

OCR A-LEVEL ECONOMICS • H460

ECONOMICS



EXAM QUESTION PACK

MARKET STRUCTURES

SCORE

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- Evaluate whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product.

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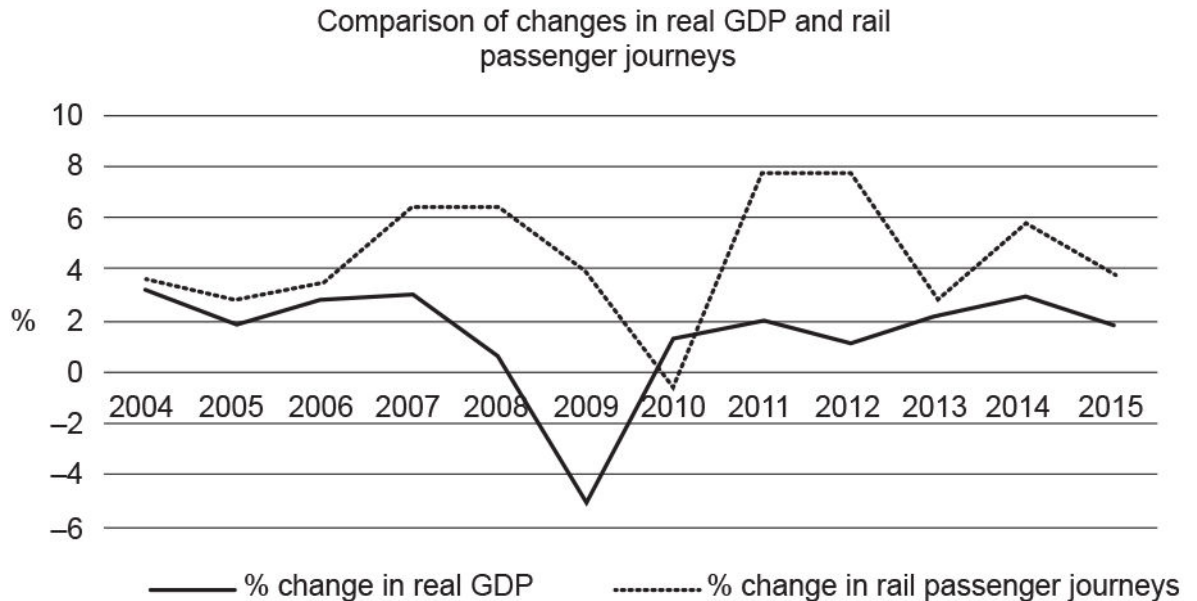
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[25]

Rail travel is becoming more popular. Fig. 1 shows the change in real GDP and the change in rail passenger journeys between 2004 and 2015.

Fig. 1 – Economic growth rate and percentage change in rail passenger journeys, 2004–2015



The railway network has a high level of fixed costs and is, therefore, often used as an example of a natural monopoly. In economic theory a natural monopoly often leads to a market which is best controlled by one firm. For many years, railway services in the UK were provided by British Rail (BR). BR was a nationalised company owned and run by the government and it had a monopoly on the provision of passenger rail services.

After 1993 there were radical changes made to the railway system in an attempt to introduce a more contestable market. The expensive infrastructure of the railway tracks and stations is now owned and maintained by Network Rail, a state owned 'not for dividend' company with no shareholders, which reinvests its income in the railways. Passenger services are provided by private sector train operating companies (TOCs), such as Great Western Railway, Stagecoach and Virgin. These companies are allowed to bid for the right to run a train service on a particular route. This right is in the form of a franchise that the TOC would have to pay for. The franchise lasts for a fixed time period. When franchises come up for renewal there is a bidding process, and this can result in a new TOC providing the service. To ensure that the firm operating the franchise maintains standards, a regulatory body called the Office of Rail and Road was established to oversee their activities. This body monitors compliance with health and safety legislation as well as industry targets for the rail passenger service. Targets include punctuality, availability of seating and frequency of train services. Fig. 2. shows a selection of regional rail franchises with both current and previous operators.

Fig. 2 – Selected regional rail franchises and TOCs. April 2016

Train operator (TOC)	Regional franchise	Start date of franchise	Finish date of franchise	Previous operator (TOC)
Abellio	Greater Anglia	Feb. 2012	Oct. 2018	National Express E. Anglia
Arriva UK	Wales and Borders	Dec. 2003	Oct. 2018	Wales and Borders
Stagecoach	East Midlands	Nov. 2007	Mar. 2018	Central Trains and Midland Mainline
Arriva UK	Chiltern Railways	July 1996	Dec. 2021	Network South East
Govia	West Midlands	Nov. 2007	Oct. 2017	Central Trains

The East Coast Railway Line

In 2015 an eight-year franchise for passenger train services on the East Coast mainline between London and Edinburgh was awarded to a joint venture between Stagecoach and Virgin. For the five years previous to this the provider was Directly Operated Railways, a public sector firm.

25 Under the management of the joint venture between Stagecoach and Virgin, the franchise began with the 7.55 am service leaving Newcastle for London King's Cross.

More services have been promised for the line over the next few years, bringing a 50% increase in capacity and faster journeys to London. Stagecoach and Virgin have pledged to invest about £140m in order to deliver an improved service and a more personalised travel experience for customers. Stagecoach and Virgin are scheduled to pay £3.3bn to the government for the franchise.

30

The East Coast line has had several providers of passenger train services. Two private operators failed to meet their financial commitments and their franchise was removed. As a result, a small public sector firm, Directly Operated Railways, stepped in to run trains on the mainline in late 2009.

35

In its five years Directly Operated Railways provided over £1bn in payment to the government, as well as several million pounds in profits, to the Treasury. Financial analysis from the Office of Rail and Road shows it was one of two railway firms to make a net contribution to government, paying in more than it received in subsidy or indirect grants, along with Southwest Trains (run by Stagecoach).

40

The different prices charged for a train journey from Newcastle to London on the East Coast Line are shown in Fig. 3.

Fig. 3 – Price of adult single ticket from Newcastle to London King’s Cross on Tuesday the 5th of April 2016

Departure time from Newcastle	Arrival time in London	Journey time	Price of adult single ticket
7.08 am	10.20 am	3 hours 12 minutes	£138.00
7.29 am	10.42 am	3 hours 13 minutes	£78.50
9.30 am	12.43 pm	3 hours 13 minutes	£51.00

Source: National Rail Enquiries

Identify and explain, using the stimulus material, one reason why the privatisation of the rail network has made it a more contestable market.

[2]

- [3]

(c)

(i) What evidence is there in the stimulus material of TOCs engaging in price discrimination?

-----[2]

(ii) Evaluate the extent to which the consumer benefits from price discrimination by a firm with monopoly power.

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[8]

3 * Perfect competition theory is based on a set of very unrealistic assumptions.

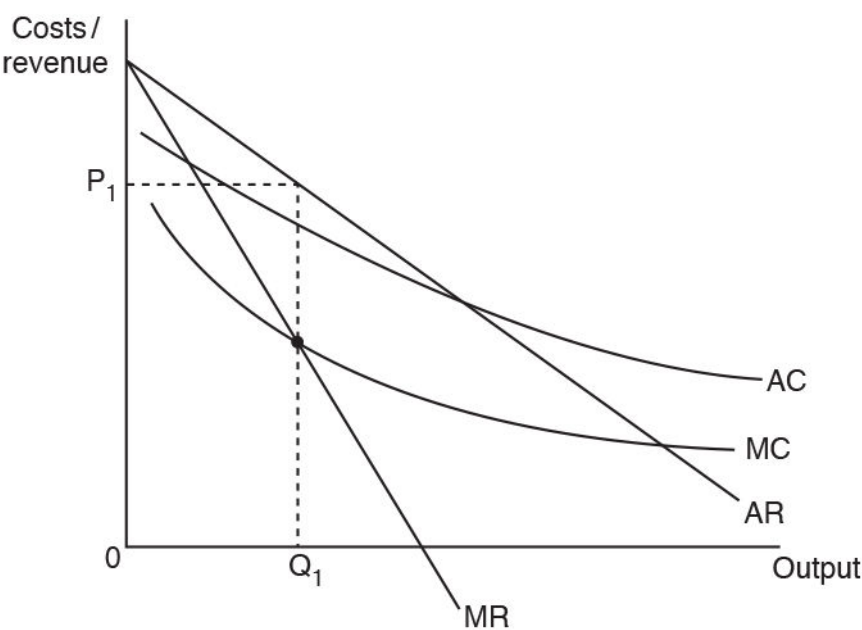
Evaluate the usefulness of perfect competition theory in explaining the behaviour of firms in the real world.

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4 Which of the following is represented in the diagram below?

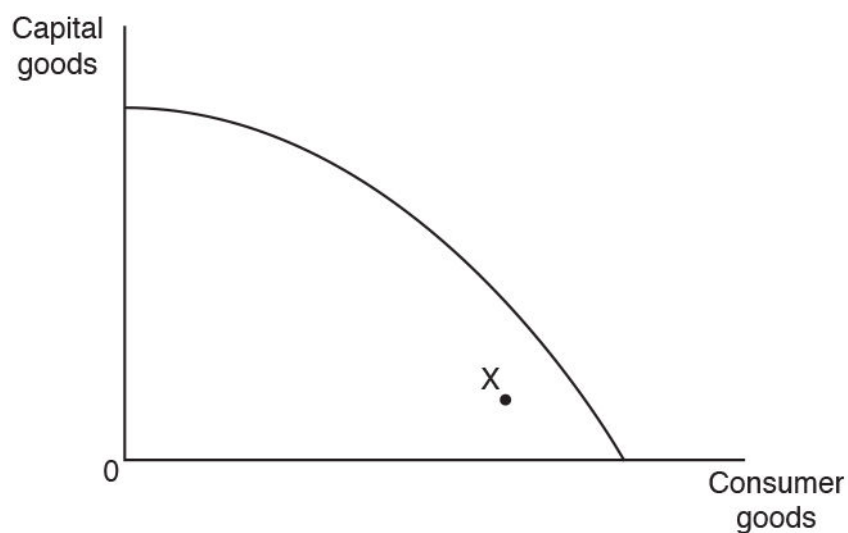


- A Contestable market
- B Monopolistic competition
- C Natural monopoly
- D Oligopoly

Your answer

[1]

5 In the diagram below, what does point X represent?



- A Allocative inefficiency
- B Opportunity cost
- C Productive inefficiency
- D Scarcity

Your answer

[1]

6 A firm could lower its average costs whilst keeping its output the same. What type of inefficiency is occurring?

- A Allocative inefficiency
- B Dynamic inefficiency
- C Productive inefficiency
- D X-inefficiency

Your answer

[1]

7 Which one of the following is a defining characteristic of a contestable market?

- A Collusion
- B Long run supernormal profits
- C Many small buyers and sellers
- D No barriers to entry or exit

Your answer

[1]

Please refer to insert **H460-03 June 2018, Olympic Games**, which can be downloaded separately and is also included with Question 31.

Evaluate, using an appropriate diagram, the extent to which consumer welfare is harmed as a result of the bicycle industry being an oligopoly.

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[15]

* One of the roles of the Competition and Markets authority is to prevent the abuse of monopoly power.

Evaluate, using an appropriate diagram(s), the potential impact of monopoly power within an industry.

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[25]

The UK labour market has experienced both a large increase and significant changes in the past 20 years. Data published in the UK's Labour Force Survey in October 2017 shows employment continuing to rise and unemployment falling, as seen in Fig. 1.

