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Practice (Mock) Exam Paper (1)

for

AQA A-level Economics

Paper 1

Markets and Market Failure

Practice (Mock) Exam Paper
Detailed Mark Scheme
Example Model Answers

Minimising Workloads, Maximising Performance

FOREWORD: Important - Read First

This resource contains 1 of 4 Practice (Mock) Examination Papers for AQA's A-level Economics Specification **Paper 1** examination, entitled **'Markets and Market Failure'**, which concerns **Section 4.1** of the AQA A-level Economics Specification. The full set of 4 papers can be purchased from APT's website: www.apt-initiatives.com, or individually from the TES website: www.tes.com/teaching-resources.

The full set of 4 question papers have been written to include questions that **test as many areas listed in the specification subject content relating to Section 4.1** as possible. An overview of economic topics / concepts tested in this particular paper is provided immediately after this 'Foreword' and before the question paper (on page iii below).

Question papers, mark schemes and answers have been written taking into account the **specimen assessment material** (SAM) for **A-level Paper 1** published by AQA for the launch of **the new A-level Economics specification (from 2015)**. The structure, style and format of question papers and mark schemes are in line with this SAM, with a few minor differences / additions considered beneficial for both teachers and their students. These are highlighted in the text that follows.

In line with AQA's SAM for A-level Paper 1, each question paper contains **two** sections: Section A and Section B. Time to complete each paper is **2 hours (ie 120 minutes)**, and there are **80 marks** available - 40 marks for each section.

Within Section A, students are required to **choose between two contexts** and answer **data response questions** requiring written answers relating to their chosen context. Section B comprises a choice of 'essay' questions requiring written answers. The specification states that students select one essay question from three worth 40 marks. The SAM also states that students should select 'one essay' from Section B. However, what students are required to do in the SAM is to **select a set of 2 questions out a choice of 3 sets of 2 questions**. One question in each set is worth 15 marks, and the other is worth 25 marks, (as opposed to one essay worth 40 marks). Each of these questions is marked using a different levels of response marking grid.

As per the AQA SAM published at the time of writing, the level of response marking grids to be used when marking 9 mark, 15 mark and 25 mark questions do not contain information specific to the question; the content of these grids remains the same regardless of the 9, 15 or 25 mark question posed. This generic AQA material is reproduced by permission of AQA.

The questions included in each paper **ensure students gain appropriate exam practice across AQA's four A-level assessment objectives. Marks** have been **allocated** in line with **AQA's assessment objective grid** included at the end of the **specimen mark scheme for Paper 1**. An assessment objective grid is provided after each mark scheme / set of answers which shows the total marks allocated for each assessment objective for each paper.

Unlike the AQA SAM for Paper 1 (published at the time of writing), answers are provided **in paragraph form**, rather than a list of relevant points anticipated to be raised in the answer.

To provide further support to teachers and their students, answers have also been **annotated to show where individual assessment objectives are demonstrated** - with 'Kn' for knowledge, 'Ap' for application, 'An' for analysis and 'Ev' for evaluation. Although it is possible to demonstrate more than one AO in one sentence, points made in answers are **generally** annotated to highlight the **main AO demonstrated**. With regard to these annotations, it should also be appreciated that there is always scope for differences in interpretation of answers in relation to mark schemes, even between experienced examiners.

Answers to **questions worth 15 or more marks** typically contain **a range of examples of comments which attract a mark**. As a result, some of the answers presented may seem a little long, given the time available. However, the total answer may attract **multiple annotations which go beyond the maximum mark available** for that particular question. Hence, there is scope to cut such answers down and still secure the maximum marks.

Finally, it should be appreciated that, with the exception of answers to calculation questions, answers should not be seen as exhaustive - **any valid response should be given due credit**. Mark schemes and answers should, ultimately, be seen as **a set of guidelines**, not rigid performance criteria.

To conclude, whilst every effort has been made to provide appropriate question papers, as well as mark schemes and answers for the questions posed, these question papers, mark schemes and answers are intended as **an aid to the teacher** who must retain full responsibility for checking specification requirements and the exam board assessment material, and the final delivery of subject matter to students. In this context, APT is always available to discuss any aspect of the question papers, mark schemes and answers, should the teacher wish to discuss APT's interpretation.

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These Practice (Mock) Exam Papers for AQA A-level Economics Paper 1 (on Section 4.1 of the A-level Specification) are one of several resources produced by **APT Initiatives Ltd** to support teachers and students taking AQA AS and A-level Economics examinations. Multiple Choice questions (interactive and printable tests) have been produced for AS Paper 1 and AS Paper 2, as well as for the entire AQA A-level specification, and Practice (Mock) Exam Papers have also been produced for Paper 2 (on Section 4.2 of the A-level Specification) and Paper 3 (on the entire A-level specification). Further information on each of these resources, as well as other resources for Business and Economics qualifications, is available on APT's website: www.apt-initiatives.com.

APT Initiatives Ltd can be contacted directly with any orders, queries or feedback via the website: www.apt-initiatives.com, via email: support@apt-initiatives.com or by phone: 01952 540877.

<u>Overview of Economics Topics / Concepts Tested</u>

The grid below shows the Economics topics / concepts tested in the practice paper contained in this resource, by which question in the paper. Note: This grid should not be used as a source of reference of all the subject content that candidates are required to study for AQA A-level Economics, as it contains information relating to only part of this subject content, and this subject content is also liable to frequent review. Such information should be obtained directly from the AQA website, where the most current versions of AQA specifications are placed.

Subject Content	Q No.
Economic methodology and the economic problem	
Economic methodology	
Economics as a social science.	10
Scarcity, choice and the allocation of resources	
The fundamental economic problem is scarcity and that it results from limited resources and economic wants.	09
Scarcity means that choices have to be made about how scarce resources are allocated between different uses.	09
Choices have an opportunity cost.	09
Production possibility diagrams	
Production possibility diagrams illustrate different features of the fundamental economic problem, such as: resource allocation, opportunity cost and trade-offs, unemployment of economic resources, economic growth.	10
Individual economic decision making	
Consumer behaviour	
Rational economic decision making and economic incentives.	10 13
Imperfect information	
The importance of information for decision making.	10
Behavioural economics and economic policy	
Choice architecture and framing.	10
Nudges.	10
Price determination in a competitive market	
Price, income and cross elasticities of demand	
The factors that influence these elasticities of demand.	10
The determinants of the supply of goods and services	
A supply curve shows the relationship between price and quantity supplied.	11
Understand that higher prices imply higher profits and that this will provide the incentive to expand production.	11
The causes of shifts in the supply curve.	11
The determination of equilibrium market prices	
How the interaction of demand and supply determines equilibrium prices in a market economy.	08 14
Production, costs and revenue	
Production and productivity	
The meaning of productivity, including labour productivity.	10
The law of diminishing returns and returns to scale	
Returns to scale.	11
Costs of production	
The difference between fixed and variable costs.	07
The difference between short-run and long-run costs.	07
Economies and diseconomies of scale	
The relationship between returns to scale and economies or diseconomies of scale.	11
The relationship between economies of scale, diseconomies of scale and the shape of the long-run average cost curve.	07 11
The concept of the minimum efficient scale of production.	07

Profit	
Profit is the difference between total revenue and total costs.	07
The difference between normal and abnormal (supernormal) profit.	08
Technological change	
Technological change can influence the structure of markets.	11
Perfect competition, imperfectly competitive markets and monopoly	
Market structures	
Factors such as the number of firms, the degree of product differentiation and ease of entry are used to distinguish between different market structures.	11
The objectives of firms	
The models that comprise the traditional theory of the firm are based upon the assumption that firms aim to maximise profits.	12
The profit-maximising rule (MC=MR).	12
The reasons for and the consequences of a divorce of ownership from control.	12
Firms have a variety of other possible objectives.	12
The satisficing principle.	12
Monopolistic competition	
The formal diagrammatic analysis of the monopolistically competitive model in the short and long run.	08
The main characteristics of monopolistically competitive markets.	08
Monopolistically competitive markets will be subject to non-price competition.	08
Oligopoly	
The main characteristics of oligopolistic markets.	06
Oligopoly can be defined in terms of market structure or in terms of market conduct (behaviour).	06
Concentration ratios and how to calculate a concentration ratio	06
The dynamics of competition and competitive market processes	
Both the short-run and long-run benefits which are likely to result from competition.	08
That firms do not just compete on the basis of price but that competition will, for example, also lead firms to strive to improve products, reduce costs, improve the quality of the service provided.	08
Contestable and non-contestable markets	
Concepts such as sunk costs and hit-and-run competition.	11
Market structure, static efficiency, dynamic efficiency and resource allocation	
The conditions required for productive efficiency (minimising average total costs) and allocative efficiency (price = marginal cost).	11
The labour market	
The demand for labour, marginal productivity theory	
Influences upon the supply of labour to different markets	
The supply of labour to a particular occupation is influenced by monetary and non-monetary considerations.	03 04
The supply curve for labour shows the relationship between the wage rate and number of workers willing to work in an occupation.	03
The causes of shifts in the market supply curve for labour.	03
The determination of relative wage rates and levels of employment in perfectly competitive labour markets	
Role of market forces in determining relative wage rates.	02
The market mechanism, market failure and government intervention	
How markets and prices allocate resources	
The rationing, incentive and signalling functions of prices in allocating resources and coordinating the decisions of buyers and sellers in a market economy.	10 14
The meaning of market failure	
Market failure occurs whenever a market leads to a misallocation of resources.	10 14
The difference between complete market failure (resulting in a missing market) and partial market failure (where a market exists but contributes to resource misallocation).	10 14
How public goods, positive and negative externalities, merit and demerit goods, monopoly and other market imperfections, and inequalities in the distribution of income and wealth can lead to market failure.	10 13 14

Public goods, private goods and quasi-public goods	
Pure public goods are non-rival and non-excludable and recognition of the significance of these characteristics.	13
The difference between a public good and a private good.	13
The free-rider problem.	13
Positive and negative externalities in consumption and production	
Externalities exist when there is a divergence between private and social costs and benefits.	09 10 14
Why negative externalities are likely to result in over-production and positive externalities are likely to result in underproduction.	09 10 14
Merit and demerit goods	
The classification of merit and demerit goods depends upon a value judgement.	10 12
Such products may be subject to positive and negative externalities in consumption.	10 12
How under-provision of merit goods and over-provision of demerit goods may also result from imperfect information.	10 12
Market imperfections	
Why imperfect and asymmetric information can lead to market failure.	10
Why the immobility of factors of production can lead to market failure.	04
Government intervention in markets	
The existence of market failure, in its various forms, provides an argument for government intervention in markets.	04 09
Governments influence the allocation of resources in a variety of ways, including through public expenditure, taxation and regulation.	04 09 10
Governments have a range of objectives and these affect how they intervene in a mixed economy to influence the allocation of resources.	04 09 10
The use of indirect taxation, subsidies, price controls, state provision and regulation, the extension of property rights and pollution permits to correct market failure.	04 09 10 12 14
Government failure	
Government failure occurs when government intervention in the economy leads to a misallocation of resources.	10 14
Governments may create, rather than remove, market distortions.	10 14
Government intervention can lead to unintended consequences.	10 14

Note: The Economics subject content listed in the above grid is based on the AQA A-level Economics specification published at the time of writing. As stated in the introduction to this grid, it should not be used as a source of reference of all the subject content that candidates are required to study for AQA A-level Economics, as it contains information relating to only part of this subject content, and this subject content is also liable to frequent review. Such information should be obtained directly from the AQA website, where the most current versions of AQA specifications are placed.

