op to 4 marks for correct diagram:	1-4
	Correct labelling of axes and correct labelling of supply	
	and demand curves (1 mark) Initial equilibrium P and Q (1 mark)	
	Inward shift of supply curve (1 mark)	
	New equilibrium P and Q (1 mark)	
	Written explanation up to 4 marks:	1-4
	<ul> <li>The tax forces up the price therefore reducing consumption of tobacco products (1 mark) therefore reducing negative externalities associated with smoking such as lung cancer (1 mark)</li> <li>Demand curve is relatively steep (price inelastic) (1 mark)</li> <li>Tobacco and e-cigarettes are addictive (1 mark)</li> <li>If PED is inelastic then the reduction in consumption may be proportionately less than the increase in price (1 mark) thus effective in raising tax revenue which can be spent on health education (1 mark).</li> <li>Impact may demand upon the income groups of the consumers (1 mark) raising prices may reduce consumption in some groups more than others (1 mark)</li> <li>Example normal supply and demand Diagram 1</li> </ul>	



Question Number	Quest	ion	
<b>6.</b>	"There is clear evidence that increasing the costs of smoking encourages smokers to quit and discourages young people from taking it up." (Source: Chancellor George Osborne; Budget Statement in March 2012) Assess this view in relation to the evidence on smoking in the UK.		
Level	Mark	•	Possible Content
Level 1	1-2	Candidate shows some knowledge and understanding.	e.g. Law of demand states that more is bought as price decreases and less is bought as price e.g. indirect tax is specific or ad valorem (%) tax or both e.g. Reference to taxation rates in UK
Level 2	3-4	Some relevant awareness in context.	e.g. PED inelastic due to habitual consumption/addiction to nicotine e.g. peer/social pressure important in determining smoking e.g. taxation is already high e.g. reference to data/case study evidence e.g. nicotine itself is not dangerous, it is the other chemicals produced from smoking that is harmful
Level 3	5-6	Cap at 5 if no context.  Valid development in context  Reasons/causes/costs and/or consequences are outlined.  Either pros or cons could be addressed. Answer will be one-sided	e.g. If PED is inelastic then the reduction in consumption may be proportionately less than the increase in price thus not effective e.g. if YED negative then taxation may work with higher income groups but not with lower income groups e.g. if PED inelastic then tax burden with consumer rather than producer (unfair) e.g. if PED inelastic may be effective in raising tax revenue e.g. impact may demand upon the income groups of the consumers (young smokers may be put off, older smokers may not) e.g. raising prices may reduce consumption in some groups more than others e.g. higher rates of tobacco tax may increase unofficial

			market therefore reduce tax
			revenue for government
			e.g. regressive tax – low
			income groups pay more of
			their spent income in tax
Level 4	7-10	Evaluation: Expect to see evaluative	OR/AND
20001 4	/ 10	points based on analysis of the	e.g. PED may be elastic for
		economics/ business situation. <b>Both</b>	some groups such as new
		pros and cons required.	smokers thus the increase in
		7-8 marks - only one side in context	tax can be justified
		9-10 marks - both sides in context	e.g. YED negative may mean
			taxation could work for higher
			income groups so effective in
		Answer is coherent, has some	further reducing smoking and
		balance, is related to the context and	can therefore be justified
		makes good use of concepts, theories	e.g. raising price of tobacco
		and/or methods.	products may mean cheaper,
			safer alternatives (e-
			cigarettes) become more
			attractive
			e.g. combination of methods
			such as education and quit
			smoking support required but
			high taxation (price) is one
			method
			e.g. high tax revenues can be
			used to pay for health
			treatment and/or stop
			smoking support
			e.g. tax revenues can be used
			to pay for NRT (including e-
			cigarettes) to help reduce
			smoking