Fig. 1 – UK labour market statistics for June to August 2017

	Number ('000)	Change on previous quarter ('000)	Change on previous year ('000)
Employed	30923	109	363
Unemployed	1418	–63	–224
Economically Inactive (Aged 16–64)	8812	–17	–13

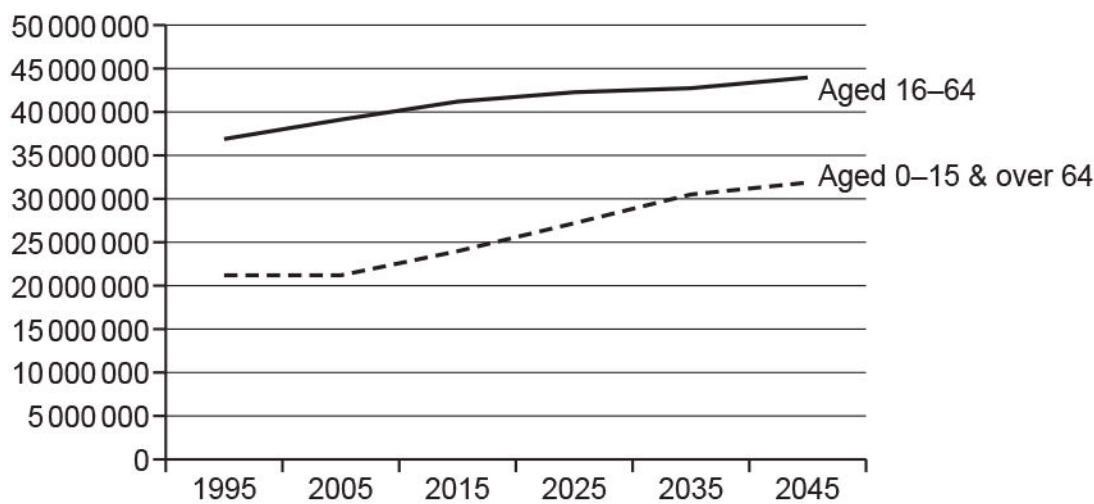
Source: ONS

The unemployment rate was at a 42-year low, although there was still some slack in the labour market. Other evidence in the October 2017 data included:

- average weekly earnings for employees increased by 2.2% in nominal terms, compared with a year earlier.
- average weekly earnings for employees decreased by 0.3% in real terms, compared with a year earlier.
- employment growth was strongest for those aged 25–34 years and 50–64 years.
- employment fell among young people aged 16–24 years.
- growth in employment over the year was greater for women (up by 246 000) than for men (up by 71 000).
- employment growth was not equal across the country, with the biggest increases in the West Midlands, London, Scotland and the South East but large falls in the South West, East Midlands and Wales.
- the proportion of workers in temporary jobs because a permanent one was not available was 27.6%.
- the proportion of people working part-time because they could not find a full-time job was 12.3%.

The UK economy has created nearly 6 million new jobs in the last 20 years which was necessary given the increase in the UK population over this period (see Fig. 2). Many of these extra jobs were primarily due to an increase in self-employment and employees in part-time work.

Fig. 2 – UK population estimates 1995–2045



Source: ONS

The 'gig economy'

Each day, just before lunch, couriers dressed in the distinctive green and black uniform of Deliveroo, the online food delivery company, arrive at the end of the street, park their bikes next to a bench and wait. Holding their smartphones, they wait for someone, somewhere in the city, to place an order with one of the nearby restaurants and cafés. When an order comes through, one of the couriers will pick it up and deliver it in exchange for a small fee. They will then return to the bench to wait for another call.

Welcome to the 'gig economy' which can be defined as, "a labour market characterised by the large number of short-term contracts or freelance work, as opposed to permanent jobs".

Plenty of people in early 21st-century Britain can identify with the experience of working for a company like Deliveroo. But even more people are employed on zero-hour contracts in a wide variety of jobs, from stacking shelves to waiting tables to caring for the elderly. According to the Office for National Statistics, around 900 000 workers rely on a job with a zero-hour contract. These people start every week not knowing how much work they will get or how much money they will earn. Informal or casual employment of this kind helps explain why the UK's unemployment rate has not grown out of control since the financial crash of 2008. This increased labour market flexibility has made it easier and less risky to employ workers, especially for monopolistically competitive firms who will expect to see a fall in their average costs.

However, opponents of the growth in casual employment, including the trade unions, claim that there are underlying problems associated with this labour model. Millions of people are "just about managing" and many are faring much worse. In the 12 months up to March 2017, the UK's largest food bank charity gave out more than one million emergency food parcels to people in desperate need. At the same time, household debt has grown to 150% of income. This debt has been fuelled by low wage growth and low interest rates which has made credit easily available. But the main issue for the estimated 8.3 million people living with unmanageable debt is needing to borrow money to survive.

It is no more than a coincidence that these concerns are happening in a year which recognises the 75th anniversary of the founding of the UK welfare state which was set up to focus on, among other issues, a problem that had grown since the early 1800s: that many workers struggled to earn regular and reliable wages throughout the entire year. However, some have come to regard the welfare state simply as a cost to be kept down rather than part of an economic and social strategy that aims to deliver security for all. Successive governments have cut benefits and altered the tax system to move the burden away from more progressive direct taxation towards more regressive indirect taxation.

Fig. 3 shows the effect on different groups of households by comparing their original income earned from employment with their final disposable income after benefits and taxation have been taken into account.

Fig. 3 – Average incomes, taxes and benefits of households by decile group, 2015/16

	Bottom	2nd	3rd	4th	5th	6th	7th	8th	9th	Top	All households
Original income	6 286	13 988	17 410	25 754	31 424	39 293	47 963	59 622	68 968	117 960	42 867
+ Total cash benefits	6 387	7 748	8 313	6 319	4 494	3 729	2 368	2 283	2 004	1 544	4 519
Gross income	12 673	21 736	25 723	32 074	35 918	43 022	50 331	61 905	70 972	119 504	47 386
– Direct taxes	1 528	2 299	3 046	4 794	5 940	7 931	10 091	13 199	15 534	29 991	9 435
Disposable income	11 145	19 437	22 677	27 280	29 978	35 091	40 239	48 706	55 438	89 513	37 951

Source: ONS

Please refer to insert H460-01 June 2019, which can be downloaded separately and is included above.

A firm in a monopolistically competitive market decides to introduce more casual employment practices, such as zero-hour contracts.

Explain, using a diagram, the effect of this decision on the firm's equilibrium position in the short run.

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- 11 * Netflix is the world's largest online video subscription service. By 2018, after only 10 years in existence, it had 137 million worldwide subscribers. 65% of online video viewers in the USA watch Netflix at least once a month.

Evaluate, using an appropriate diagram(s), the advantages and disadvantages of a perfectly contestable market.

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[25]

Grocery retailing is often used as an example of an oligopoly market in the UK. Economists sometimes divide oligopoly markets into two types: perfect oligopoly, in which the products sold are homogenous and imperfect oligopoly, in which there are differentiated products. The behaviour of firms in a perfect oligopoly can be significantly different from those in an imperfect oligopoly.

In the UK, since the 1950s, the selling of groceries has become increasingly dominated by supermarkets. Tesco has been the market leader for a sustained period of time with over 25% of the market share. There are, however, other competitors who also maintain a significant share of the grocery market, as shown in Fig. 1.

Supermarket	Percentage share of grocery market	Percentage share of grocery market
	July 2014	July 2016
Aldi	4.8	6.2
Asda	17	15.5
Co-op	6.3	6.4
Lidl	3.6	4.5
Morrison's	11	10.7
Sainsbury's	16.6	16.3
Tesco	28.9	28.3
Waitrose	4.9	5.1
Others	6.9	7.0

Fig. 1 Percentage share of grocery market by supermarket. July 2014 and July 2016.
(As measured by % of total market sales revenue.)

The market for groceries is large with the value of sales exceeding £170bn. This has continued to grow, see Fig. 2, despite the macroeconomic problems of the UK economy and a prolonged price war between the supermarkets.

	UK grocery market by value in £bn
2014	177.4
2016	179.1

Fig. 2 UK grocery market by value £bn. 2014 and 2016.

The larger supermarkets have used price cutting in an attempt to maintain market share. While another method of differentiating their brand has been to offer better home delivery services. At present online ordering accounts for less than 10% of all grocery sales.

Sainsbury's, one of the leading supermarkets, has recently decided to integrate its business by buying out Argos.

This constitutes horizontal integration. Argos specialises in selling non-grocery products such as toys, clothing and household goods. These non-grocery products are part of Sainsbury's wider product portfolio. Argos offers delivery by 10pm for any of its products ordered by 6pm on the same day. One of the potential benefits of this buy out of Argos by Sainsbury's is the delivery network that Argos has established. Sainsbury's hope to increase their ability to deliver food using online ordering. However, the delivery of items such as clothes and household goods creates fewer problems than delivering fresh food products. Food items require different temperatures and items are often fragile or bulky making the process more difficult and costly.

The major problem with online grocery sales is the lack of profitability. There is a very high level of fixed costs involved. It has been estimated that, on average, a delivery costs the supermarket £20 whereas consumers are charged less than £5. Ocado, an online groceries only provider, operated for 15 years before making a profit.

In recent years there have been some successful new entrants to the grocery retailing market such as Aldi, Lidl and Netto. Most recently, Amazon, a market leader in online sales, has also entered the grocery retailing market through a new service called Pantry. The entry of new firms into a market can influence the profits earned by the incumbent firms. Fig. 3 shows how the profits earned by Tesco and Sainsbury's have changed in recent years.

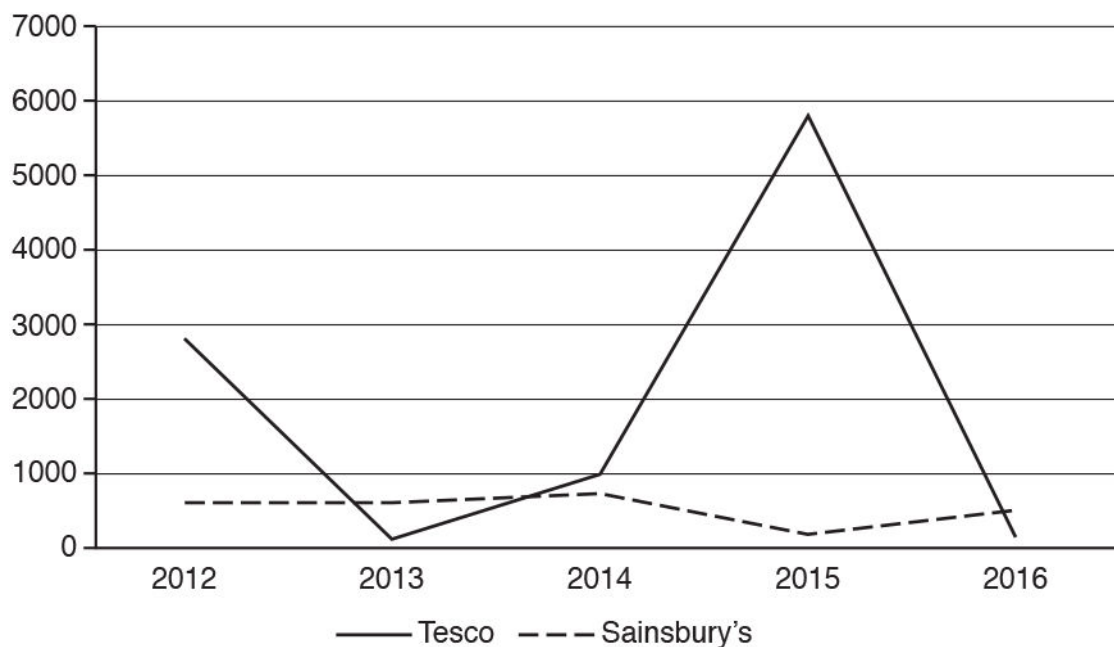


Fig. 3 Profits (£m) earned by Tesco and Sainsbury

Please refer to Insert H460-01 Practice 2, which can be downloaded separately and is also included above.

Compare the 3 firm concentration ratio for supermarkets in the grocery market in July 2014 and July 2016.

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(c) * Using evidence from the stimulus material, evaluate the extent to which the grocery market in the UK can be described as an oligopoly.

[12]

- Monopolistic competition, with its focus on a large number of producers, is a realistic model of market competition.