APT Initiatives Ltd: **Practice Exam Paper (1)** for

AQA

A-level

ECONOMICS

7136/1

Paper 1 Markets and market failure

<div align="right">

Time allowed: 2 hours

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Materials
To complete this practice exam paper you should have:
- lined paper (in the actual exam you will be given a 12-page answer book).
- a pen, pencil and a calculator.

Instructions
- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Write your name at the top of your lined paper and the relevant question number next to each of your answers. (In the actual exam you will be required to complete key information on the front of your answer book). The **Paper Reference** is 7136/1.
- In **Section A,** answer **EITHER** Context 1 **OR** Context 2.
- In **Section B,** answer **ONE** essay (set of 2 questions).

Information
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- There are 40 marks for **Section A** and 40 marks for **Section B**.

Advice
- You are advised to spend 1 hour on **Section A** and 1 hour on **Section B**.

<div align="center">

SECTION A

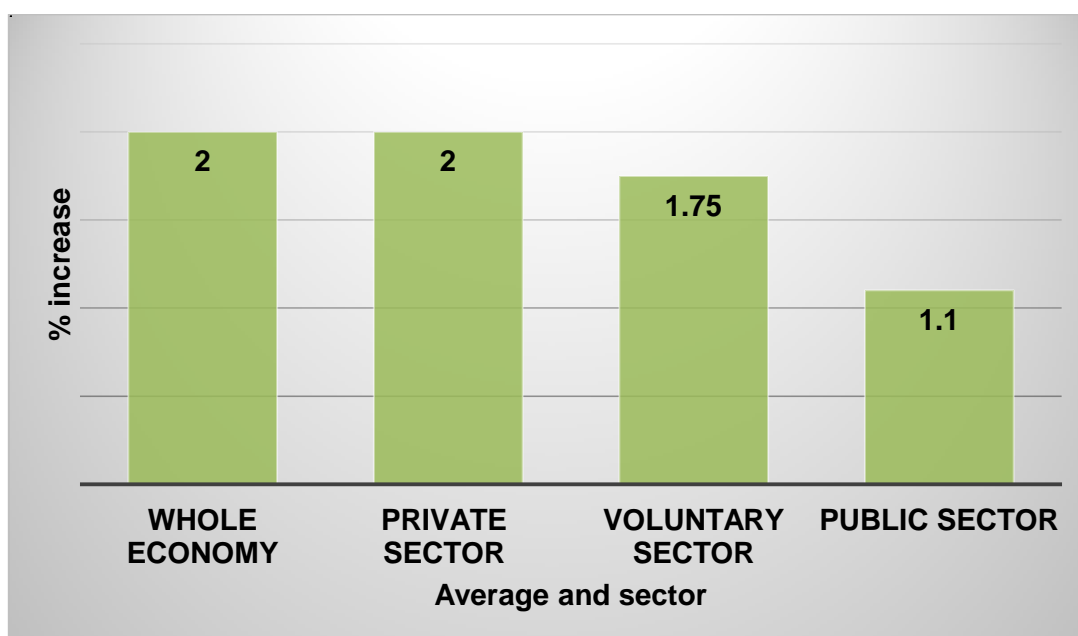Answer **EITHER Context 1 OR Context 2.**

</div>

EITHER

Context 1   **Total for this Context: 40 marks**

The labour market

Study **Extracts A, B and C** and then answer **all** parts of Context 1 which follow.

Extract A: UK annual average pay settlements: Year to January 2016

<div align="center">

Source: 'Pay settlements and average earnings', Page 1, UNISON August 2016, (accessed March 2017)

</div>

Extract B: UK income tax thresholds to rise and the graduate premium under threat

As a result of the UK 2016 Autumn Statement, increases in income tax thresholds will go ahead as planned. For the 2017-18 tax year, the higher-rate 40 percent income tax threshold will rise to £45,000. Philip Hammond, the Chancellor, has pledged that the higher-rate threshold will rise again to £50,000 by the end of the 2020 parliament.	
In a market economy with wage rates determined by the demand and supply of labour, predicting how income tax rates affect labour supply has long been an important concern for economic policy analysis.	5
There have been concerns that a dramatic increase in the number of young people going to university in the UK, would lead to a decline in graduate wages relative to those of non-graduates. Despite this, the Institute for Fiscal Studies (IFS) says the graduate premium has remained the same for two decades.	10

It says, however, that further increases in graduate numbers could start to erode the premium. "It's just that the gain might be smaller in the future than it is now," the report notes, adding that going to university will probably remain worthwhile.	
According to the IFS, median wages for both graduates and non-graduates fell by 15% between 2008 and 2015, but the wage difference between graduates and non-graduates has stayed at about 35% for the past two decades.	15

Adapted from: 'Autumn Statement: what does it mean for income tax?', Brodbeck, S., The Telegraph, November 23 2016, http://www.telegraph.co.uk/tax/income-tax/autumn-statement-higher-rate-income-tax-will-rise-50000-2020/ (accessed November 2016); 'Gap between graduate and non-graduate wages 'shows signs of waning'', Weale, S., Adams, R., August 18 2016, the Guardian, https://www.theguardian.com/education/2016/aug/18/gap-between-graduate-and-non-graduate-wages-shows-signs-of-waning (accessed December 2016)

Extract C: UK labour market mobility

In an attempt to reduce unemployment caused by occupational immobility, and as part of the new Fuller Working Lives strategy, ministers and business leaders in the UK have set out the need for firms to retrain older workers. The strategy outlines how a coalition of jobcentres and businesses can combine to support workers to take a new direction.	
The government has stated its aim of reducing the UK economy's reliance on the services sector, and increasing employment opportunities through vocational retraining. This was a key driver in leading to the former Chancellor George Osborne's plans to create a Northern Powerhouse.	5
A government spokesman said recent interventions were part of its plan to tackle weaknesses in the UK's productivity levels, and to further reduce unemployment.	10
The current Chancellor, Philip Hammond, said the UK needed to do significantly more in training and "upskilling" young people and the unemployed in order to prepare the economy for a post-Brexit future.	
The Institute of Directors said that financially supporting workers through their retraining is important, but that any industrial strategy must concentrate on skills and not simply cash injections. The government should focus on the financing of the retraining of anyone who becomes unemployed, so that business communities can adapt to changes in the economy.	15
Given the potential consequences of inaction on this issue, it's important to get both the diagnosis and the official intervention right.	20

Adapted from: 'Theresa May gives details of action plan for British industry' BBC Business, January 2017 http://www.bbc.co.uk/news/business-38713327 (accessed March 2017) and 'Employment boost for older workers', Gov.UK, February 2017, https://www.gov.uk/government/news/employment-boost-for-older-workers, (accessed March 2017)

| 0 | 1 |

Using the data in **Extract A**, calculate, to **two** decimal places, the average pay increase awarded to the voluntary sector as a percentage of the average pay increase awarded across the whole economy.

[2 marks]

| 0 | 2 |

Explain how the data in **Extract A** shows that public sector workers have been disadvantaged in terms of their average pay settlement.

[4 marks]

| 0 | 3 |

Extract B (lines 3-4) states that 'the higher-rate rate threshold will rise again to £50,000 by the end of the 2020 parliament'.

With the help of a diagram, explain how the increase in the higher-rate income tax threshold could affect the supply of labour.

[9 marks]

| 0 | 4 |

Extract C (lines 16 -18) states that 'the government should focus on the financing of the retraining of anyone who becomes unemployed, so that business communities can adapt to changes in the economy'.

Using the data in the extracts and your economic knowledge, evaluate the view that government intervention can reduce labour market failure caused by the occupational immobility of labour.

[25 marks]

Turn over…

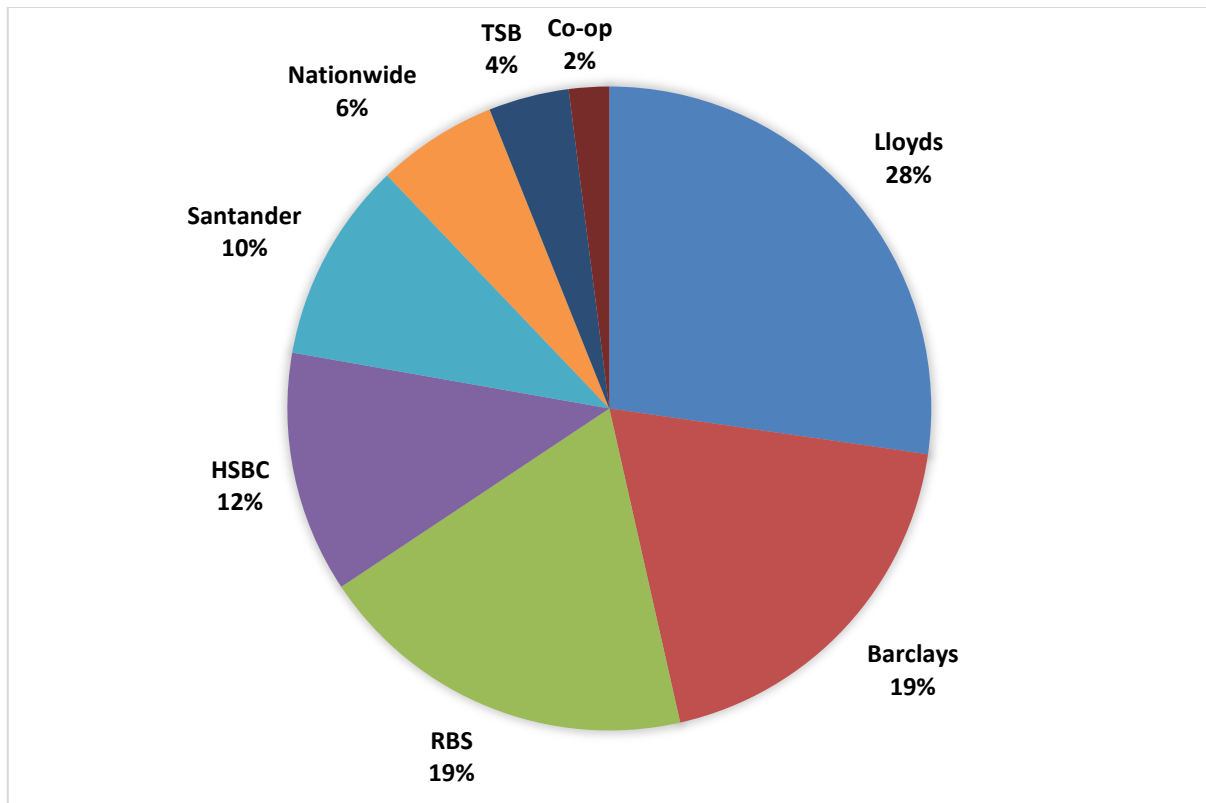Do **not** answer Context 2 if you have answered Context 1.