## **Section B Mark Scheme**

Question Number	Question		
7.(a) QWC i-iii	Assess the case for the UK government regulating e-cigarettes in the same way as tobacco products (20)		
Level	Mark	Descriptor	Possible Content
Level 1	1-3	Candidate shows knowledge of regulation in the UK  Written communication may be poor with frequent errors in spelling, punctuation and grammar and a weak style and structure of writing. There may be problems with the legibility of the text.	e.g. regulation is creating and enforcing rules and laws. e.g. enforcement is through court action e.g. penalties may be imposed if regulations are breached e.g. regulation may be at EU rather than UK level
Level 2	4-8	Candidate applies information in evidence to raise points in context.  There is some application of regulation to e-cigarettes  The candidate may use some Economics and Business terminology but the style of writing could be better/there may be some errors in spelling, punctuation and grammar.	e.g. Packaging, labelling, importing and distribution rules are examples of regulation/ potential regulation.  e.g. Food Standards Agency responsible for regulation of law  e.g. Dept of Health responsible for health warnings in UK  e.g. WHO (Evidence A) are calling for the same regulation for e-cigs as all nicotine-containing products  e.g. Local authorities throughout the UK are the enforcement authorities for businesses like bars, cafes, restaurants, shops and public spaces  e.g. EU Tobacco Product Directive May 2016 classifies e-cigarettes with nicotine content less than 20mg as a tobacco product
Level 3	9-14	Analysis must be present. Valid development in context of the likely economic effects of regulating e-cigarettes. Reasons/causes/costs and/or consequences. Either pros or cons could be addressed.  Answer will be one-sided.  Low level 3: 9 - 10 marks Analysis weak: only one reason/cause/cost or consequence is outlined.  Cap at 9 if no context.	e.g. UK government regulation could be harmonised with traditional tobacco products e.g. Regulation may restrict supply and thus reduce consumption e.g. regulation can treat e- cigarettes as a medicine and be regulated in the same was as over- the-counter medicines e.g. E-cigarettes may lead to nicotine dependency and smoking at some stage (Evidence B) e.g. Research to suggest negative health effects – although currently lacking – should not be an excuse

		Medium level 3: 11 – 12 marks Analysis is more developed: two of reasons/causes/costs and/or consequences are outlined.  High Level 3: 13 – 14 marks Analysis is wide-ranging; three or more well explained reasons/causes/costs and/or consequences are at least partially developed.  Answer will be one-sided. The candidate uses Economics and Business terminology quite well/style of writing is appropriate for the question/reasonable to good spelling, punctuation and grammar.	for lack of regulation (Evidence A & B) e.g. taxation could be harmonised with traditional cigarettes e.g. market failure – demerit good – only was to reduce production and consumption is through regulation e.g. Although less harmful than traditional cigs still potentially harmful so should be subject to regulation e.g. lack of quality control means some e-cigarettes may contain unknown substances and be potentially harmful e.g. what we don't know about e-cigarettes may be more important than what we do know
Level 4	15-20	Evaluation must be present. Expect to see evaluative points based on analysis of the economics/ business situation. Both pros and cons required.  Low Level 4: 15 – 16 marks Some evaluative points are made, based on analysis of the economy and / or case study information without arriving at a conclusion/ judgement.  Maybe only one side of the argument in context.  Medium Level 4: 17-18 marks A judgement is attempted with some balance showing the economic consequences. Expect an attempted conclusion.  High Level 4: 19 – 20 marks Works to convincing evaluative conclusion. At this level, some economic theory is expected e.g. social costs/ benefits, macroeconomic consequences etc.  Candidate uses Economics and Business terminology fluently with good spelling, punctuation and grammar.	e.g. E-cigarettes are less harmful than traditional tobacco products thus could be a substitute or used to break the smoking habit (Evidence E) e.g. as lack of evidence on harmful effects, harmonising tax with traditional tobacco products may cause more harm than good e.g. free market arguments – consumer sovereignty argument – consumers make their own choices knowing the risks they are taking e.g. employment created in E-cigarette industry a potential source of economic growth and employment for UK e.g. WHO (Evidence A) are calling for the same regulation for e-cigs as all nicotine-containing products and this is what has happened with EU TPD May 2016