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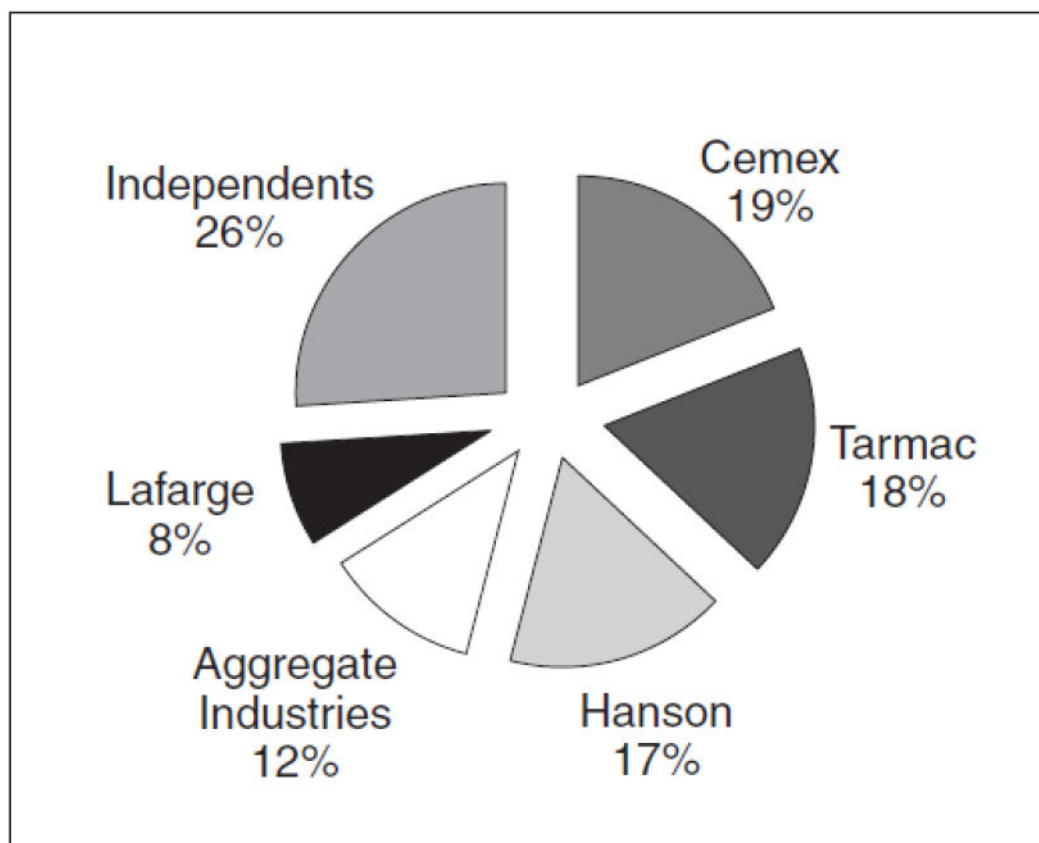
Cement is mainly used to make concrete and accounts for approximately 45% of its production cost. The most common type of concrete is ready-mix concrete. This is a mixture of cement, granular raw materials and water. In 2009 the sales of cement in the UK totalled £0.9bn and the sales of ready-mix concrete came to £1bn. In the same year the output of cement was 7.6m tonnes and the output of

5 ready-mix concrete was 14m tonnes.

Over the last 20 years, a high number of mergers have reduced the number of firms in both markets and combined firms producing both cement and ready-mix concrete. In 2009 the three largest firms in the cement market, Lafarge, Cemex and Hanson, produced 6m tonnes of concrete between them.

Large firms also play a key role in the market for ready-mix concrete. Fig. 1 shows the market shares of
10 the five largest ready-mix firms in 2009.

Fig. 1 – UK shares of ready-mix concrete volumes, 2009



The large firms, all of which are multinationals, concentrate on producing building materials. Each owns quarries which extract granular raw materials. Their factories involved with the production of concrete

sell some of their output internally to other parts of their business. Some is also sold to other firms, including small firms which just produce ready-mix concrete.

- 15 There is little difference in the quality of both the cement and ready-mix concrete produced by the different firms. In the markets for both cement and concrete the large firms have considerable information about the pricing and output strategies of their rivals. This information comes from, for example, buying and selling to each other and details provided in planning proposals.

In both the markets for cement and concrete, there are a number of significant barriers to entry and exit

- 20 which give incumbent firms protection from the potential entry of new firms. There are high set up costs with, for instance, a cement factory costing as much as £100m to build. In addition, there are thought to be significant economies of scale available to the larger operators.

In 2010 and 2011 the Office of Fair Trading (OFT) undertook a study of the cement and ready-mix concrete markets. There was concern about the lack of competition and possible co-ordination of

- 25 market strategies undertaken by the large firms. Small ready-mix concrete firms told the OFT that they were being charged high prices for cement by the large firms, while having to compete against the low prices the large firms were charging for their own ready-mix concrete. They suggested that the large firms were prepared to accept lower profit margins on ready-mix concrete knowing that they could still make a high level of supernormal profit producing cement. These smaller firms claimed that such a
30 strategy, which became particularly evident in 2009, was designed to drive them out of business. Figs 2 and 3 show how the average revenue and average cost changed in the markets for cement and concrete between 2006 and 2010.

Fig. 2 – Cement – average revenue and average cost per tonne

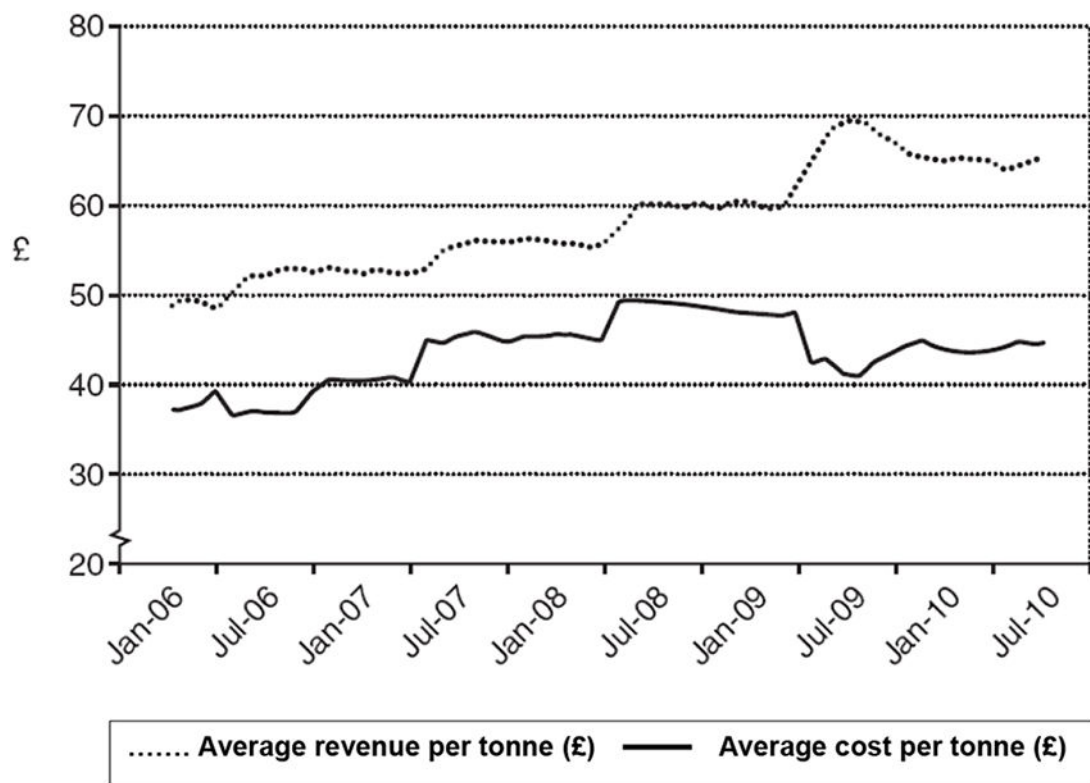
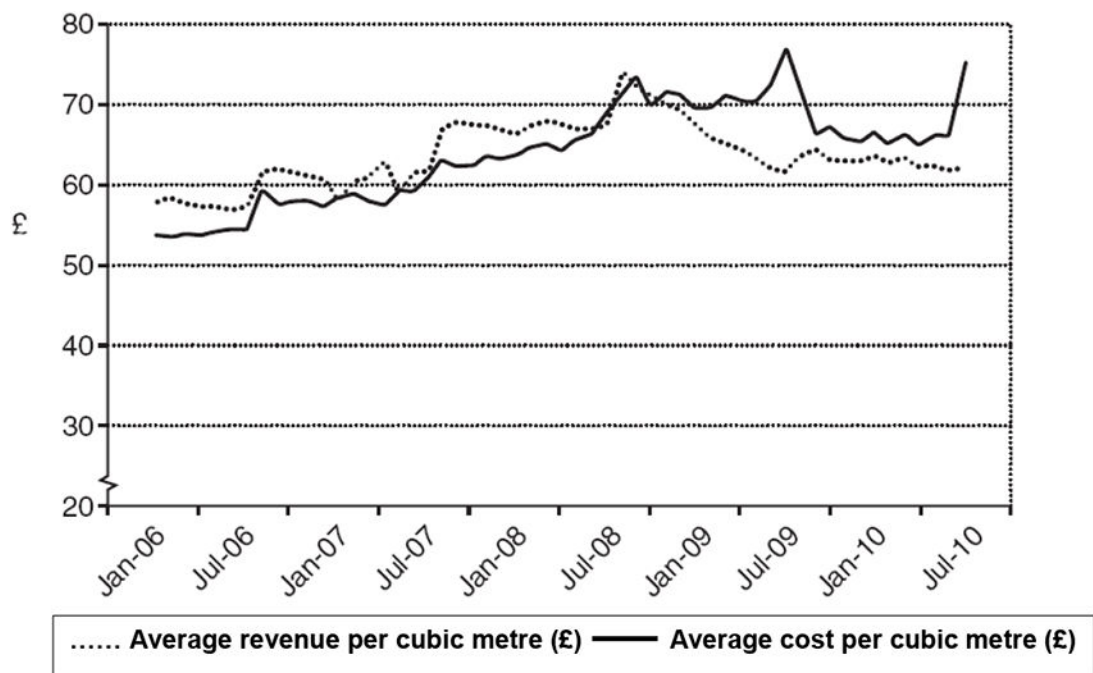


Fig. 3 – Ready-mix concrete – average revenue and average cost per cubic metre



In 2013 a merger took place between Lafarge and Tarmac but to gain permission from the regulatory authorities for this merger, the firms had to agree to sell off some of their quarries and factories to a new entrant, Hope Construction Materials. In early 2014 the Competition Commission ordered the newly

35

merged firm, Lafarge Tarmac, to sell off more factories to create another major entrant.

It is likely that future years will see further changes in the markets for cement and concrete – nothing is set in stone.

Please refer to insert H460-01 Specimen which can be downloaded separately and is included above.

Explain, using relevant calculations, whether the cement market was more concentrated or less concentrated than the ready-mix concrete market in 2009.

[4]

- (b) * Using evidence from the stimulus material, evaluate the extent to which collusion occurred in the UK cement market.

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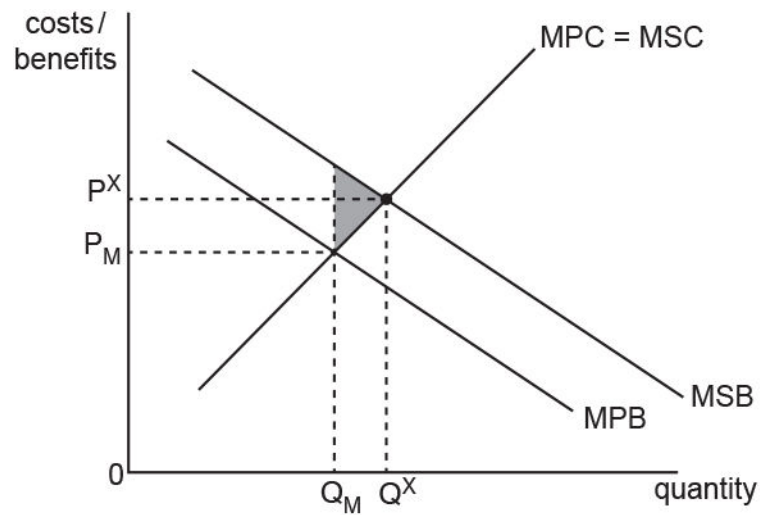
16 Which of the following identifies the concept of static efficiency?