OR

Context 2

                                                    Total for this Context: 40 marks

Competition

Study **Extracts D, E and F** and then answer **all** parts of Context 2 which follow.

Extract D: UK banks' market shares by current accounts (% rounded)

Source: Economics online, http://www.economicsonline.co.uk/Business_economics/Banks.html, (accessed September 2016)

Extract E: Sweet nothings for small UK sugar beet farmers

British Sugar is a company valued at £12.9bn and is said to have a monopsony on the purchase of sugar beet grown in the UK. As a result, the Land Workers' Alliance (LWA) are unhappy that small scale farmers cannot grow and process sugar beet profitably. In a show of their market power, British Sugar announced the 2017/18 sugar beet price as early as July 2016.	5
The LWA sees the future of farming as local and sustainable, not in the sort of anti-competitive monopsony that British Sugar represents. British Sugar processes a million tonnes of sugar a year in the UK, purchasing the crops of 3,500 small sugar beet growers. None of these farmers feel they have an alternative method of processing their sugar beet.	
British sugar has significant economies of scale, the existence of which it claims helps small sugar beet farmers to make a profit. With no good substitutes for processing sugar beet in the UK, small farmers feel exploited as they have to accept the price that British Sugar announces it will purchase their crop for.	10

Source: Case, P., 'Small farmers target British Sugar demanding 'fair deal'', April 30 2015, Farmers Weekly, http://www.fwi.co.uk/news/small-farmers-target-british-sugar-demanding-fair-deal.htm; Rudd, S, 'British Sugar have announced the sugar beet price for the 2017/18 crop', 21 July 2016, Larking Gowen, Chartered Accountants, http://www.larking-gowen.co.uk/blog/british-sugar-have-announced-the-sugar-beet-price-for-the-201718-crop/, (accessed September 2016)

Extract F: Uber riding high

Competition in the taxi and private hire car market has seen something of a revolution with the advent of Uber, a ride-sharing app. Uber's rise has been meteoric. What began as a tiny San Francisco start-up in 2010, is now a £60bn company spanning 400 cities across 70 countries by 2016.	
Uber allows a smartphone user to view a map showing vacant Uber cars in their area. The rider can then book the vehicle, be picked up within minutes, and pay a pre-displayed fare online. Uber claim to be cheaper on average as well. In London, a 20-minute, two-mile trip in a black cab costs £14. An Uber driver will do the same journey for as little as £8.	5
Abnormal profits and low barriers to entry in the taxicab market have led to Uber expanding its UK operations. In the five years to 2016, the number of Uber drivers in London has grown to over 25,000, exceeding the number of black cab drivers. As Uber expands, the demand for black cab rides in London has decreased, as has the number of new taxi companies registered in London. In 2015, the figure was 65% lower than the previous year, the first fall since 2008.	10

Source: Knight, S., 'How Uber Conquered London, The Guardian, 27 April 2016, https://www.theguardian.com/technology/2016/apr/27/how-uber-conquered-london; 'Uber expansion leaves taxi industry in urgent need of a lift' The Financial Times, https://www.ft.com/content/c4ded228-1910-11e6-bb7d-ee563a5a1cc1, (accessed September 2016)

0 5 If the UK bank's total market value by current account was £8.5 billion in 2014, using the data in **Extract D**, calculate the actual value of HSBC's current account in 2014.

[2 marks]

0 6 Explain how the data in **Extract D** shows the UK bank market to be an oligopoly.

[4 marks]

0 7 **Extract E** (lines 10-11) states that 'British sugar has significant economies of scale, the existence of which it claims helps small sugar beet farmers to make a profit'.

With the help of a diagram, explain how the economies of scale of British Sugar helps small sugar beet farmers to make a profit.

[9 marks]

0 8 **Extract F** (lines 9-10) states that 'Abnormal profits and low barriers to entry in the taxicab market have led to Uber expanding its UK operations'.

Using the data in the extracts and your economic knowledge, evaluate the likely impact of new firms, attracted by abnormal profits, entering a monopolistically competitive market in the long run.

[25 marks]

Turn over…

SECTION B

Answer **one** set of 2 questions (essay 1, 2 or 3) from this section.

Each set of 2 questions (essay) carries 40 marks.

EITHER

Set (Essay) 1

> Vaping is the act of inhaling and exhaling the water vapour produced by a tobacco-free electronic device called an e-cigarette. Public Health England claims that vaping is at least 95% safer than traditional tobacco smoking. The government is assessing whether vaping could, therefore, reduce the drain on the resources of the NHS and increase the productive potential of the economy.

| 0 | 9 |

Using examples to illustrate your answer, explain why opportunity cost should be considered when assessing the benefits of an activity such as vaping as an alternative to traditional tobacco smoking.

[15 marks]

| 1 | 0 |

The Government would like to improve the health and labour productivity of the UK population by encouraging people to stop smoking. Using your knowledge of **both** conventional economic theory **and** behavioural economics, assess alternative policies that the Government might adopt to try to achieve this objective.

[25 marks]

OR

Set (Essay) 2

> Traditional economic theory assumes that competitive firms within a market will always seek to maximise their profit whilst the existence of barriers to entry may mean that some firms do not even get the chance to compete.

| 1 | 1 |

Explain how barriers to entry can determine the degree of competition in a market.

[15 marks]

| 1 | 2 |

Discuss the view that profit maximisation will always be the objective of a firm.

[25 marks]

OR

Turn over…

Set (Essay) 3

> It is generally accepted that markets fail, resulting in the need for intervention. This is both in relation to complete market failure, in the case of missing markets, and of partial market failure, for example, in the case of achieving an acceptable level of air quality in our towns and cities.

1 3   Explain why street lighting is unlikely to be provided in a free market.

[15 marks]

1 4   Discuss the use of tradeable pollution permits as an effective measure to correct the market failure associated with poor air quality created by industrial production in the UK.

[25 marks]

END OF QUESTIONS

There are no questions printed on this page.

Mark Schemes & Example Model Answers

PAPER 1

Below is the levels of response marking grid to be used when marking the 25 mark questions.

Level of response	Response	Max 25 marks
5	**Sound, focused analysis and well-supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes good application of relevant economic principles to the given context and, where appropriate, good use of data to support the response • includes well-focused analysis with a clear, logical chains of reasoning • includes supported evaluation throughout the response and in a final conclusion.	**21-25 marks**
4	**Sound, focused analysis and some supported evaluation that:** • is well organised, showing sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes some good application of relevant economic principles to the given context and, where appropriate, some good use of data to support the response • includes some well-focused analysis with clear, logical chains of reasoning • includes some reasonable, supported evaluation.	**16-20 marks**
3	**Some reasonable analysis but generally unsupported evaluation that:** • focuses on issues that are relevant to the question, showing satisfactory knowledge and understanding of relevant economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles to the given context and, where appropriate, some use of data to support the response • includes some reasonable analysis but which might not be adequately developed or becomes confused in places • includes fairly superficial evaluation; there is likely to be some attempt to make relevant judgements but these aren't well-supported by arguments and/or data.	**11-15 marks**
2	**A fairly weak response with some understanding that:** • includes some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • includes some limited application of relevant economic principles to the given context and/or data to the question • includes some limited analysis but it may lack focus and/or become confused • includes some evaluation which is weak and unsupported.	**6-10 marks**
1	**A very weak response that:** • includes little relevant knowledge and understanding of economic terminology, concepts and principles • includes application to the given context which is, at best, very weak • includes attempted analysis which is weak and unsupported.	**1-5 marks**

(Source: AQA Specimen Assessment Material 2014)

Section A

Context 1   **Total for this Context: 40 marks**

01	*Using the data in **Extract A**, calculate, to **two** decimal places, the average pay increase awarded to the voluntary sector as a percentage of the average pay increase awarded across the whole economy.*
	[2 marks]

Calculation:

The voluntary sector has an average pay increase of 1.75% and the whole economy has an average pay increase of 2.0%.

Therefore, the pay increase awarded to the voluntary sector as a percentage of the average pay increase awarded across the whole economy:

1.75 / 2.0 x 100 = 87.50%

Response	Marks
For the correct answer with the % sign to two decimal places	**2 marks**
For a correct answer but without the % sign **and / or** not to two decimal places	**1 mark**

MAXIMUM FOR QUESTION 01: 2 MARKS

02	*Explain how the data in **Extract A** shows that public sector workers have been disadvantaged in terms of their average pay settlement.*
	[4 marks]

Response:	Marks
• includes evidence that shows that public sector workers have been disadvantaged in terms of their average pay settlement • clearly explains how this data is evidence of public sector workers being disadvantaged in terms of their average pay settlement	**4 marks**
• includes evidence that shows that public sector workers have been disadvantaged in terms of their average pay settlement • unclear explanation of how this data is evidence of public sector workers being disadvantaged in terms of their average pay settlement	**3 marks**
• includes evidence that shows that public sector workers have been disadvantaged in terms of their average pay settlement • limited explanation of how this data is evidence of public sector workers being disadvantaged in terms of their average pay settlement	**2 marks**
• includes evidence that does not clearly show that public sector workers have been disadvantaged in terms of their average pay settlement • no explanation of how this data is evidence of public sector workers being disadvantaged in terms of their average pay settlement	**1 mark**

Example model answer:

The public sector is the part of the economy concerned with providing various governmental services (eg armed forces, police, public health, education and transport services, as well as elected government officials such as MPs). (Kn) Extract A provides evidence to suggest that public sector workers have been disadvantaged in terms of their average pay settlement because, in the year to January 2016, the average pay of public sector workers increased by a lower percentage than the increase in the average pay of the voluntary sector workers, private sector workers and the economy as a whole, (An) as follows: public sector pay only increased by 1.1%, compared to 1.75% for the voluntary sector (Ap) and 2% for the private sector (Ap) and 2% for the economy as a whole. (Ap)