Question	Question		
Number <b>7.(b)</b>	Evaluate the argument that the National Health Service (NHS) should charge		
QWC i-	patients for the treatment of smoking related conditions? (30)		
Level	Mark	Descriptor	Possible Content
Level 1	1-3	Candidate shows knowledge and understanding of regulation. Candidate shows knowledge of NHS funding.  To achieve a mark of 1 – 3 the candidate will have struggled to use Economics and Business terminology legibly with frequent errors in SPG and / or weak style and structure of writing.	e.g. Set up in 1948 and is funded by Government from taxpayers (9% of GDP) e.g. NHS is already funded from general taxation paid by smokers and non-smokers. e.g. NHS is a merit good e.g. Set up to meet the needs of everyone, free at the point of delivery and based in clinical need, not ability to pay
Level 2	4-8	Candidate applies information in evidence to raise points in context.  Candidate uses some Economics and Business terms but the style of writing could be better. There will be some errors in SPG. Legibility of the text could have been better in places.	e.g. Problem -finite resources/scarce resources (2015-16 NHS spending was £141bn) so cannot treat everyone e.g. Charging for treatments might reduce cost to taxpayer via less NHS spending e.g. money could be spent on other diseases/opportunity costs of treating smoking related diseases e.g. diseases associated with smoking (Evidence D) include lung cancer, emphysema, heart disease e.g. the direct costs of smoking to the NHS estimated at between £2.7 billion-£5.2 billion per year, equivalent to around 5% of the total NHS budget each year
Level 3	9-16	Analysis must be present. Valid development in context.  Reasons/causes/costs and/or consequences.  Either pros or cons could be addressed.  Answer will be one-sided.  Low level 3: 9 - 10 marks  Candidate will attempt very basic analysis of regulation of the tobacco industry and its impacts. One or two reasons/causes/costs and /or consequences are outlined.  Cap at 9 for no context.	e.g. improved health, less work absenteeism and higher productivity and economic growth e.g. less smoking equals less litter and less costs for clearing up e.g. less smoking means less passive smoking, reduced costs of treating passive smoking related diseases e.g. for smokers internalise the full social costs - might make some think twice about starting or continuing a smoking e.g. lower NHS costs in short and long term (Evidence E and Evidence G) e.g. the NHS should not pay for

Medium level 3: 11 – 13 marks
Candidate looks at a range of
reasons/causes/costs and/or
consequences of regulation. Answer
will be in context.

<u>High Level 3: 14 – 16 marks</u>
Analysis is wide-ranging; three or more well explained reasons/causes/costs and/or consequences are outlined.

Answer will be clearly in context.

Answer will be one-sided.

The candidate uses Economics and Business terminology quite well/style of writing is appropriate for the question/reasonable to good spelling, punctuation and grammar.

inappropriate lifestyle choices – smokers should pay for their own treatment especially if they can afford it (means testing) e.g. Evidence F shows that (39%) of smokers are unemployed so do not contribute income tax and are on benefits so do not contribute to the cost of their treatment therefore they should pay

## **Level 4** 17-30

Evaluation must be present. Expect to see evaluative points based on analysis of the economics/ business situation. **Both pros and cons required** 

Threshold Level 4: 17-18 marks One limited attempt to evaluate arguments made.

Low Level 4: 19-21

More than one limited attempt to evaluate arguments made.

Mid Level 4: 22-24

Detailed evaluation of arguments made, which will be based on a range of sources and/or specification areas

High Level 4: 25-30

Balanced conclusions and/or recommendations based on sound analysis of the economic situation and case study information.

Candidate will make a clear conclusion as to the extent to which the UK Government should regulate the tobacco industry.

Candidate uses Economics and Business terminology precisely and effectively with good to excellent spelling, punctuation and grammar.

#### OR/AND

# **Arguments against:**

e.g. Evidence F - 21% of smokers are employed (paying income tax) and consequently view the NHS as an entitlement

e.g. Evidence G - 82% of the price of a packet of 20 cigs is excise duty (tax) so therefore smokers have already paid for treatment e.g. Evidence G –UK Treasury receives £12bn tax revenue from smoking plus income tax from employees who work in the tobacco industry which more than pays for the treatment of smokers (£2.5-£6bn)

e.g. if free treatment is not available for smoking related illnesses, then this must also apply to obesity, alcohol (demerit goods), sport injuries (merit good)— "slippery slope" argument e.g. Unfair to retrospectively make smokers liable for damage already done

e.g. Most smoking related use in A&E comes from older smokers who have been smoking a long time and have already contributed a great deal in indirect and direct tax

e.g. no evidence that making patients pay would reduce smoking e.g. regressive tax – smoking

tends to be more prevalent in lower income groups e.g. long term costs of no treatment may be higher than short term saving of making the patient/smoker pay e.g. costs of administration may be higher than revenue from charges (government failure) e.g. smoking habitual thus prospect of paying for treatment not likely to reduce smoking habit e.g. Evidence F shows that (39%) of smokers are unemployed so do not contribute income tax and are on benefits so do not contribute to the cost of their treatment therefore they would not be able to pay e.g.no treatment for chronic conditions in short-term may increase costs as these may become acute conditions in the long-term