Option	Allocatively Efficient	Dynamically Efficient	Productively Efficient	X-Efficient
A	✓	x	✓	x
B	✓	x	x	✓
C	✓	x	✓	✓
D	x	✓	✓	✓

Your answer

[1]

17 Which of the following options explains what is represented by the shaded area below?

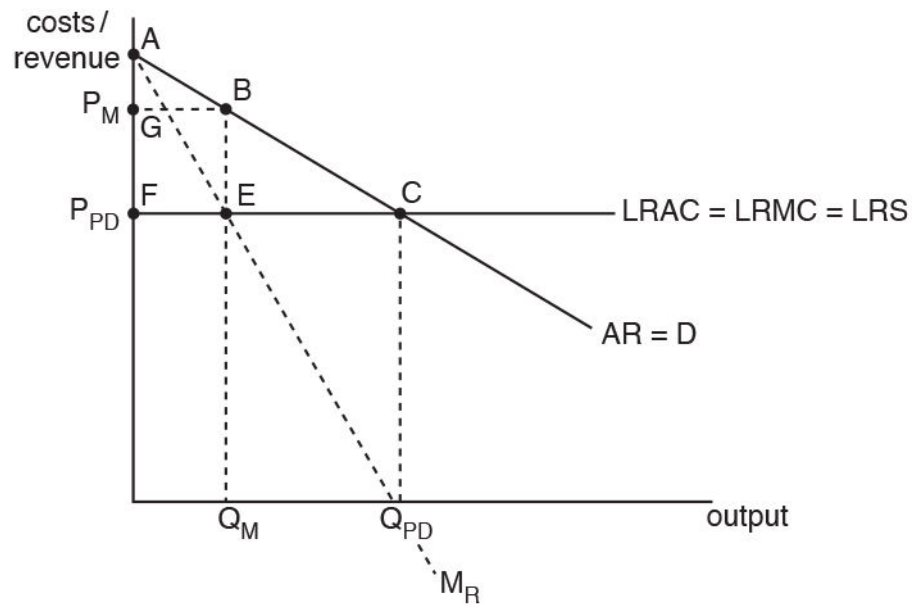


- A Allocative inefficiency
- B Dynamic inefficiency
- C Productive inefficiency
- D X-inefficiency

Your answer

[1]

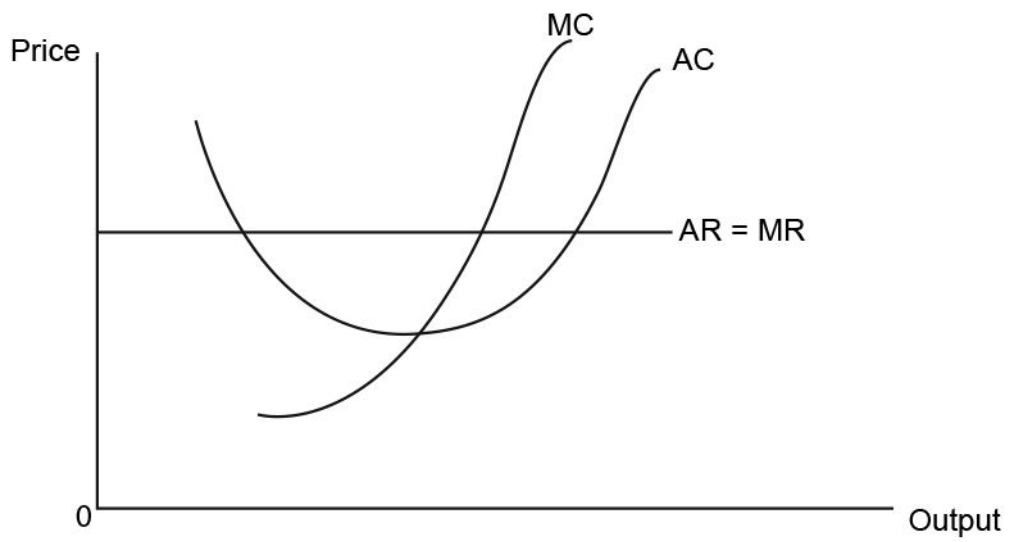
- 18 In the diagram below, Q_M represents the output of a monopolist which is not price discriminating. If the firm was able to engage in perfect (first degree) price discrimination it would produce an output of Q_{PD} . Which area represents the loss in consumer surplus that arises as a result of this change?



- A ABG
- B ACF
- C BCE
- D BEFG

Your answer

[1]



Which of the following options is represented by the diagram?

- A Monopolistic competition in the long run
- B Monopolistic competition in the short run
- C Perfect competition in the long run
- D Perfect competition in the short run

Your answer

☐

[1]

20 How do the characteristics of an oligopoly market differ from a monopoly market?

- A Firms are short run profit maximisers
- B Supernormal profits are possible in the long run
- C There are a few dominant firms
- D There are high barriers to entry and exit

Your answer

☐

[1]

21 When is a firm dynamically efficient?

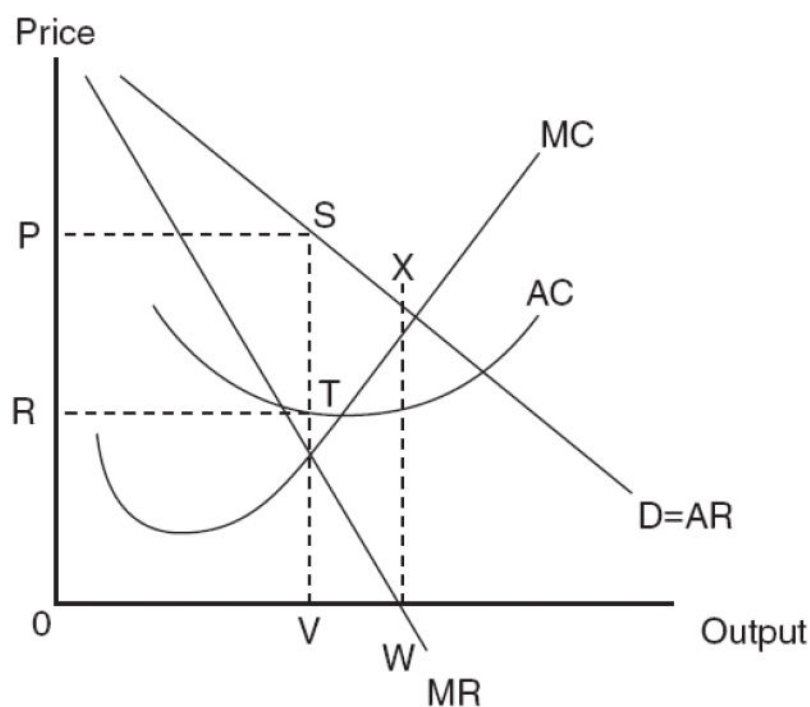
- A Investment in R&D is enabling long run average costs to be reduced in the future.
- B Price is equalling marginal cost.
- C Production is taking place at the minimum efficient scale.
- D Production is taking place on the lowest attainable average cost curve.

Your answer

☐

[1]

22 The diagram below represents a firm operating in monopolistic competition.



Which of the following statements is correct?

- A The firm achieves productive efficiency
- B The firm earns total revenue represented by the area RPST
- C The firm is operating on the elastic section of its demand curve
- D The firm's supernormal profit is represented by the area 0RTV

Your answer

☐

[1]

23 In which of the following cases are firms most likely to be productively and allocatively efficient?

- A Monopolistically competitive market in the long run with firms making normal profit
- B Natural monopoly
- C Perfectly competitive market in the short run with firms making supernormal profit
- D Perfectly contestable market

Your answer

[1]

24 Two firms, Y and Z, are competing in an oligopoly market. They are deciding whether to price their good at £10 or £5. Game theory can be used to analyse their behaviour. If collusion breaks down, which of the options below represents the profits firms will earn in the long run?

		Firm Z	
		£10	£5
Firm Y	£10	Option A £150m, £150m	Option B £30m, £250m
	£5	Option C £250m, £30m	Option D £80m, £80m

Your answer

[1]

25 What is most likely to lead to allocative efficiency being achieved in an industry that is a natural monopoly?

- A Collusion
- B Competition policy
- C Information provision
- D Regulation

Your answer

[1]

26 What efficiencies occur in the model of perfect competition in the long run?

- A Allocative and dynamic efficiency
- B Allocative, dynamic and productive efficiency
- C Allocative, productive and X efficiency
- D Allocative, dynamic, productive and X efficiency

Your answer

[1]

27 Using the table below, what has happened to the three firm market concentration ratio in the global mobile telephone market between 2010 and 2019?

Firm	2010 Market Share (%)	2019 Market Share (%)
Apple	33.2	24.8
Huawei	0	10.6
Nokia	37.6	0.4
Others	18.8	32.9
Samsung	2.4	31.3

- A Decreased by 0.6%
- B Decreased by 6.1%
- C Decreased by 6.5%
- D Decreased by 16.7%

Your answer

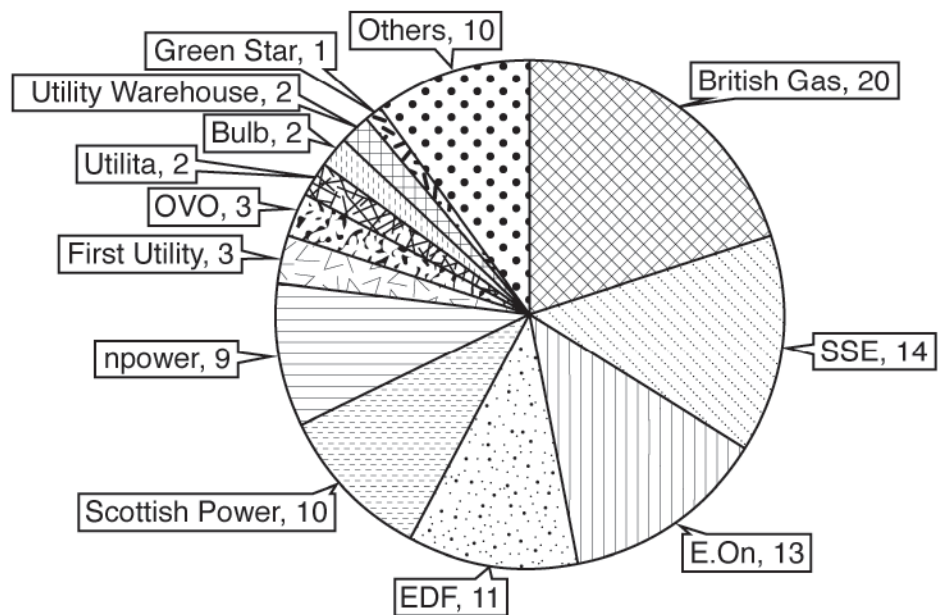
[1]

Headmaster Samuel Mukisa is one of millions of people in Uganda who are plugging into the global solar-power boom. As his students study, a single rooftop solar panel generates power. It is a solar storage system which costs Mukisa a daily rate of 15 cents. The average Ugandan earns as little as \$1.50 (£1.14) a day. He pays his bill each fortnight and will do so for another
5 year. When the payment plan is completed, Mukisa intends to upgrade to a second solar panel, so another class of students can shine.

For the 600m Africans living without access to power, fuel poverty is a socio-economic barrier. The World Bank estimates that if sub-Saharan Africa's economies had dependable electricity, GDP growth across the region could be up to 2% per annum higher than current rates.

10 Uganda, with a population of 42m, has one of the youngest populations on average in the world, with 7 out of 10 people under the age of 25. Incomes in the country have increased by 26% in the last two years. The service sector has grown from 32% of the economy in 1990 to 55% in 2018, with a 15% expansion in the last two years. Today, it is estimated that 44% of Ugandans use the Internet, 70% have a mobile phone and 6% use social media. The growing demand for energy in
15 Uganda is clear. Nevertheless, away from large cities, many individuals still operate in a barter economy. Rural agriculture based areas are still very common. However, their contribution to GDP is now only 24% of the total, down from 56% in 1990; a further reflection of the developing nature of the economy.