Public sector workers would appear to be at a particular disadvantage to private sector workers, whose average percentage increase in pay in the year to January 2016 was almost double that of the public sector. (Ap, An)

MAXIMUM FOR QUESTION 02: 4 MARKS

|		
03	***Extract B*** *(lines 3-4) states that 'the higher-rate rate threshold will rise again to £50,000 by the end of the 2020 parliament'.* *With the help of a diagram, explain how the increase in the higher-rate income tax threshold could affect the supply of labour.* **[9 marks]**	

Level of response	An answer that:	Max 9 marks
3	- is well organised and develops one or more of the key issues that are relevant to the question - shows sound knowledge and understanding of relevant economic terminology, concepts and principles - includes good application of relevant economic principles and/or good use of data to support the response - includes well-focused analysis with a clear, logical chain of reasoning - includes a relevant diagram that will, at the top of this level, be accurate and used appropriately.	**7-9 Marks**
2	- includes one or more issues that are relevant to the question - shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present - includes reasonable application of relevant economic principles and/or data to the question - includes some reasonable analysis but it might not be adequately developed and may be confused in places - may include a relevant diagram.	**4-6 Marks**
1	- is very brief and / or lacks coherence - shows some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely - demonstrates very limited ability to apply relevant economic principles and/or data to the question - may include some very limited analysis but the analysis lacks focus and/or becomes confused - may include a relevant diagram but the diagram is not used and/or is inaccurate in some respects.	**1-3 Marks**

(Source: AQA Specimen Assessment Material 2014)

Example model answer:

A higher-rate income tax threshold refers to the income level at which a person moves to a higher rate of income taxation. (Kn) The supply of labour refers to the total hours that workers are willing to work in an industry at a given real wage rate. (Kn)

An increase in the higher-rate income tax threshold would increase disposable income for all higher rate income tax payers. (Ap) This would lead to a reduction in the opportunity cost of leisure time, which will explain the increase in labour supply with an increase in disposable income. (Ap, An) This can be illustrated in the diagram below. (Kn, Ap)
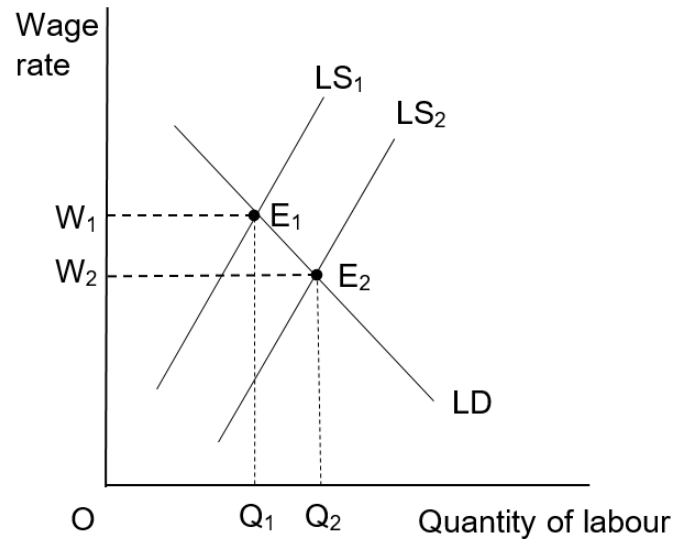
In this labour market diagram there is an initial equilibrium at E_1. (Ap) An increase in the higher-rate income tax threshold would lead to an increase in the supply of labour represented by the shift in the labour supply curve from LS_1 to LS_2. (Ap, An) A new equilibrium will be established at E_2 with an increase in the quantity of labour supplied. (An) There will also be a reduction in the equilibrium wage rate in the market from W_1 to W_2. (An)

MAXIMUM FOR QUESTION 03: 9 MARKS

> *04*   ***Extract C*** *(lines 16 -18) states that 'the government should focus on the financing of the retraining of anyone who becomes unemployed, so that business communities can adapt to changes in the economy'.*
>
> *Using the data in the extracts and your economic knowledge, evaluate the view that government intervention can reduce labour market failure caused by the occupational immobility of labour.*
>
> ***[25 marks]***

Use the levels of response marking grid presented earlier for this 25 mark question.

Example model answer:

Just like the product markets, labour markets can also suffer from market failure. (Kn) One source of labour market failure is the existence of the occupational immobility of the labour force. (Kn) Occupational immobility of labour occurs when it proves difficult for a worker with a particular skill to move easily to another occupation requiring another skill. (Kn) In an attempt to correct labour market failure, governments can intervene with policies to increase occupational flexibility. (Kn)

The occupational immobility of labour can lead to market failure in the form of unemployed resources, or resources being utilised in ways that are inefficient. This occurs when workers become redundant in one setting and remain unemployed because they find it difficult to find employment in a different industry, or even gain redeployment within the same industry. (Kn, Ap)

In the UK, there are government training initiatives in place to assist unemployed workers to become more occupationally mobile. (Ap) These can be targeted at particularly vulnerable groups, such as unemployed young people, or those over the age of 55, for example. (Ap) The training itself focuses on developing skills in occupational sectors where there are known worker shortages and therefore vacancies. (Ap)

To reduce the labour market failure caused by the occupational immobility of labour the government is investing in generic training schemes to develop the human capital of those currently unemployed, especially older workers. (Ap) Such intervention is effective because they equip the worker with new transferable skills relevant for a transition to a wider range of occupations. (An) These skills are particularly useful in the context of rapidly changing technology, or in response to the desire to diversify from the service sector - as is the case in the UK. (Ap) This is because, in a dynamic marketplace, wider skills will also assist in the future when the worker again transfers their labour from one occupation to another. (An)

The second strand of government intervention is through coordinating vocational training. (Ap) This training can increase the employability of workers by raising their skill levels in specific vocational areas where there are unfilled, long-term vacancies. (An) This is particularly effective as there are known to be employers who are particularly anxious to take on newly, retrained individuals. (An)

The importance of supporting the intervention with the provision of financial assistance to the unemployed workers who take on full-time training should not be underestimated. (Ap) A training loan or grant will enable an unemployed person to train, or an employee to take the time to retrain away from their current low-paid employment. (Kn) This will reduce their occupational immobility, and lead to an improvement in their prospects of sustainable employment and a higher income. (Ap, An)

Flexibility in the availability of the style of intervention is also important. (Ap) The internet may be useful here in enabling large numbers of trainees to access courses and increase their occupational mobility at times that are suitable to them. (An)

Information and guidance with respect to the training courses and vacancies that are available is an important aspect of the government's intervention to reduce labour market failure caused by the occupational immobility of labour. (Ap) In the short term, this could potentially reduce the mismatch between unemployed workers and vacancies. (An) Over the longer term, effective information and guidance will assist those requiring training to get the appropriate skills and subsequently get back into employment. (An) In short, market failure is reduced because potential employees can respond far more readily and successfully to the changing needs of employers. (An)

The extent to which the view that government intervention can reduce labour market failure caused by the occupational immobility of labour is valid, depends on a number of factors…

The likely impact of the intervention will be greatest if the initiatives chosen are well-designed in addressing focused labour market inflexibility. (Ev) They will also remain effective if they are carefully evaluated on a regular basis to ensure they meet their objectives and remain fit for purpose. (Ev) With regard to this, the training programmes aimed at developing generic skills must ensure that, in a dynamic economy, the skills that are developed keep pace with the ever-changing requirements of the labour market; otherwise intervention becomes increasingly ineffective. (Ev)

Vocational training that is coordinated by the government will be most effective when undertaken 'on the job' and delivered by the employers who are best placed, not only to identify the particular skills needed, but also to deliver them and offer new employment opportunities. (Ev) This is because the skills taught will be the most relevant, and the trainee will have little difficulty accessing the opportunities at the end of a successful training course. (Ev) Such vocational training is also likely to be more widespread, sustainable and credible, and therefore more cost-effective than if it were just coordinated and subsidised by the government. (Ev)

The government's financial support offered to those suffering occupational immobility during their training will be most effective if it is available as a grant rather than a loan. (Ev) This is because the incentive to undertake the training will be greater in the first place and, furthermore, because the opportunity cost is reduced. (Ev) Moreover, the prospect of starting a new occupation without the debt associated with a loan will encourage more widespread and sustainable training experiences, resulting in a more effective intervention by the government. (Ev)

The impact of the government intervention with respect to information failure will be greater if the information provided is up-to-date and relevant. (Ev) This is especially important when assisting the newly trained workers to find a vacancy once the training is complete. (Ev)

The information will also be more effective if it is tailor-made to the individual concerned and their own specific personal skills, talents and occupational situation. (Ev) If the guidance contains information that is accurate but not directly relevant to individuals, then the intervention will have less impact and may even undermine the individual's commitment to the overall process. (Ev)

MAXIMUM FOR QUESTION 04: 25 MARKS

Section A

Context 2   **Total for this Context: 40 marks**

05	*If the UK bank's total market value by current account was £8.5 billion in 2014, using the data in **Extract D**, calculate the actual value of HSBC's current account in 2014.*

[2 marks]

Calculation:

The UK bank's total market value by current account was £8.5 billion and HSBC's current accounts were worth 12% of the total.

Therefore, the actual value of HSBC's current accounts is:

£8,500,000,000 x 0.12 = £1,020,000,000 or £1.02bn

Response	Marks
For the correct answer (accept either 1,020,000,000 or 1.02bn) with the £ sign	**2 marks**
For a correct answer but without the £ sign	**1 mark**

MAXIMUM FOR QUESTION 05: 2 MARKS

06	*Explain how the data in **Extract D** shows the UK bank market to be an oligopoly.*
	[4 marks]

Response:	**Marks**
• includes evidence that shows that the concentration ratio is greater than 50% • clearly explains how this data is evidence of the market being a monopoly	**4 marks**
• includes evidence that shows that the concentration ratio is greater than 50% • unclear explanation of how this data is evidence of the market being a monopoly	**3 marks**
• includes evidence that shows that the concentration ratio is greater than 50% • limited explanation of how this data is evidence of the market being a monopoly	**2 marks**
• includes evidence that does not clearly show that the concentration ratio is greater than 50% • no explanation of how this data is evidence of the market being a monopoly	**1 mark**

Example model answer:

An oligopoly is a market structure with a few dominant firms, but where each must take account of their rivals' likely behaviour. (Kn) A market is classed as an oligopoly when the concentration ratio is in excess of 50%. (Kn)

From Extract D we can calculate that the UK bank market has a 5-firm concentration ratio of 88%; (Ap) a 4-firm concentration ratio of 78%; (Ap) and a 3-firm concentration ratio of 66%. (Ap) The UK bank market can, therefore, be classed as an oligopoly because the concentration ratio is in excess of the 50%. (An)

**MAXIMUM FOR QUESTION 06: 4 MARKS**

Level of response	An answer that:	Max 9 marks
3	• is well organised and develops one or more of the key issues that are relevant to the question • shows sound knowledge and understanding of relevant economic terminology, concepts and principles • includes good application of relevant economic principles and/or good use of data to support the response • includes well-focused analysis with a clear, logical chain of reasoning • includes a relevant diagram that will, at the top of this level, be accurate and used appropriately.	**7-9 Marks**
2	• includes one or more issues that are relevant to the question • shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles and/or data to the question • includes some reasonable analysis but it might not be adequately developed and may be confused in places • may include a relevant diagram.	**4-6 Marks**
1	• is very brief and / or lacks coherence • shows some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • demonstrates very limited ability to apply relevant economic principles and/or data to the question • may include some very limited analysis but the analysis lacks focus and/or becomes confused • may include a relevant diagram but the diagram is not used and/or is inaccurate in some respects.	**1-3 Marks**

07   ***Extract E*** *(lines 10-11) states that 'British sugar has significant economies of scale, the existence of which it claims helps small sugar beet farmers to make a profit'.*

With the help of a diagram, explain how the economies of scale of British Sugar help small sugar beet farmers to make a profit.

[9 marks]

(Source: AQA Specimen Assessment Material 2014)

Example model answer:

Economies of scale refer to the notion of decreasing long-run average costs of production as the scale of output increases. (Kn) The profits of a firm, such as those made by small sugar beet farmers, will be determined by the value of their total revenue minus the value of their total costs (fixed and variable). (Kn) One variable cost incurred by small sugar beet farmers is the payment to British Sugar for the processing of their sugar beet crop. (Ap)

The long-run average costs of British Sugar will be reflected in the price that they charge small sugar beet farmers to process their sugar beet crop each year. (Ap) As can be evidenced from the diagram below, (Kn, Ap) as the scale of British Sugar's operation increases from '0' to output levels 'A' and up to 'B', the average costs of processing the sugar beet of the small farmers will decrease. (An)
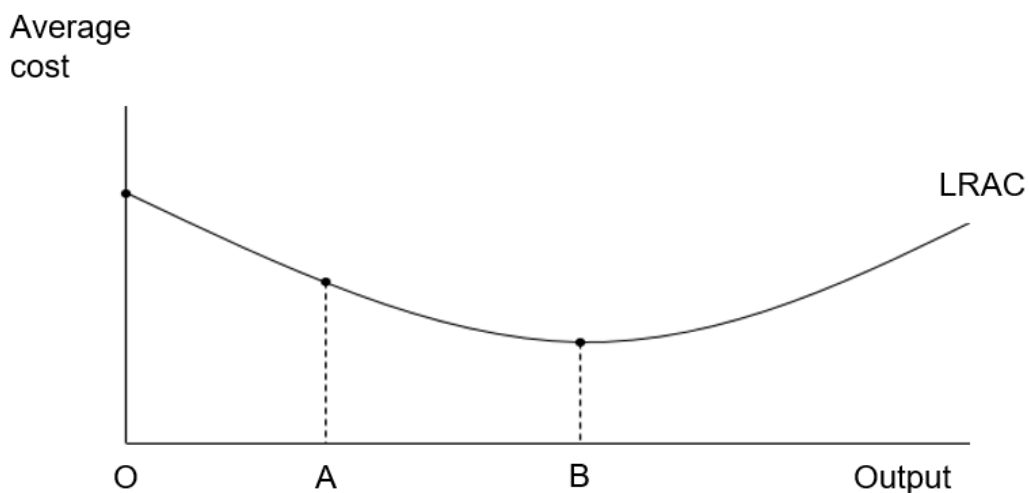
The more small sugar beet farmers use the processing services of British Sugar, the more this will help British Sugar to achieve lower long-run average costs of production, up to their minimum efficient scale (MES) at output level B. (Ap, An)

The falling long-run average cost of British Sugar could theoretically be passed on to the small sugar beet farmers representing a (variable) cost saving, (Ap) thus reducing the small sugar beet farmer's total costs, which would lead to them making a (larger) profit. (An)

MAXIMUM FOR QUESTION 07: 9 MARKS

08	***Extract F*** *(lines 9–10) states that 'Abnormal profits and low barriers to entry in the taxicab market have led to Uber expanding its UK operations'.*
	Using the data in the extracts and your economic knowledge, evaluate the likely impact of new firms, attracted by abnormal profits, entering a monopolistically competitive market in the long run.
	[25 marks]

Use the levels of response marking grid presented earlier for this 25 mark question.

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the candidate's response to the question.

Example model answer:

The market structure, monopolistic competition, is an example of imperfect competition. (Kn). It involves firms competing with differentiated products aiming to maximise their profits. (Kn) However, there are no effective barriers to entry (Kn) and, therefore, supernormal profits are only possible in the short-run. (Kn)

The market for taxi cabs and private hire vehicles in a local area reflects the characteristics of a monopolistically competitive market; there are many firms in the market, all with some degree of autonomy over the price they charge. (Ap) This is because they offer differentiated services by using cars of various standards and which can deliver different degrees of service level. (Ap) There are very few significant barriers to entry in this market, as Uber has demonstrated. (Ap) This can be seen through the growth of Uber in the taxi cab and private hire vehicle market in London, where the number of Uber drivers has grown to over 25,000, exceeding the number of black cab drivers. (Ap)

In the short-run, profit-maximising is possible in a monopolistically competitive market. Hence, in the taxi cab market in the UK in the short-run, supernormal profits were being earned by incumbent firms. (Ap) This initial situation is demonstrated in the diagram below. (Kn, Ap)
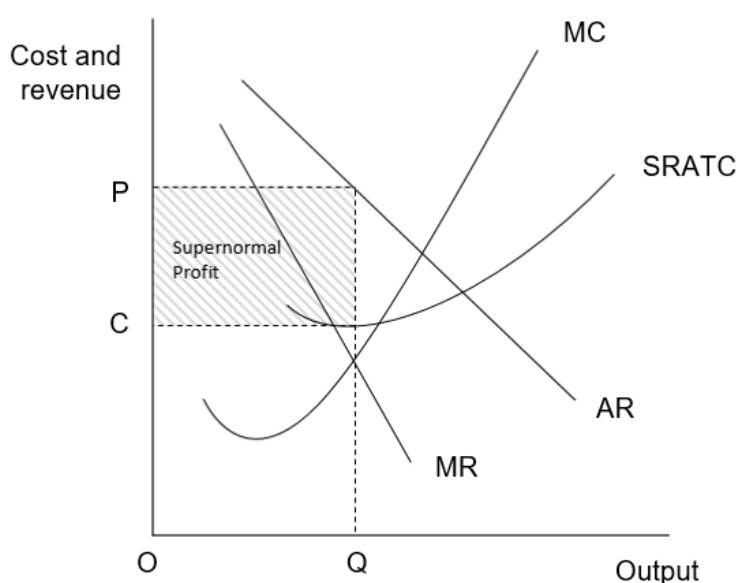
The output is at the profit-maximising level of Q, where MC = MR, and therefore a price (AR) of P will be charged. (An) This price is above the average cost (AC), which is at C, which leads to supernormal profit. (An)

The shaded area represents the total supernormal profit made by a firm in monopolistically competitive markets in the short-run. (Ap) This supernormal profit will attract new firms, such as Uber, into the market. (An) With no effective barriers to entry, firms such as Uber are easily and quickly able to establish and operate in this market. (An)

The impact of new market entrants, like Uber, is to reduce the demand for the services of existing black cabs. (An) This will lead to their demand curve shifting to the left. (An) This is demonstrated in the diagram below. (Kn, Ap)
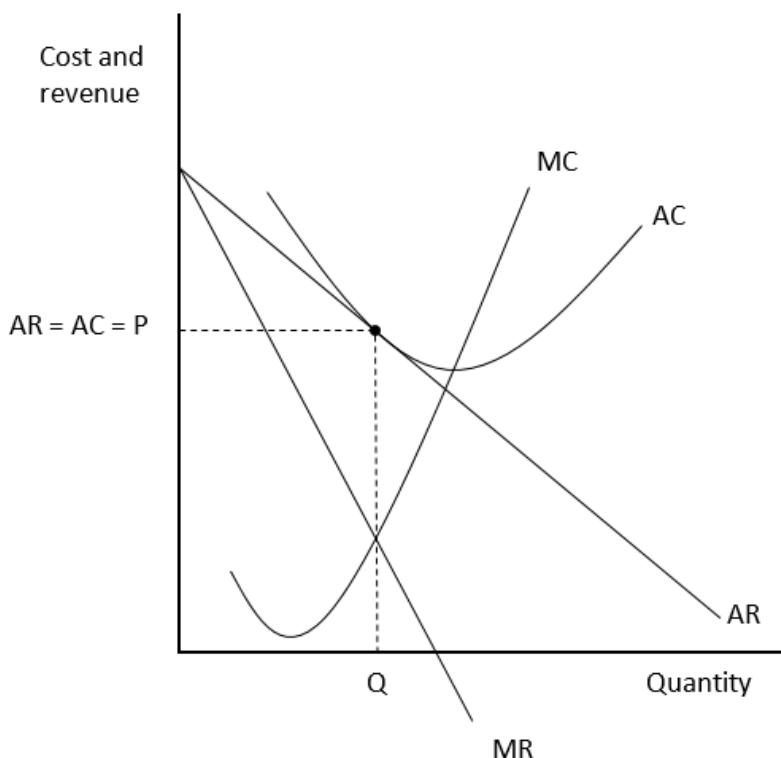
The process will continue while supernormal profits are still being made, until the falling AR and therefore price (P) is equal to AC. (An) This means that, in the long run, only normal profits are made, as is the case in other monopolistically competitive markets. (An)

The extent to which short-run supernormal profits are competed away by new market entrants and reduce towards normal profit, the minimum which all market participants are prepared to accept, depends on a number of factors...