The energy supply market in Uganda, as in many African countries, is highly localised, with only
20 15% of its citizens living in homes connected to the country's energy network. The rest have to rely on arranging their own supply, increasingly using solar power. This is very different to the UK, where most of the population are customers of one of the large national energy suppliers (see Fig. 1).



Source: OFGEM

Fig. 1 - UK energy suppliers' market share, 2018 (%)

Uganda is at the centre of the solar energy revolution in Africa. For development organisations, including the United Nations, and socially minded investors, the opportunities are exciting. Street lights, topped with solar panels, charge up through the bright daylight hours and illuminate the streets each night. For a growing number of energy companies, the huge number of people without reliable power represents the opportunity to access a growing market.

Local start-up firms have appeared quickly, many with the backing of international companies. In 2018, one multinational energy firm, Shell, invested in three start-ups, SolarNow, SteamaCo and Husk Power Systems. These three have raised a total of \$30m from Shell and other investors. Shell's charity foundation also backs a UK-based firm, BBOXX. BBOXX has expanded rapidly, providing clean energy solutions and pay-as-you-go solar power. It aims to have provided home solar power systems to 20m people in Africa by 2020.

If Shell hopes to gain a control in the market it will need to compete against a former rival. The French firm, Engie, has taken the most decisive step into Africa's home solar market, with the acquisition of Ugandan-based Fenix International. Fenix supplies power to around 250 000 homes in Uganda, through the solar kits it sells in partnership with a mobile network provider.

The popularity of the Fenix home energy system means that the company is growing. It plans to expand into other countries, to reach millions more people. "We intend to be in multiple markets across eastern, southern and western Africa," said Chief Executive, Lyndsay Handler. "It's still amazing to me that so many people in Uganda do not have access to power. We provide a decentralised, affordable home system that can completely transform lives. An opportunity to rethink the way that we can achieve universal access to energy," she said.

45 "Beyond wanting to have an impact, we have always wanted to prove to the world that you can have a positive impact and deliver commercial returns. There's an underlying drive to show that this is not just charity. You can build commercial returns in Africa. We want to be part of a story that encourages others to see Africa as a commercial market. There are entrepreneurial people, with ideas and opportunities. They need investment, not just handouts," she said.

50 One Fenix customer for the past three years is Ritah Namatovu. She is now able to work at night to support her four grandchildren, thanks to her solar energy kit. Namatovu's only concern is that the solar panel might one day be stolen from her roof. "The solar panel is an asset I now own. There are no blackouts. These panels look so small, but they are powerful," she said.

Please refer to insert H460-01 October 2020, which can be downloaded separately and is included above.

Refer to Fig. 1.

Calculate the five-firm concentration ratio in the UK energy supplier market.

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29 * In recent years, most towns and cities have seen a rapid growth in the number of coffee shops and sandwich bars, the majority of which are small and locally-owned.

Evaluate, using an appropriate diagram(s), whether such small firms, operating in a monopolistically competitive market, can be economically efficient.

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END OF QUESTION PAPER

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
1	Firms usually take into account the income and cross elasticities of demand for their products when setting their prices. Evaluate whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product. Level 5 (21–25 marks) Good -Strong knowledge and understanding of the usefulness of and significance of YED and XED to economic agents. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product, and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of the usefulness of and significance of YED and XED to economic agents. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation of whether a firm which produces a product that has positive income elasticity of demand and positive	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	If consumer incomes fall, demand for products with positive income elasticity of demand will experience a fall in demand. To offset this downward pressure on demand, a firm may decide to reduce the price of its product. At a time of falling incomes, this may make its product more affordable and there will be an extension of demand / rise in quantity demanded. This may result in an increase in the revenue from sales. If the product has positive cross elasticity of demand, this suggests that the product has substitutes. The higher the value of the XED, the closer the substitutes are. In this situation, lowering the price of the product may enable the firm to capture more of the market and gain an increase in revenue due to an extension of demand / rise in quantity demanded. Greater market share may enable the firm to produce more and gain economies of scale. The lower long run average cost may result in higher profit margins and enable firms to increase not just sales but also profit. and higher supernormal profits. In addition, lowering price where XED is positive may enable a firm to achieve other objectives such as sales or growth maximisation or sales revenue maximisation. In these situations, firms that produce a product that has positive income elasticity of demand and positive cross elasticity of demand may consider lowering the price of the product. There are, however, a number of reasons why a firm with positive income and positive cross elasticity of demand should not reduce price. Over time, it is more common for income to rise than to fall. If the consumer incomes are growing, demand for the product will rise without the price having to be cut. Reducing price in a bid to capture sales from rival firms may not work. If the other firms reduce their prices, market share may remain the same while profit may fall due to lower revenue. This risk of rival firms matching price cuts is more likely in oligopolistic markets where

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	cross elasticity of demand should lower the price of the product which will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of the usefulness of and significance of YED and XED to economic agents. Good analysis of whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product, considering both sides/comparing alternatives. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of the usefulness of and significance of YED and XED to economic agents. Reasonable analysis of whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis.		there is a high level of interdependence as illustrated by the kinked demand curve. This suggests that prices tend to be relatively stable under conditions of oligopoly where firms' behaviour can be influenced by expectations of how its competitors will react to its pricing decisions. Of course, a firm will also consider the price elasticity of demand for its product. If demand is price elastic, a fall in price will raise revenue. In contrast a price inelastic demand for its product would cause revenue to fall with a relatively small increase in sales. Even if falls in income and the belief that rival firms will not match its price cuts, there are other reasons why a firm may not cut the price of its product. To gain more revenue from a lower price, the firm has to sell more output. To do this, it may be able to sell some units from stocks that it has been holding. However, most of the extra units are likely to have to come from higher output. It is possible that increasing output may raise cost by more than it raises revenue. If this is the case, profit would fall. This may discourage the firm from cutting the price even though the product it produces has positive income and cross price elasticities of demand. It is also possible that while the firm may believe that revenue will rise by more than cost, it may not be able to increase output to take advantage of a lower price. This will be the case, if the firm is operating at full capacity. If a firm is selling all it can currently produce at the current market price, whatever effect it thinks a lower price could have on sales, it would have no incentive to lower price. A firm producing under conditions of perfect competition may have positive income elasticity of demand for its product. The products produced by other firms in the market will be perfect substitutes for the firm's product. The firm will be a price taker with the price being set by market demand and supply. It will, therefore, have no incentive to lower price as it can sell any quantity at the going market price.

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance						
			Reasonable evaluation of whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product, considering both sides/comparing alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of the usefulness of and significance of YED and XED to economic agents. Limited or no analysis of whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of whether a firm which produces a product that has positive income elasticity of demand and positive cross elasticity of demand should lower the price of the product in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence. 0 marks</i> no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight</td><td>Above middle and either below top of</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight	Above middle and either below top of		Whether a firm with positive income elasticity of demand positive cross elasticity of demand should lower its price will depend on what is happening to income, how rival firms will react, price elasticity of demand for its product, the effect of higher output on average capacity and the firm's level of capacity. <u>Examiner's Comments</u> This question was attempted by relatively few candidates and the responses were the most variable in terms of quality. Weaker responses made little headway addressing the question set because their knowledge and understanding of elasticities was weak and inaccurate. One misconception was that goods with a positive income elasticity of demand were 'luxury' goods. Another was that a positive cross price elasticity of demand indicated a complementary relationship between two goods. Other responses started with accurate understanding of the concepts but then made incorrect assertions about the relationship between income and price elasticities of demand, for example. It was common for weaker responses to assume that a positive income elasticity of demand implied that the price elasticity of demand was elastic. Stronger responses were invariable those whose knowledge and understanding of elasticities was accurate and thorough. They were able to respond to the question in a clear and coherent way. For example, they would argue that a reduction in price would lead to an increase in quantity demanded which might be an appropriate in the case of normal goods when incomes were falling but not when incomes were rising. They also considered situations when a reduction in price would be a valid reaction given the existence of substitute goods as indicated by the positive cross price elasticity of demand. Stronger responses also recognised that the key determinant of the appropriateness of reducing price would be the price elasticity of demand and not the
Descriptor	Award mark										
Consistently meets the criteria for this level	At top of level										
Meets the criteria but with some slight	Above middle and either below top of										

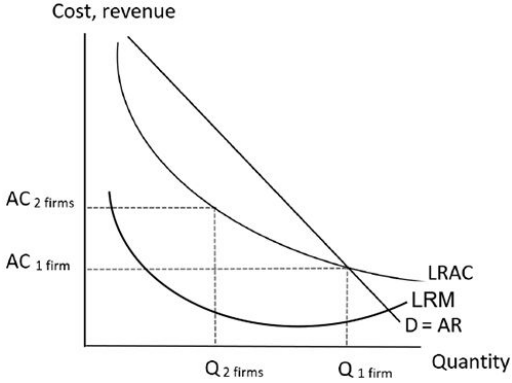
Mark Scheme

Question			Answer/Indicative content		Marks	Guidance
			inconsistency	level or at middle of level (depending on number of marks available)		income or cross price elasticity. There were some impressive responses, which looked at pricing behaviour in oligopolistic markets as a way of evaluating whether a firm should lower prices. Effective use was made of the kinked demand curve model.
			Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)		
			On the borderline of this level and the one below	At bottom of level		
			Total		25	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
2	a		Identify and explain, using the stimulus material, one reason why the privatisation of the rail network has made it a more contestable market. • Rail infrastructure is owned and maintained by Network Rail (1) which removes a significant entry barrier in providing passenger rail services by TOCs (1). • Rail infrastructure is owned and maintained by Network Rail (1) which reduces sunk costs of entry (1). • TOCs bid for franchises to operate passenger rail services (1) which allows for pool of potential entrants / contest for right to supply (1). • Franchises last for a fixed time period (1) which allows a contest by potential entrants at the end of the franchise period (1).	2 (AO1*1) (AO2*1)	A contestable market has the following characteristics • no barriers to entry/exit • low/zero sunk costs • the possibility of hit and run entry from a pool of potential entrants. Max of 1 mark for any of these characteristics. References to the number of TOCs / change in the number of TOCs are not relevant to this question. Annotate with  <u>Examiner's Comments</u> Weaker candidates confused contestability with competition and focused on the number of Train Operating Companies. Better candidates recognised that barriers to entry had been reduced by the bidding process or by the creation of a state-owned provider of rail infrastructure. Credit was available to candidates who had knowledge of contestability even if they were not able to link this to the information in the stimulus material.

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
b	Explain, using a diagram, why the high level of fixed costs in providing the infrastructure of the railway network make it an example of a natural monopoly - A high level of fixed costs in the railway network means that the monopoly firm will have declining AC due to fixed costs being spread over a greater output (1). - Large economies of scale mean that LRAC is constantly declining (1). - A single firm can satisfy market demand at a lower AC than two or more firms, so that competition is economically inefficient. (1) - Total costs of provision of the good or service are lower with one firm supplying the market / wasteful duplication with more than one firm (1) - Economies of scale are large in comparison to market demand such that there is only 'room' for one firm in the market (1) 	3 (AO2*2) (AO2*1)	Up to 2 marks for a diagram which shows: - declining LRAC (1) - LRMC below LRAC (1) - lower AC of a single firm supplying market demand (1) - higher AC of more than one firm supplying market (1) - demand curve showing economies of scale are large in comparison to market demand (1) No marks for a monopoly diagram 1 mark for an explanation why the high level fixed costs in providing the infrastructure of the railway network make it an example of a natural monopoly. Reference to economies of scale on its own, without reference to the size of the market / demand, is insufficient. Annotate with  Examiner's Comments The diagrams offered by many candidates did not show a good knowledge and understanding of natural monopoly, in terms of constantly declining LRAC relative to the size of market demand. The lack of knowledge and understanding was also evident in the explanation of why a high level of fixed costs in providing infrastructure make the railway network and example of a natural monopoly. Better candidates were able to gain the mark available for explanation of the diagram by stating that a single firm can satisfy market demand at a lower average and total cost than two or more firms, so that competition would be economically inefficient.