Firstly, with regard to the impact of low barriers to entry, in reality, there may be a point at which, despite these barriers being low, the established supernormal profits are also too low to induce the new firms to take the risk of entering the new market. Hence, in such a case, the long-run situation may not lead to exclusively normal profit. (Ev)

If one of the incumbent firms is able to create a differentiation in their product or service that is appreciated by consumers, and that allows them to maintain their price and demand in the face of competition, they may not experience the fall from supernormal profit, even in the long run. (Ev)

The elasticity of demand for the service of the existing taxi firms may not be sufficiently high for the new-entrant firms, such as Uber, to be able to reduce their market share. In this scenario, their level of demand and ability to make a supernormal profit will not disappear even in the long run. (Ev)

The new entrant firms necessarily rely on effective advertising in order to differentiate their product and create initial demand for their offer. (An) If this advertising fails, or is less effective than required, this will cause their demand to be less than the level required for them to effectively enter the market in a sustainable way. (Ev) This could provide long-run supernormal profits for the incumbents in this market. (Ev)

In the long run, the taxi-cab market could be expanding and this could lead to a situation where, despite the new firms like Uber taking a significant share of the market, it may not cause the incumbent firm's demand curve to shift (significantly) to the left. (Ev) In this case, the AR of the established firms may not fall to the level of their AC, and supernormal profits may still exist, even in the long run, for all participants. (Ev)

Finally, in the real world, it is possible that incumbent firms may adopt a more aggressive pricing policy, such as predatory pricing over the short term, in order to temporarily deter the new entrants, such as Uber, from entering their market. If this is the case, then supernormal profits may still exist, even in the long run. (Ev) However, such a strategy would require a degree of collusion, which is not characteristic of monopolistic competition. With so many participants, collusion would be impractical. (Ev)

MAXIMUM FOR QUESTION 08: 25 MARKS

SECTION B

Below is the levels of response marking grid to be used when marking the 15 mark questions.

Level of response	Response	Max 15 marks
3	**A good response provides an answer that:** • is well organised and develops a selection of the key issues that are relevant to the question • shows sound knowledge and understanding of economic terminology, concepts and principles with few, if any, errors • includes good application of relevant economic principles to the given context and, where appropriate, good use of data to support the response • includes well-focused analysis with clear, logical chains of reasoning.	**11-15 marks**
2	**A reasonable response provides an answer that:** • focuses on issues that are relevant to the question • shows satisfactory knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles to the given context and, where appropriate, some use of data to support the response • includes some reasonable analysis but which might not be adequately developed or becomes confused in places.	**6-10 marks**
1	**A weak response provides an answer that:** • has identified one or more relevant issue(s) • has some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • has very limited application of relevant economic principles to the given context and/or data to the question • might have some limited analysis but it may lack focus and/or become confused.	**1-5 marks**

(Source: AQA Specimen Assessment Material 2014)

Set (Essay) 1

Total for this Set of 2 questions (Essay): 40 marks

09	*Using examples to illustrate your answer, explain why opportunity cost should be considered when assessing the benefits of an activity such as vaping as an alternative to traditional tobacco-smoking.*
	[15 marks]

Use the levels of response marking grid presented earlier for this 15 mark question.

Example model answer:

The government will think carefully about the benefits of any intervention it is considering, in order to determine how to re-allocate its scarce resources most effectively. (Kn) The issue of opportunity cost is concerned with the benefit foregone of the next best alternative when a resource is used in a particular way. (Kn) Opportunity cost can also be seen in terms of savings made when resources are reallocated. (Kn) These considerations are important for the government in determining the real value of any benefits that can be derived from a particular allocation of resources. (Kn)

With respect to assessing the benefits of e-cigarettes and vaping, there are opportunity cost considerations that the government should weigh up. (Ap) These are associated with vaping being at least 95% safer than traditional tobacco-smoking. (Ap)

The opportunity costs which can be exploited, if consumers choose vaping in place of traditional tobacco-smoking, are associated with fewer subsidised prescriptions, fewer treatments on the NHS and reduced spending on other preventative gums, patches and psychiatry. (Ap) Similarly, such a switch releases benefits from reduced second-hand smoking. (Ap)

The reduced health-service needs of those engaged in vaping, rather than traditional tobacco smoking, will mean fewer resources are used in their treatment. (An)

It is important to accurately value the opportunity cost saving of the reduction in health resource usage because those resources will be valuable and productive in their alternative use. (An)

Taking careful account of these opportunity cost savings will lead to a more accurate valuation of the true benefits that accrue from vaping and e-cigarettes. (An)

If an accurate judgement is made when assessing the benefits of vaping, this will lead to a more efficient allocation of resources than might otherwise be the case. (An)

If the opportunity cost is ignored, and only the benefits accruing to those directly engaged in the activity are considered, then the true value of the benefit will be under-estimated. (An) This will lead to market failure (An) resulting in a sub-optimal allocation of resources and a social welfare loss in the economy. (An)

MAXIMUM FOR QUESTION 09: 15 MARKS

> *10*　　*The Government would like to improve the health and labour productivity of the UK population by encouraging people to stop smoking. Using your knowledge of **both** conventional economic theory **and** behavioural economics, assess alternative policies that the Government might adopt to try to achieve this objective.*
>
> *[25 marks]*

**Use the levels of response marking grid presented earlier for this 25 mark question.**

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the candidate's response to the question.

Example model answer:

Labour productivity refers to a measure of the output per worker in an economy over a period of time. (Kn) Labour productivity will be affected by the choices that employees might make and which may also damage their health. (Kn) Conventional economic theory assumes the rationality of decision makers, (Kn) whereas behavioural economics accepts the notion that consumer choice is sometimes based on irrationality and asymmetric information. (Kn) The government will, therefore, need to select carefully a range of policies if they wish to be successful in reducing the number of people who smoke in the population. (Kn)

Smoking is an example of a demerit good. (Kn) A demerit good has the characteristic of being worse for the consumer than the consumer realises. (Kn) The (chronic) adverse health effects of smoking make it a demerit good. (Ap) As a result of an individual smoking, there is negative impact on, amongst other things, their ability to work efficiently - by reducing their productivity as a result of poor health. (Ap, An) This reduction in productivity has an impact on third parties in the economy and is, therefore, one of the negative externalities associated with smoking. (An)

In a free market there will be over-consumption of cigarettes, which will lead to a misallocation of resources and market failure. (An) This can be illustrated in the diagram below. (Kn, Ap)
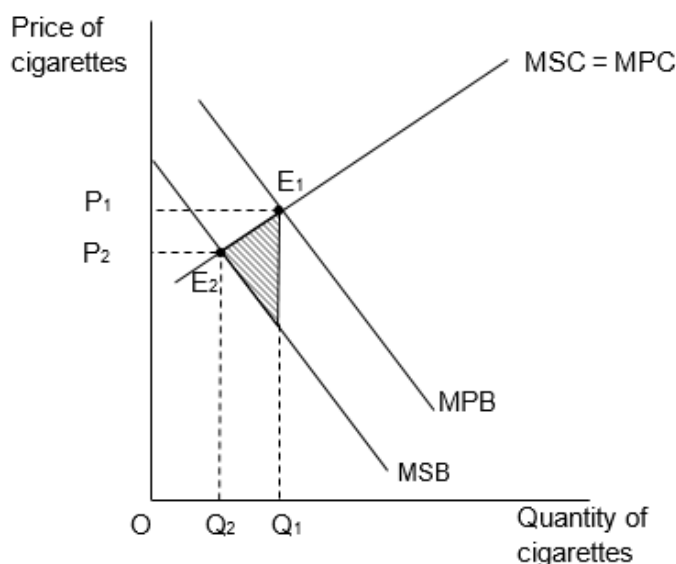
The free market equilibrium is at E_1. (Ap) However, due to the negative externalities associated with smoking, the socially optimal equilibrium, where $MSC = MSB$, is at E_2, and there is a deadweight loss to society equal to the shaded area in the diagram. (An)

Government policy, aimed at reducing smoking in the economy, will focus on a reduction in the deadweight loss and an increase in productivity. (An)

Based on conventional economic theory, the government is, therefore, likely to impose a tax in the market. (Ap) This is because a higher tax on cigarettes means the external cost is passed on to the producers and consumers, in part or in full, thereby either reducing the deadweight loss, or eliminating it entirely - if equilibrium at E_2 is achieved. (An) In such a case, this would lead to the government completely internalising the negative externality. (An)

Such conventional economic theory relies on the rationality of the consumer and, in the case of smoking cigarettes, consumers will not necessarily act rationally. (Ap) Habit-forming goods like cigarettes may lead consumers to make irrational decisions regarding their consumption choices. (An)

Behavioural economics presents a range of policy options to the government that can supplement the conventional approach. (Kn) The irrationality of consumers in relation to the purchase of cigarettes can be addressed by adopting policies incorporating nudges and choice architecture. (Ap) The behavioural theory of nudges suggests consumer behaviour can be influenced by policies incorporating suggestions and positive reinforcements. (Kn) Such policies that the government could adopt include prominently displaying serious health warnings on cigarette packaging to make consumers think more seriously about reducing their consumption of cigarettes. (Ap) Also, positive reinforcement through promoting examples of people who have benefited from quitting smoking can lead to smokers assimilating the behaviour of reduced cigarette consumption prompted by the desire for the positive outcome. (Ap) Such policies can, therefore, be effective in reducing the number of people who smoke, and so improve labour productivity. (An)

The behavioural theory of choice architecture suggests consumer behaviour can be influenced by the way cigarettes are presented in a retail environment. (Kn) Hence, one recent policy that has been adopted has involved legislation to hide cigarettes from view in retail outlets. (Ap) This means a potential cigarette consumer is required to make an extra request and effort to buy the good. (Ap) Changing the way cigarettes are presented to consumers, in this sense, is a powerful deterrent in the purchase process and, therefore, can be effective in reducing the number of people who smoke, and so improve labour productivity. (An)

In assessing the conventional economic and behavioural policies associated with achieving the government's objective of reduced smoking and increased labour productivity, a number of issues must be taken into account…

If consumers are 'predictably irrational', then government policies that do not account for this behaviour are likely to be less effective. (Ev) This would be the case, for example, if the government relied solely on increased taxation to solve the market failure associated with cigarette consumption. (Ap) The greater the extent of predictable consumer irrationality, the less effective would be the taxation policy. (Ev) Moreover, the more likely an unintended consequence - for example - increased malnutrition, could be the outcome (as a lack of disposable income could lead to poor choice over diet). (Ev)

The effectiveness of the taxation policy will also depend specifically on the price elasticity of demand (PED) for cigarettes. (Ev) Cigarettes are likely to have a very low price elasticity of demand. (Ap) This will cause the effectiveness of the taxation policy to be less than if the demand for cigarettes were more responsive (higher PED) to the increase in price. (Ev)

The effectiveness of the government employing a policy incorporating nudges will be greater when it encourages a reduction in smoking but remains transparent. (Ev) This means it will be most effective when there are no hidden costs associated with the behaviour choice. (Ev)

Allowing the consumer to actually retain sovereignty over the final choice is also important in making the nudge effective. (Ev) For example, the more compelling the evidence against smoking that can be provided to support a nudge, the more likely it is to be effective in achieving its objective. (Ev)

Similarly, the effectiveness of the government employing choice architecture will be reduced if consumers resent the government's influence and herding activity (ie the attempt to get consumers to move 'as one' in a certain way). (Ev) If this is felt strongly, it may lead to consumers reverting to their preferred consumption pattern of cigarettes, despite all of the other policy initiatives. (Ev)

Finally, the greater the extent of the predictable consumer irrationality, the less effective the taxation policy, and the more likely an unintended consequence will be the outcome. (Ev) This will be worse if increased taxation leads to no reduction in smoking and, therefore, no increase in labour productivity. (An, Ev) Instead, it may result in less of the consumer's disposable income being spent on other items, such as nutritious food. This could lead to a situation where the original cause of poor health and low productivity remains, and is actually enhanced by an unintended consequence. (An, Ev)

MAXIMUM FOR QUESTION 10: 25 MARKS

Set (Essay) 2

Total for this Set of 2 questions (Essay): 40 marks

11	*Explain how barriers to entry can determine the degree of competition in a market.*
	[15 marks]

Use the levels of response marking grid presented earlier for this 15 mark question.

Example model answer:

A barrier to entry is an obstacle that can prevent new competitors from easily entering and contesting a market. (Kn) The barriers can range from natural or structural barriers (Kn) to those that are deliberately constructed by incumbent firms. (Kn) The lower the barriers to entry in an industry, the more contestable the market will be, the greater the degree of competition, and therefore the lower the prices and the better the products. (Kn, An)

The most common barriers to entry include high sunk costs; these are costs that are irretrievable and arise because of the specific nature of the business itself. (Kn,) This is classed as a structural barrier to entry. (Kn)

A natural monopoly occurs, again because of the nature of the business, when the most efficient number of firms in the industry is one. (Kn) A natural monopoly will often have very high fixed costs that act as a barrier to entry. (Kn) This means that it is impractical in terms of cost and efficiency to have more than one firm operating in the industry. (Ap) Hence, high barriers to entry determine that there will be no effective, natural competition in the market. (An)

Legally imposed barriers that allow a firm to operate with limited competition, or even illegal anti-competitive practices employed by incumbent firms, are examples of deliberate barriers to entry. (Ap) All of these barriers will effectively reduce the degree of competition in the market. (Ap) Competition itself can have a number of meanings. Most commonly it can be determined by the number of firms in an industry. (Kn) Alternatively, it can be seen as the ease with which that number can increase or decrease. (Kn) Both these features will mean that, in a competitive market, consumers are more likely to benefit from the consequences of greater productive and allocative efficiency. (An)

Sunk costs include, amongst others, advertising costs and the recruitment and training costs associated with a firm's workforce. (Kn) These sunk costs, once incurred, cannot be recovered. (Kn) If these costs are particularly high, for example in established and specialised markets, such as aircraft manufacturing, then they can act as a significant deterrent to new entrants who would weigh up the significant risks associated with entering and competing in the market. In this way, competition in the market is reduced. (Ap, An)

The nature of the business itself can cause barriers to entry to exist. (Kn) If there is the potential for significant economies of scale which incumbents are already exploiting, then this will mean new potential entrants will be deterred from entering and contesting the market. (An) This is because, with initially low production volumes, and therefore higher average costs and price, they will not be able to compete with existing cost structures and, therefore, price in the industry. (An) These economies of scale can arise from the firm's ability, for example, to bulk buy raw materials and components so that average costs can be kept low. (An) They can also arise from the managerial expertise and resulting cost-efficiency that exists with experienced corporate leaders in well-established firms. (An)

Legally-imposed barriers to entry include patents, the need to secure a state-owned franchise to operate regional train companies, or legislation that allows firms to operate in a specific sector subject to obtaining a licence to participate; for example, 4G licenses for mobile phone operators. (Ap) These barriers make it virtually impossible for new entrants to compete in a marketplace because it would be illegal for them to do so. (Ap) In this sense, they are extremely effective in restricting the degree of competition in a market. (An)

Incumbents may also practice illegal anti-competitive activities that create barriers which deter potential market entrants (Ap); these activities may include predatory and limit pricing. (Kn) Predatory pricing, for example, involves an incumbent firm deliberately setting a temporary, low price to try to deter potential competitors, or force incumbent rivals out of the market. (Kn) Such a pricing policy can represent significant barriers to entry and, thus, limit competition. (An)

Finally, contracts between specific suppliers and retailers can act as a barrier to other retailers from entering the market. (Ap) This will limit the quality or range of products available to customers, undermining the service which should be provided and, more relevant to the question, serves to reduce the degree of competition in the market. (An)

MAXIMUM FOR QUESTION 11: 15 MARKS

12	*Discuss the view that profit maximisation will always be the objective of a firm.*
	[25 marks]

Use the levels of response marking grid presented earlier for this 25 mark question.

Example model answer:

Profit maximisation is a key objective of most private sector firms. (Kn) Profit itself is a factor reward for risk-taking (Kn) and the maximisation of that profit can provide financial security for a firm. (Kn) However, there are other objectives that a firm may prioritise above profit maximisation. (Kn)

The maximisation of profit is the rational objective held by most (of the owners of) firms. (Kn, Ap) This involves producing at a level of output where the positive difference between the total revenue and the total cost is maximised. (Kn) This will occur where the marginal cost (MC) for the firm is equal to its marginal revenue (MR). (Kn) At this level of output, shareholders (or owners) will receive the maximum potential reward for their risk-bearing behaviour and so it is likely to be a key objective. (Ap) Profit maximisation is also the objective that provides the greatest opportunity for long-term growth and survival of a firm. (Ap) However, from time to time, there are situations where alternative objectives may be more important to the owners or managers of a firm. (Ap) These objectives include the maximisation of revenue, or the maximisation of sales, or satisficing instead of profit maximisation. (Ap)

The objectives of a firm will be influenced by who owns and is in control of the business, because these are the effective decision-makers and priority-setters. (Ap) The rational owner will want the firm to maximise profits in order to maximise the return on his or her investment. This will also enable maximisation of their potential dividends and the value of the firm. (An)

Firms, especially larger ones, are often complex and dynamic entities and this means that profit maximisation may not always be the primary objective. (Ap) Within such firms, independent managers may drive the objectives of the firm in a different direction from profit maximisation, in order to meet their personal objectives, which could involve pursuing an objective of revenue maximisation. (An) This is where MR has fallen to 0 rather than where MR = MC. (Kn) The policy of revenue maximisation may be a clever way of maximising longer-term profit. This is because meeting this objective ensures the firm becomes cash rich (as long as costs do not rise disproportionately), and can afford to invest in future efficiencies and / or new market opportunities, which could maximise profit in the longer-term. (An) Such an objective may also be associated with the aim of increasing market share, and thereby increasing the firm's influence on the market, giving it greater control over price. (An)

Alternatively, an objective of sales or output maximisation can be pursued. (Kn) This will occur where average revenue = average cost. (Kn) The policy of sales maximisation may also be a clever way of maximising longer-term profit, and can also ensure a large market share and brand loyalty. (Ap) This is because, from this position, a large supermarket, for example, which has more opportunities to exploit economies of scale can sell goods more cheaply. (An) This means smaller rivals will find it difficult to survive, giving the supermarkets even more market share and profit in the longer term. (An)

A consideration made by some firms in decisions regarding objectives, concerns their attitude to social welfare. This will lead to them operating in a particular way which will allow them to contribute to the well-being of their employees, customers and suppliers, and therefore society, rather than maximising their own private profits. (Ap, An)

In a similar fashion, a firm may strive to minimise external costs, rather than maximising their own private profits, because they may feel it is right to impose the minimum possible negative impact on society as a result of their business activity. (Kn, Ap) This may involve them reducing their output level if a significant negative externality can be reduced. (An)

Finally, at certain times, a firm may find it has financial difficulties; for example, due to cash-flow problems. (Kn) At these times the objective of the firm may be to produce at a level of output that minimises costs rather than maximise profits. (Ap) This is in order to be able to remain operational whilst meeting their current business expenses and securing some financial support. (An)

The extent to which the objective of profit maximisation is the main objective of a firm depends on a number of factors…

It may be paramount from the owners / shareholders point of view, but it is not always feasible. (Ev) With regard to this, there is the issue of imperfect information; that is to say the ability of a firm to know the value of its marginal cost and marginal revenue at various output levels, in order to achieve profit maximisation. (Ev) This is especially true in multi-product firms or conglomerates where, within one organisation, there are a number of overlapping cost and revenue structures. (Ev) In this situation, it may be almost impossible to identify what would be the profit maximising prices and output levels - for each product or subsidiary, as well as for the whole enterprise. (Ev)

At times of greater threat from the entry of new firms into a market, existing firms are more likely to stray from an objective of profit maximisation. (Ev) This is because they are likely to adopt a more aggressive sales maximisation objective in order to protect their market share. (Ev)

If the managers of the firm have the opportunity to reduce prices, they may do this at times when they wish to increase revenue, where demand is price-elastic. (Ap) This may be to allow them to achieve a target level of revenue to access a bonus payment for example. (An) In such circumstances, the incentive of the bonus payment will move the firm away from the objective of profit maximisation. (Ev)

The degree of competition in the market in question can also determine the objectives of the firm. (Ev) For example, a firm operating in a particularly competitive market will find it necessary to operate only at the profit maximising level of output in order to survive. (Ev) This is not true of firms operating in less competitive markets where decision-makers are free to pursue the notion of an alternative objective. (Ev)

Firms operating in the private sector are more likely to be structured with owners who drive the objective of profit maximisation. (Ev) However, firms in the public sector, with a degree of financial support from public money are more likely to give greater prominence to external costs and benefits, and social welfare considerations within their corporate objectives. They are, therefore, less likely to be focused on an objective of pure profit maximisation. (Ev) As a result, this may incur unnecessary costs but will achieve greener and more ethical goals. (Ev)

In the real world, it may well be that competing objectives are not mutually exclusive. (Ap) Therefore, experienced managers may attempt to meet the objective of 'profit satisficing'. (Ap) Satisficing means achieving objectives that are acceptable to all of the stakeholders in a business. (Kn) This approach will be successful if firms are in an imperfectly competitive market, which is protected by barriers to entry and each group can be convinced that its interests are sufficiently served. (Ev) The objective is to achieve satisfactory profits, rather than maximum profit, which are combined with other objectives. (Ap) In such imperfectly competitive markets, in the short run it is more likely that a firm will have objectives that are not compatible with profit maximisation. (Ev)This is even more likely if the firm has access to internal or external financial support. (Ev) In the long run, it is more important that a firm has the objective of profit maximisation. (Ev) This is especially true if the firm is in a competitive market where the pursuit of any alternative long-run objective would mean the firm could not survive. (Ev)

MAXIMUM FOR QUESTION 12: 25 MARKS

Set (Essay) 3

Total for this Set of 2 questions (Essay): 40 marks

13	*Explain why street lighting is unlikely to be provided in a free market.*
	[15 marks]

Use the levels of response marking grid presented earlier for this 15 mark question.