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
	c	i	What evidence is there in the stimulus material of TOCs engaging in price discrimination? Different prices are charged for a journey from Newcastle to London (1) at different times (1).	2 (AO1*1) (AO2*1)	Annotate with  <u>Examiner's Comments</u> This question was well answered, candidates recognising that the stimulus material included evidence that different prices were charged for a journey from Newcastle to London at different times.

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
		ii	Evaluate the extent to which the consumer benefits from price discrimination by a firm with monopoly power. Level 2 (5–8 marks) Good knowledge and understanding of the concept of price discrimination and of the impact of price discrimination on the consumer in a context provided by the candidate. Good – Strong analysis of the ways in which price discrimination impacts upon the consumer • Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. • Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Reasonable – Strong evaluation of the impact of price discrimination on the consumer considering both sides and underpinned by appropriate theoretical analysis. • Good evaluation will weigh up both sides but without reaching a supported judgement. • Strong evaluation should include a supported judgement. Level 1 (1–4 marks) Limited – Reasonable knowledge and understanding of the concept of price discrimination and of the impact of price	8 (AO1 x 1) (AO2 x 1) (AO3 x 3) (AO4 x 3)	Price discrimination occurs when a business, with monopoly power, charges different prices to different people for the same product, due to reasons other than cost difference. It relies on various conditions being met such as monopoly power, different elasticities in each market and an ability to prevent resale and separate the different markets. It can be argued that some consumers will benefit from the relatively low prices offered by the discriminating monopolist in some markets. These relatively low prices might attract consumers to the product / service who might not have consumed it. This process might overcome information failure which might be limiting use of the product by certain groups. An example could be the relatively low rail fares on off peak services which might encourage consumers to use train services. These consumers will have a greater amount of consumer surplus than the consumers using the peak time services with a relatively higher price. Another argument is the case of a monopoly price discriminator who does so in order to make provision of a service economically viable. In such a case any single price operation would only lead to loss making and consequently the removal of the service for all. Because of this, price discrimination benefits consumers as it makes available a good or service which otherwise would not be available to consume. On the other hand it can be argued that the monopoly supplier is simply separating the markets in order to reduce consumer surplus in all markets. In essence consumer surplus is converted into producer surplus. Compared to a competitive market all consumers may lose out due to the monopoly power.

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance								
			discrimination on the consumer in a context provided by the candidate. Limited – Reasonable analysis of the ways in which price discrimination impacts on the consumer. • Limited analysis will have little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. • Reasonable analysis will have correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Limited evaluation of the impact of price discrimination on the consumer in the form of an unsupported statement or no evaluation. 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)		The extent to which the consumer benefits from price discrimination by a firm with monopoly power depends on the nature of the good or service. For example, It could be argued that the potential to increase the number of consumers able to afford passenger rail services is a more important consideration than any negative impact on consumer surplus. This is because, passenger rail services could be considered to be a service with positive externalities and would otherwise be underprovided. <u>Examiner's Comments</u> Despite correct answers to the previous question, weaker candidates focused on the advantages and disadvantages for consumers of monopoly power rather than of price discrimination. In other responses, there was very good knowledge and understanding of the different types of price discrimination but not always analysis of how this might impact on consumers. The best candidates were able to use their knowledge and understanding of price discrimination to analyse and evaluate the benefits to consumers. For example, they were able to identify which consumers would gain or lose based on the characteristics of demand, how price discrimination might allow provision to some consumers who would not otherwise have access to a good or service and how the generation of increased profits from price discrimination might allow firms to improve the quality of the good or service over time. This was the first of the questions on the paper which was marked using the new holistic method of assessments, which allowed for effective discrimination between different types of responses.
Descriptor	Award mark												
Consistently meets the criteria for this level	At top of level												
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)												
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)												

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			On the borderline of this level and the one below	At bottom of level	
			Total	15	

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
3	Perfect competition theory is based on a set of very unrealistic assumptions Evaluate the usefulness of perfect competition theory in explaining the behaviour of firms in the real world. Level 5 (21–25 marks) Good – Strong knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of the usefulness of perfect competition theory in explaining business behaviour weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries. Strong analysis will have consistently well-developed links through a coherent chain of reasoning links which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	For a mark at the top of each level the response should be in context. The model of perfect competition assumes that firms aim to maximise profits, there are many buyers and many sellers, the product is homogeneous, there are no barriers to entry or exit and that there is perfect knowledge on the part of both consumers and producers. The theory of perfect competition is useful in explaining the behaviour of firms in the real world, particularly in those markets such as agriculture, commodities and foreign currency markets which approximate to the perfect competition model. Where markets do not approximate to the perfectly competitive model the theory still has uses in explaining the behaviour of firms. This is because the model predicts that firm behaviour in markets which are not perfectly competitive will reduce economic efficiency (productive and allocative). Therefore there are important implications for competition policy and the regulation of such markets by reducing entry barriers, investigating of mergers and monopoly and legislation to prevent / punish collusion and combat anti-competitive behaviour (predatory pricing, vertical restraints etc) and the provision of information for consumers and producers. These points can be illustrated with real world examples. On the other hand, there are limitations of the theory of perfect competition in explaining the behaviour of firms in the real world mainly resulting from unrealism of the assumptions made in the theory. Conclusions about impact of competition on prices, productive and allocative efficiency may be invalid if one or more of the conditions of perfect competition are not met. For example, firms do not always profit maximise, products are differentiated, markets might be dominated by one or a few sellers, collusion amongst sellers may

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	the analysis. Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries. Good analysis of the usefulness of perfect competition theory in explaining business behaviour. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of the usefulness of perfect competition theory in explaining business behavior. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries. Reasonable analysis of usefulness of perfect competition theory in explaining business behaviour. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be		occur. Illustrations of the above using real world examples. There is also the issue of whether competition is necessary for the behaviour of firms to bring about efficiency gains. Actual competition (number of firms) may not be as important as potential competition (contestability) No one theory is able to explain the business behaviour in the real world. Perfect competition theory is, therefore, one of many theories explaining likely behaviour in a range of market structures. The usefulness of economic theories should be judged on the accuracy of their predictions rather than the realism of their assumptions <u>Examiner's Comments</u> This proved to be a challenging question for those candidates who chose it. Weaker candidates did not have a sufficient grasp of the usefulness of the theory of perfect competition, so spent the bulk of their answer simply outlining the theory. Reference to markets such as agriculture, commodities and foreign currency markets would have enabled many candidates to engage better with the question. Reference to the implication of the theory in making judgements about the efficiency of real world markets, for competition policy and the regulation of such markets by was rarely seen. Candidates were more comfortable identifying the unrealism of the model, however, and tended to do this well. Without good analysis the usefulness of the theory some candidates could not be awarded beyond Level 2 of the mark scheme.

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			imperfectly labelled or not linked to the analysis. Reasonable evaluation of the usefulness of perfect competition theory in explaining business behaviour considering both sides/comparing alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of perfect competition and of the behaviour of firms in the context of specific markets and industries. Limited or no analysis of the usefulness of perfect competition theory in explaining business behaviour. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of the usefulness of perfect competition theory in explaining business behaviour in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.		

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			Descriptor	Award mark	
			Consistently meets the criteria for this level	At top of level	
			Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	
			Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)	
			On the borderline of this level and the one below	At bottom of level	
			Total	25	
4			C	1 (AO3)	Rationale A Supernormal profit would not be present in a contestable market. B Economies of scale are not as substantial in monopolistic competition. C Correct: the downward sloping AC curve demonstrates it is more efficient to have just one firm operating in the market. D The demand curve would be kinked in an oligopoly.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
5			C	1 (AO1)	Rationale A The PPF gives no information about wants so it is impossible to assess allocative efficiency. B There would be no opportunity cost of producing more of either good as there are spare resources. C Correct: The economy is not productively efficient as not all factors of production are fully and efficiently employed. D The PPF gives no information about wants so it is impossible to assess scarcity.
			Total	1	
6			D	1 (AO3)	Rationale A Occurs when price does not equal marginal cost. B Occurs when firms are not investing in research and development. C Occurs when firms are producing at a level of output that does not enable them to achieve the lowest possible average cost – ie. they are not operating at the MES on the LRAC curve. D Correct: firms are essentially operating on an LRAC curve above the lowest attainable LRAC curve.
			Total	1	

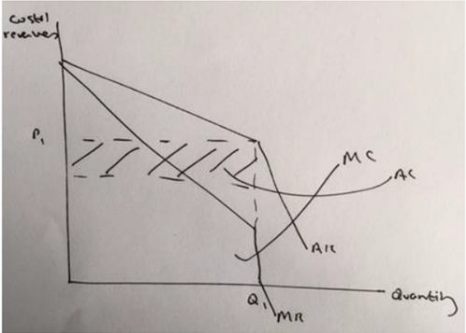
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
7			D	1 (AO1)	Rationale A Collusion is a consequence of an oligopoly; all market structures have the potential to be contestable. B Firms will only make a normal profit in the long run to prevent hit and run. C The theory of contestable markets dictates there is a high level of potential competition, not necessarily significant actual competition. D Correct: the lack of barriers to entry is what provides the threat of competition that makes the market contestable.
			Total	1	

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
8	Evaluate, using an appropriate diagram, the extent to which consumer welfare is harmed as a result of the bicycle industry being an oligopoly. Level 3 (11–15 marks) Good knowledge and understanding of the oligopoly model. Good – strong analysis of the way in which oligopolies harm consumer welfare. Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good - strong evaluation of whether oligopolies harm consumer welfare, weighing up both sides/comparing alternatives. Strong evaluation should include a supported judgement. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i> Level 2 (6–10 marks) Good knowledge and understanding of the oligopoly model. Reasonable analysis of the way in which oligopolies harm consumer welfare. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the	15 (AO1 x 2) (AO2 x 3) (AO3 x 4) (AO4 x 6)	Guidance: • For Knowledge & Understanding to be Good, there must be both an accurate diagram and application to the bicycle industry • A monopoly diagram is an acceptable alternative to the KDC, providing it is explained in the context of oligopolists colluding to act as one firm. • Analysis and Evaluation cannot be awarded beyond Reasonable unless the answer includes a diagram and there is application to the bicycle industry within the answer. • In depth analysis of one harm of an oligopoly can be awarded up to Good analysis. For example: ◦ Oligopolists collude to charge consumers high prices (Limited) ◦ Oligopolists collude to charge consumers high prices, explicitly explained using KDC theory (Reasonable) ◦ Oligopolists collude to charge consumers high prices, clearly explained using KDC theory, leading to reduced consumer surplus/high prices explained using game theory/consumers charged a price above marginal cost (Good) • Analysis of at least two different harms must be offered for Strong analysis. • Whilst most candidates will start their answers with the harms of oligopoly to consumers, the reverse approach is equally valid – benefits of oligopolies to consumers can be credited as Analysis if presented first. • A number of limited analytical/evaluative points can be awarded up to Reasonable, but to be awarded Good or Strong there needs

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	analysis. Reasonable evaluation of whether oligopolies harm consumer welfare, considering both sides/comparing alternatives. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 1 (1–5 marks) Limited – reasonable knowledge and understanding of the oligopoly model. Limited analysis of the way in which oligopolies harm consumer welfare. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. Limited evaluation of whether oligopolies harm consumer welfare, in the form of an unsupported statement or no evaluation. <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i> 0 marks no response or no response worthy of credit.		<i>to be greater depth of explanation.</i> • <i>Strong evaluation requires an explained judgement. An explained judgement without Good evaluation can be credited as evaluation.</i>  Analysis may include: • As profit maximising firms, oligopolists collude to use their market power to set prices high. The incentive to collude occurs because firms will lose revenue if they raise price (elastic demand) or lower price (inelastic demand), meaning they do not compete on price. This can be further explained using the Prisoners Dilemma, where firms can maximise joint welfare by colluding at High, High. This means consumers suffer from reduced consumer surplus. • Prices may rise even further over time as the lack of competitive pressure can lead to firms being X-inefficient, producing above their lowest attainable average cost. • Firms deliberately restrict output to keep prices high - this means consumers suffer from allocative inefficiency, with too few resources allocated to the bicycle market. • Consumers suffer from poor quality bicycles as the lack of competition means firms have no incentive to be dynamically efficient and invest in