Example model answer:

Goods are provided in a free market by firms who are motivated by the profits generated from supplying the goods demanded by consumers. (Kn) This exchange will only take place if there is effective demand from the consumer, meaning an ability and willingness to pay. (Kn, Ap) There is a class of goods, known as public goods, where these market interactions do not take place and the market fails in their provision. (Kn)

Street lighting is often provided by the local authority and paid for through community taxation. (Kn) This is because street lighting can be classed as a public good and is unlikely to be provided by the free market. (Ap) This is because a private sector firm would be unable to provide street lighting and make a profit. (Ap)

A public good has the characteristics of non-rivalry (Kn) and non-excludability in consumption. (Kn) A public good also has the associated 'free rider' problem. (Kn, Ap) It is for these reasons that the free market is unlikely to provide street lighting. (An)

Unlike private goods, consumption of a public good, such as street lighting, is non-rival. (Kn) This means that consumption by one individual does not restrict consumption by others. (Kn*).* In the case of street lighting, once the lighting is paid for by one consumer, others can still consume the same lighting. (Ap) The impact of this is that no rational consumer would then be willing to pay to provide the street lighting, and therefore the market is unlikely to provide it. (An)

Consumption of street lighting is also non-excludable. (Kn) This is because the benefits of street lighting cannot be restricted to just those who paid for the lighting. (Ap) This particular feature leads to the 'free-rider' problem; each potential consumer of street lighting would wait for the 'market' to provide the street lighting and then get a 'free ride' on the benefits of the provision paid for by others. (Ap, An)

The impact of these characteristics is that the free market would fail to provide street lighting. (An)

In reality, there are examples of individuals - whose behaviour is deemed to be irrational in behavioural economic theory - who may choose to pay to provide street lighting. (Ap) This can be for reasons of altruism or safety, notwithstanding the non-rival and non-excludable characteristics of the provision. (An)

MAXIMUM FOR QUESTION 13: 15 MARKS

14	*Discuss the use of tradeable pollution permits as an effective measure to correct the market failure associated with poor air quality created by industrial production in the UK.*
	[25 marks]

Use the levels of response marking grid presented earlier for this 25 mark question.

The use of relevant diagrams to support the analysis should be taken into account when assessing the quality of the candidate's response to the question.

Example model answer:

The existence of negative externalities leads to market failure. (Kn) Such failure results in an inefficient allocation of resources and a welfare loss to society. (Kn) Air pollution caused by industrial production is an example of such an externality that leads to market failure. (Ap) One possible solution explored by concerned governments is the granting of a fixed number of tradable pollution permits, issued and sold to potentially offending firms. (Kn, Ap) There is some debate concerning the extent to which such permits offer an effective solution to an increasingly acute problem. (Kn)

The issue of industrial production leading to poor air quality is important, because the poor air quality has an acute detrimental effect on the health and wellbeing of those (third parties) living in the affected economies, particularly those in the immediate vicinity. (Ap) Air pollution can also add to global warming and longer term problems for the planet's ecosystems. (Ap)

When considering the firms that create the pollution through their production processes, it is possible to identify the external costs that cause the social costs to increase above the firm's private costs. (Ap) This allows economists to isolate the activities that generate the external costs and address them through permitting only an acceptable amount of the polluting activity, and thus determining the number and value of tradable permits available. (Ap, An)

In the diagram below, the free market equilibrium is at G with price P_2 and quantity Q_2. (Ap) This equilibrium takes account only of the marginal private costs (MPC) of production, which is effectively the supply curve. (Ap) As industrial activity that causes air pollution takes place, the external cost of production will increase. (An) These additional costs, added to the private costs are reflected in the marginal social cost (MSC) curve. (An)
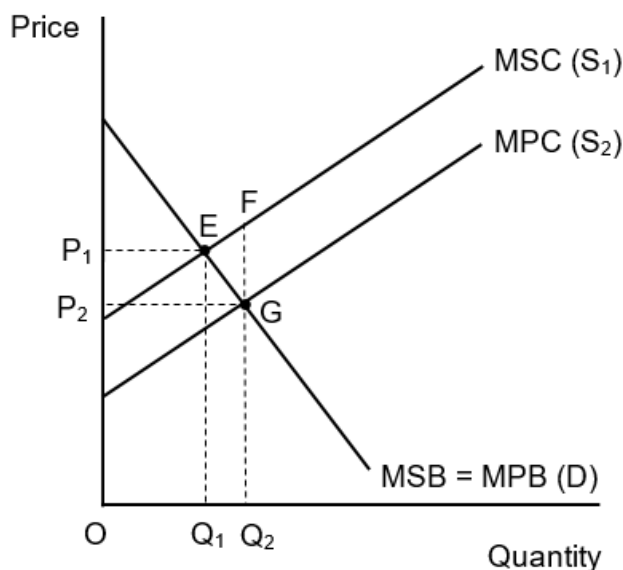
The equilibrium that takes full account of the social cost of industrial production would settle at E, with price P_1 and quantity Q_1. (An)

At E, the external cost of the industrial production is shown by the vertical difference between the MPC and MSC curves. (Ap) However, the free market equilibrium is at G and will not take account of the external costs of the poor air quality created. (An) The adverse economic impact is that an inefficient allocation of resources occurs and, therefore, market failure exists at G. (An)

In the free market, output is higher at Q_2, and the price lower at P_2, than the socially efficient outcome at E. (An) The free market therefore creates a welfare loss to society represented by the triangle EFG on the diagram. (An)

The tradable pollution permit solution operates by the government deciding on an optimal pollution level for its economy with respect to air quality (Kn). This then corresponds to the issuing and selling of a fixed number of tradable permits, which is represented by Q in the diagram below. (Kn, Ap) Specifically, the government will then issue and sell permits to firms within offending industries which then allows those who choose to buy them to create a total amount of pollution, say 100 units of carbon dioxide per year, in line with the total level set of Q. (An)

The limit of Q permits will eliminate the welfare loss in the diagram above and reduce the market failure associated with poor air quality created by industrial production (An) - as shown in the diagram below.
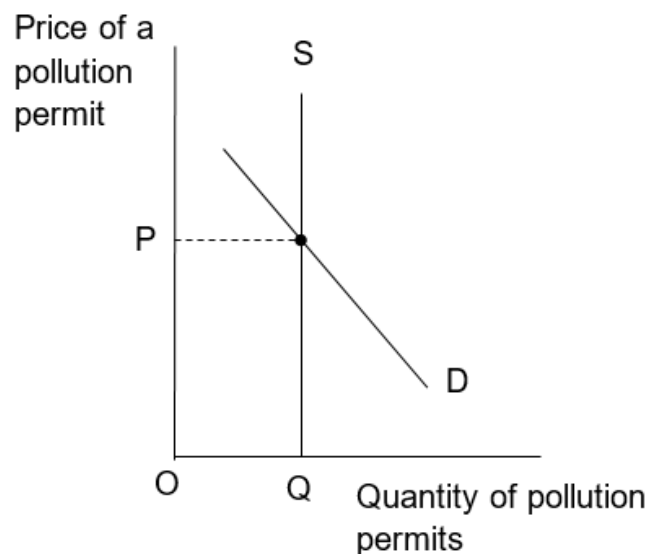
This tradable system means that if any firm creates less pollution than its agreed limit, it can sell its excess pollution permit allowance for money to another firm. (An) However, if it cannot avoid creating a greater amount of pollution than its limit, it must buy permits from other firms which have excess allowance on their permits. (An) There will, therefore, be a market for tradable pollution permits where market forces dictate that if firms generally pollute a lot, then the price will be high for permits, and therefore higher for their products. (An)

Within this solution, there is an economic incentive for firms to create less pollution, either by becoming more efficient in their production processes and / or by exploiting new ways of removing or neutralising any harmful effects. (An)

The extent to which tradeable pollution permits are an effective measure to correct the market failure associated with poor air quality created by industrial production in the UK, depends on a number of factors…

One particular issue concerns the difficulty in deciding the precise optimal level of pollution (Q) and the cost of the permits that firms in an industry will need to buy. (Ev) The UK government has been accused in the past of over-issuing permits and creating the possibility of polluting to a greater extent than the optimal level. (Ap) Such government failure would make the system ineffective in correcting the market failure. (Ev)

Even if the optimal level of air pollution can be identified, there are still practical difficulties in measuring and monitoring the pollution levels of firms within an industry. (Ev) Moreover, there are significant costs of administering such systems which must be set against any benefits gained. (Ev)

Since pollution can cross international borders, any system also requires a degree of international coordination if the problems of transnational ecosystems and global warming are to be effectively challenged and the market failures addressed. (Ev)

For the solution to be effective there must also be widespread information provision (Ev) and an internationally agreed system of sanctions. (Ev) These must offer a significant enough incentive for all firms concerned to abide by the pollution limits, defined by the permits that they have bought. (Ev) Failure on this front will simply lead to a geographic relocation of offending firms away from areas such as the UK, to the economies with poorly enforced restrictions. (Ev) As such, the market failure would persist on a global stage; it would simply be relocated. (Ev)

Theoretically, tradable pollution permits are an effective market-based solution to the problem of market failure associated with air pollution. (Ev) However, there are considerable technical, practical and financial difficulties that could render this particular solution especially difficult to administer and monitor, in terms of its overall effectiveness at reducing air pollution to levels in line with social equilibrium. (Ev)

MAXIMUM FOR QUESTION 14: 25 MARKS

Assessment Objective Grid

PAPER 1

Question	AO1	AO2	AO3	AO4	TOTAL
Section A					
Context 1					
1	1	1			**2**
2	1	2	1		**4**
3	2	4	3		**9**
4	4	4	7	10	**25**
Context 2					
5	1	1			**2**
6	1	2	1		**4**
7	2	4	3		**9**
8	4	4	7	10	**25**
Section B					
9	4	4	7		**15**
10	4	4	7	10	**25**
11	4	4	7		**15**
12	4	4	7	10	**25**
13	4	4	7		**15**
14	4	4	7	10	**25**
Section A	**8**	**11**	**11**	**10**	**40**
Section B	**8**	**8**	**14**	**10**	**40**
Paper Total	**16**	**19**	**25**	**20**	**80**