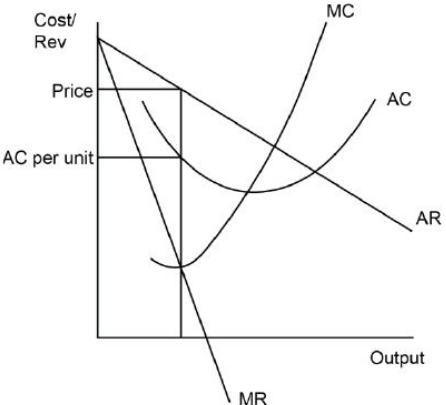
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
					R&D. - The interdependent nature of firms means there is little product differentiation - consumers therefore have little choice as firms are selling very similar bicycles. Evaluation may include: - If collusion breaks down consumers can benefit from price wars. The Prisoners Dilemma shows us the Nash equilibrium is at Low, Low. - Price rigidity can benefit consumers who appreciate stable bicycle prices. Even if costs increase consumers may not experience price rises. - Supernormal profit can be reinvested into R&D, with firms being dynamically efficient. Firms in oligopoly compete on non-price factors, which can drive improvements in quality. Extract 3 illustrates the significant development of bicycles that have come as a result of this. - The data in Figure 3.1 suggests consumers haven't been exploited, with prices generally falling in real terms. The exception was in 2009, but this sudden spike suggests another factor caused the price rise in this year rather than oligopolies abusing their market power. - The entry of new firms to the bicycle market suggests it is contestable. This benefits consumers as they get greater choice and are not exploited with high prices, as oligopolists will charge a price equal to AC to avoid hit and run competition. In these circumstances consumers benefit from the economies of scale enjoyed by large firms without being exploited. - If firms are not profit maximising but

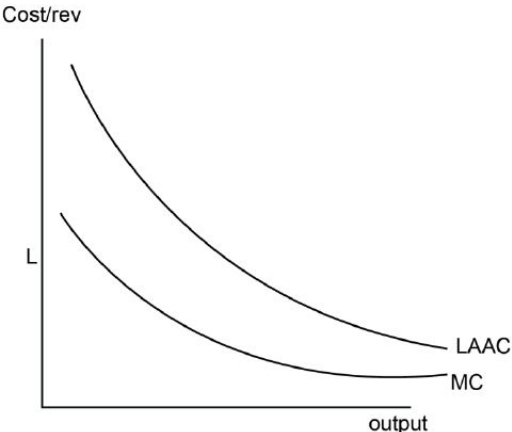
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
					pursuing an alternative objective then consumer welfare may not be harmed to the same extent. The CMA often intervenes to prevent collusion – regulation can therefore reduce the harm caused by oligopoly firms. <u>Examiner's Comments</u> Candidates displayed a thorough understanding of the model of oligopoly when answering this question. Most began by arguing the market power of firms meant consumers would suffer from high prices and then evaluated this by suggesting non-price competition would benefit consumers in the form of quality improvements. Diagrams were generally accurate and well explained, but occasionally monopoly diagrams were presented instead of a kinked demand curve without an associated explanation that colluding oligopolists can act as a monopolist; without this explanation a monopoly diagram was not credited. The best answers used game theory to good effect, offering a prisoner's dilemma to explain that whilst joint welfare is maximised at high prices consumers may often benefit from price wars as firms revert to the Nash equilibrium. Effective judgements centred around the role of regulation and contestability in determining the impact of an oligopoly. Less successful answers considered the advantages and disadvantages of oligopoly without a clear focus on the bicycle industry or consumer welfare.
			Total	15	

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
9	One of the roles of the Competition and Markets authority is to prevent the abuse of monopoly power. Evaluate, using an appropriate diagram(s), the potential impact of monopoly power within an industry. Level 5 (21–25 marks) Good - Strong knowledge and understanding of monopoly. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of the impact of monopoly power weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of monopoly. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation will weigh up both sides/comparing alternatives but without	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	Monopoly power exists in theory when one firm controls the whole of the market. In practice any firm with over 25% market share is considered to be a monopoly. Monopoly power is usually associated with abnormal profits, high barriers to entry and a lack of competition.  The diagram above may be used to illustrate analysis of price, abnormal profits, productive and allocative inefficiency. The analysis of the potential impact of a monopoly may include the following negative impacts The monopolist has power over price as it has the ability to be a price maker. This is because the lack of competition allows the monopolist to reduce the amount of consumer surplus The monopolist can also restrict output in order to increase price. These two features create a situation where the firm is able to earn abnormal profits and operate at levels of output which are both productively and allocatively inefficient. Abnormal profits represent a redistribution of income in favour of the entrepreneurs and away from consumers which is both inefficient and may be considered unfair/inequitable. The monopolist may also maintain barriers to entry through aggressive behaviour

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Question	Answer/Indicative content	Marks	Guidance
	reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of monopoly. Good analysis of the negative and positive impacts of monopoly power. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of the impact of monopoly power considering both sides/comparing alternatives. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of monopoly. Reasonable analysis of the negative and positive impacts of monopoly power. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation of the impact of monopoly power considering both sides/comparing alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The</i>		towards potential entrants.eg entry limit pricing or predatory pricing. It may also take-over any potential entrants. Under certain conditions a monopolist has the ability to operate price discrimination to convert consumer surplus into abnormal profit. A diagram may be used here. On the other hand monopoly power can be seen to have some beneficial effects on the economy. The monopoly may be a natural monopoly benefiting from continuous falls in LRAC. Examples might include state controlled activities such as rail networks or power distribution. A diagram may be used to analyse various aspect of this argument. The fundamental requirement is a LRAC curve which continues to fall as output increases. The MC curve will be below the LRAC curve.  Abnormal profit may be used to reinvest in research and development into new products and production techniques. Thus potentially making the firm more dynamically efficient. So improving both productive and allocative efficiency in the very long run. Monopoly power on a domestic basis may enable a company to be internationally competitive. Helping employment, growth and the balance of trade.

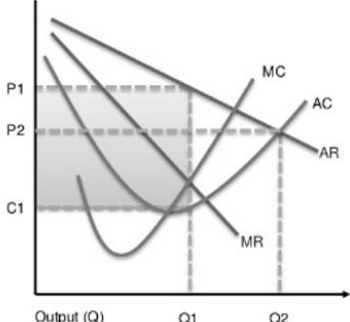
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance										
			<i>information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of monopoly. Limited or no analysis of the negative and positive impacts of monopoly power. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of the impact of monopoly power in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr><tr><td>On the borderline of this level and the one below</td><td>At bottom of level</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)	On the borderline of this level and the one below	At bottom of level		The objectives of the monopoly firm may not be profit maximisation but some philanthropic objective.
Descriptor	Award mark														
Consistently meets the criteria for this level	At top of level														
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)														
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)														
On the borderline of this level and the one below	At bottom of level														
			Total	25											

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
10	A firm in a monopolistically competitive market decides to introduce more casual employment practices, such as zero-hour contracts. Explain, using a diagram, the effect of this decision on the firm's equilibrium position in the short run. - The introduction of casual employment practices, such as zero hours contracts, will lead to a fall in average costs (1) - There will be a fall in price and an increase in output if all labour is treated as a variable cost (1). - There will be no change in price and output if all labour is treated as a fixed cost and AC only falls (1) - There will be an increase in profit (1). - The firm may move from a loss-making situation to a profit-making situation (1). <i>Market demand and supply diagram is not accepted, but where candidates take this approach they can gain marks for an explanation which includes lower prices and higher output.</i>	4 (AO1*2) (AO2*2)	Candidates do not have to make their assumption about the nature of labour costs explicit. Up to 2 marks for a diagram (<i>max 1 mark if axes unlabelled</i>) which shows: - equilibrium price and output before the introduction of zero-hours contracts (1) - a fall in AC OR AC and MC (1) - equilibrium price and output after the introduction of zero-hours contracts where AC and MC both fall (1) - profit / increase in profit after the introduction in zero-hours contracts (1) Annotate with Examiner's Comments Some candidates produced labour demand and supply diagrams rather than a monopolistic competition diagram but were able to pick up 2 marks for an explanation that mentioned average costs, output and profit. Monopolistic competition diagrams which showed either a decrease in fixed or variable costs were able to access the 2 diagram marks.
	Total	4	

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
11	Netflix is the world's largest online video subscription service. By 2018, after only 10 years in existence, it had 137 million worldwide subscribers. 65% of online video viewers in the USA watch Netflix at least once a month. Level 5 (21–25 marks) Good – Strong knowledge and understanding of a perfectly contestable market and how it functions. Strong analysis of the advantages OR disadvantages of a perfectly contestable market will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of the advantages OR disadvantages of a perfectly contestable market, weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of a perfectly contestable market and how it functions. Strong analysis of the advantages OR disadvantages of a perfectly contestable market will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	To ensure the demands of this question are comparable with others on the paper, advantages of a contestable market should be marked as analysis and disadvantages as evaluation. A perfectly contestable market assumes: • no barriers to entry so there is a constant threat of new entrants to the market to provide competition. In this case, the existence of a few or even only one firm in the industry may not lead to inefficiency; • the absence of sunk costs; • firms do not collude to fix prices; • perfect information and the ability for all suppliers to make use of the best available production technology in the market. In the diagram below, a pure monopoly might maximise profit at price P_1. If a market is contestable, there is downward pressure on price, because the existence of supernormal profits provides a signal for new firms to enter the market and if the existing monopolist is producing at too high a price or has allowed its average costs to rise, then entrants can undercut the monopolist and some of the monopoly profit will be competed away. Normal profit equilibrium occurs when average revenue equals average cost (at Q_2, P_2). Price, costs, revenue  The advantages of contestable markets therefore include:

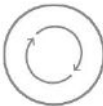
Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation of the advantages OR disadvantages of a perfectly contestable market, weighing up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of a perfectly contestable market and how it functions. Good analysis of the advantages OR disadvantages of a perfectly contestable market. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of the advantages OR disadvantages of a perfectly contestable market considering both sides/comparing alternatives. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of a perfectly contestable market and how it functions. Reasonable analysis of the advantages OR disadvantages of a perfectly contestable market. There is correct analysis largely in the form of single links.		• lower prices (allocative efficiency) • higher consumer surplus • increased incentives for firms to cut costs (x-efficiency) • increased incentives for firms to respond to consumer preferences (allocative efficiency) The disadvantages to a contestable market may include: • incumbent firm(s) may deliberately limit profits made to discourage new entrants – ‘limit entry pricing’. New entrants are likely to have higher average costs so if the incumbent drops its price below P1 this may now be above the new entrant’s average costs. The incumbent can drop its price as low as P2 to achieve this and still make normal profit. This may limit competition and decrease efficiency measures. • firms may attempt to erect artificial barriers to entry, for example, aggressive marketing or predatory pricing which may be seen as inefficient. • the lack of supernormal profit may reduce the incentive of the firms to invest and innovate so quality may be lower – dynamic efficiency not achieved. • in reality, no market is perfectly contestable, but it is also true that virtually every market is contestable to some degree. Barriers to contestability exist when there are sunk costs, expenses that cannot be recovered once a firm has entered the industry. When sunk costs are high, a market is more likely to produce a price and output similar to monopoly (with the risk of allocative and productive inefficiency). Examiner’s Comments Responses to this question were mixed. Lower ability candidates did not have an accurate understanding of contestable

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		These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation of the advantages OR disadvantages of a perfectly contestable market considering both sides/comparing alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of a perfectly contestable market and how it functions. Limited or no analysis of the advantages OR disadvantages of a perfectly contestable market. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of the advantages OR disadvantages of a perfectly contestable market in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks No response worthy of credit. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of		markets. The result was that their analysis of the advantages and disadvantages of such markets was confused, often mistaking contestability for competition and using perfect competition diagrams as the basis for their response. Higher ability candidates clearly understood the characteristics of a perfectly contestable market and began their response with a statement of these. They offered fully labelled and accurate diagrams showing the impact of a contestable market on a firm's price output and profits which was fully integrated into their response and showed sustained chains of reasoning. Extended analysis often considered issues related to efficiency, clearly distinguishing between allocative, productive and dynamic. Exemplar 5 A perfectly contestable market is a market to which there are no barriers to entry, whether they be sunk costs, knowledge about the industry, regulation by government or brand loyalty. None of these ~~costs~~ exist. Perfectly contestable markets have many benefits, primarily being increases in efficiency. This is directly illustrated by a monopoly industry. As if a monopoly industry is perfectly contestable, then the monopoly will be more efficient. This is because the monopoly does not want to produce abnormal profits, as this would attract new entrants to the market. This means the monopoly does not produce at the profit max output Q_1 where $MR > AC$ but instead produces at the social max output of Q_2 where $AC = AR$. The contestability makes the monopoly more allocatively efficient: the new price of P_2 is closer to MC than it was before. It is also more productively efficient: P_2 is closer to the min of AC than P_1 was, meaning less resources are being used more productively. The increase in efficiency also benefits consumers as their consumer surplus is protected/increased. Overall, contestability has huge benefits because DWL to society has decreased (was previously ABC) and the market has become more allocatively and productively efficient. Contestability, defined as the threat of competition, reduces monopoly power and has many advantages.
Descriptor	Award mark									
Consistently meets the criteria for this level	At top of level									
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of									

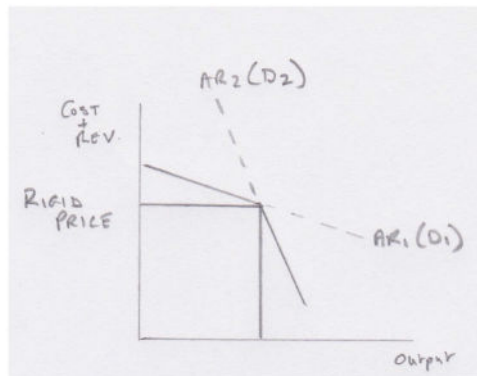
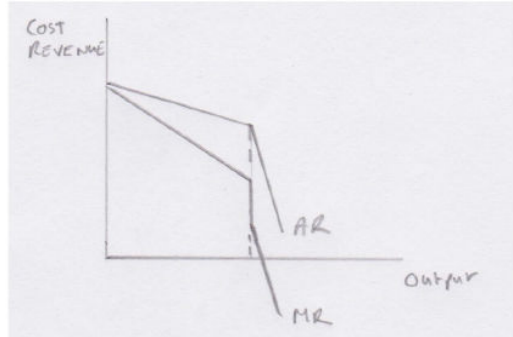
Mark Scheme

Question			Answer/Indicative content		Marks	Guidance
				level (depending on number of marks available)		In Exemplar 5, the candidate makes a good start to this question showing a clear understanding of a perfectly contestable market, an accurate and fully integrated diagram and strong analysis of the advantages using developed chains of reasoning. Consideration of the disadvantages of a contestable market was awarded as evaluation. A common approach was to consider the impact on dynamic efficiency of lower levels of profit. This followed naturally from the diagrammatic analysis and, so, was well supported by chains of reasoning. Strong evaluation needs to include a reasoned judgement at some point in the response. Often this is attempted at the end of a response in the form of a conclusion. Lower ability candidates tend to repeat the arguments raised in their response rather than make a judgement on the balance of the arguments. Higher ability candidates are able to draw upon their arguments to show under what circumstances some arguments may be more significant than others.  AfL Centres can help candidates to see the difference between a summative conclusion and a judgement by getting them to think about: • what the advantages and disadvantages of a particular economic issue depend upon; • how the advantages and disadvantages might be different in different real world market; • how government intervention might reduce the disadvantages.
			Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)		
			On the borderline of this level and the one below	At bottom of level		

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
					Exemplar 6 <i>In conclusion the foregoing controllable market does lead to both advantages and disadvantages in the market. But depends on whether the anti competitive behaviour can take place on the competition market authorizing able to stop it and whether the new firm entering the market able to take the employees and have enough capital to compete with the established firm.</i> Exemplar 6 is an example of a response which was awarded strong evaluation because of the judgement made. Here the candidate shows clearly what the balance of advantages and disadvantages depend on. The judgement could be even better if the candidate had chosen to focus on just one of the factors given and developed it with chains of reasoning that addressed 'how' or 'why' the factors determines the outcome.
			Total	25	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
12	a		Compare the 3 firm concentration ratio for supermarkets in the grocery market in July 2014 and July 2016. In July 2014, the 3 firm concentration ratio was $28.9+17+16.6 = 62.5\%$. In July 2016, $28.3+16.3+15.5 = 60.1\%$ (1 mark) 3 firm concentration ratio fell (1 mark) by 2.4 percentage points (1 mark).	2 (AO2*2)	Both correctly calculated but no indication that the concentration ratio fell = 1 mark.
	b		Explain, using a diagram, the significance of the kinked demand curve model on the way in which firms behave in oligopoly markets. The kinked demand curve is used to illustrate the short run common feature of price rigidity in Oligopoly markets. (1 mark) As P increases and P decreases both are met by a revenue fall, due to the elastic and inelastic D curves respectively, the sensible firm is more inclined to leave price constant. (1 mark) Paving the way for greater non price competition. (1 mark) Due to the shape of the kinked demand curve firms may be reluctant to change prices even if costs change. This can lead to fluctuations in profit as shown in Fig.3. (1 mark) Predominantly correct diagram. Either diagram 1 or 2 (1 mark). e.g. The kinked demand curve relates to an oligopoly in which firms try to anticipate the reaction of rivals to their actions, in particular to changes in the price of the product. The firm must form expectations about how consumers and other firms will react to a price change.	4 (AO1*1) (AO2*3)	 Diagram 1 – simple kinked demand curve.  Diagram 2 – kinked demand curve with discontinuous MR curve.

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Question			Answer/Indicative content	Marks	Guidance
			If the individual firm increases price, then the expectation is that total revenue will fall as competitors will not increase their prices and the firm will lose market share. This suggests it is faced with an elastic demand. A price cut will, on the other hand, leads to the expectation that other firms will copy the price cut to remain price competitive. This will result in the market shares remaining constant but at a lower price. Total revenue will again fall indicating an inelastic response to the price change. This produces the kink in the demand curve and hence the discontinuous and vertical marginal revenue line. The significance of the discontinuous marginal revenue line is that the costs of a firm might change but this will have no impact on the level of output. MC will equal MR at the level of output consistent with the price at the kink.		
	c		Using evidence from the stimulus material, evaluate the extent to which the grocery market in the UK can be described as an oligopoly. Level 3 (9–12 marks) Good knowledge and understanding of oligopoly. Good – strong analysis of how of the extent to which the UK grocery market can be described as an oligopoly. Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant	12 (AO1 x 1) (AO2 x 1) (AO3 x 5) (AO4 x 5)	An oligopoly is a market dominated by relatively few firms/few sellers. An important characteristic is that each firm must take account of its rivals' behaviour and reactions. The firms are therefore interdependent. Each firm has to act strategically in trying to anticipate their future actions and reactions. Barriers to entry are usually high as a result of the economies of scale available to incumbent firms. On the one hand the UK grocery market could be described as an oligopoly. It is dominated by a few large firms as evidenced by the 3 firm concentration ratio. In products which are homogenous there tends to be a strong degree of price rigidity. This results in non-price competition in the form of advertising, special offers, delivery services etc. Such non price competition is often associated with oligopoly. Firms are clearly interdependent and react to one another's strategies very quickly – this has led to the

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Question	Answer/Indicative content	Marks	Guidance
	errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good – strong evaluation of the extent to which the UK grocery market can be described as an oligopoly, weighing up both sides/comparing alternatives. Strong evaluation should include a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i> Level 2 (5–8 marks) Good knowledge and understanding of oligopoly Reasonable analysis of the extent to which the UK grocery market can be described as an oligopoly. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis of the case for or against private sector ownership Reasonable evaluation of the extent to which the UK grocery market can be described as an oligopoly. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 1 (1–4 marks) Limited – reasonable knowledge and understanding of oligopoly. Limited analysis of the extent to which the UK grocery market can be described as an oligopoly. Little evidence of reasoning that addresses the question asked. There is a		growth of on line delivery services by many, but not all, of the major supermarkets. On the other hand, the grocery market could, in theory, be seen as a monopoly with Tesco holding over 25% of the grocery market and in some years earning very high profits. Although this is a declining share it still represents enough for the CMA to investigate its behaviour. It could also be argued that the emergence of new entrants such as Aldi and Lidl is creating much more of a monopolistic competition scenario. This could explain the fierce advertising, price war and fluctuating profits which exist, especially in a period of recession. The involvement of Amazon and inclusion of Argos in the debate further adds to the argument for monopolistic competition. The sub market of online grocery sales has created a more diverse market in terms of the number of firms operating in the market. A further observation may be that the grocery industry is now displaying the characteristics of a more contestable market. The growing number of rivals and potential new entrants may suggest some lowering of barriers to entry. This, combined with some evidence of lower profits in some years, may be used to support the case that the market is now competing away abnormal profit, leaving just normal profit at an output level that is relatively more efficient, both productively and allocatively.

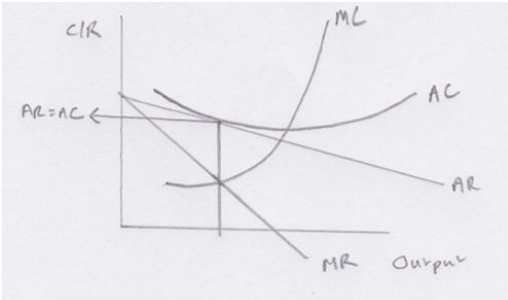
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance										
			lack of a clear structure. Limited evaluation of the extent to which the UK grocery market can be described as an oligopoly in the form of an unsupported statement or no evaluation. <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr><tr><td>On the borderline of this level and the one below</td><td>At bottom of level</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)	On the borderline of this level and the one below	At bottom of level		
Descriptor	Award mark														
Consistently meets the criteria for this level	At top of level														
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)														
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)														
On the borderline of this level and the one below	At bottom of level														
			Total	18											

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
13	Evaluate, using an appropriate diagram(s), the advantages to the consumer of monopolistic competition. Level 5 (21–25 marks) Good – Strong knowledge and understanding of how monopolistic competition affects consumers. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of how monopolistic competition affects consumers considering extent and alternative and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of how monopolistic competition affects consumers. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment.	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	Monopolistic competition is characterised by a large number of firms, very low or no barriers to entry and product differentiation. In the short run supernormal profits can be earned but in the long run only normal profits can be earned. The major advantage of monopolistic competition to the consumer derives from the high degree of competition generated by freedom of entry. In the long run this competition drives down the price of the product. This is reinforced by the fact that despite the existence of product differentiation the products are still close substitutes. This can be demonstrated by using the short run and long run diagrams for equilibrium in monopolistic competition. The existence of a large number of firms also allows a greater freedom of choice for the consumer. Consumers are not exploited by entrepreneurs as they are unable to gain any LR abnormal profit. Hence income distribution may be less unfairly skewed towards the risk takers. On the efficiency side it can be argued that the need to compete with many firms may result in less X-inefficiency than under a complacent monopolist. Diagram Short run equilibrium 

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	<i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of how monopolistic competition affects consumers Good analysis of how monopolistic competition affects consumers. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of how monopolistic competition affects consumers considering extent and alternatives. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of how monopolistic competition affects consumers. Reasonable analysis of how monopolistic competition affects consumers. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation of how monopolistic competition affects consumers considering extent and alternatives.		Diagram Long run equilibrium  On the other hand, both short and long run monopolistic competition fails to create productive and allocative efficiency when at equilibrium. In both cases, at equilibrium, average cost does not equal marginal cost. No productive efficiency. Similarly, average revenue (price) does not equal marginal cost. No allocative efficiency. Thus monopolistic competition does not benefit the consumer as much as perfect competition. Product differentiation means that firms face a downward sloping demand curve. If product differentiation by one firm can produce brand loyalty, then the demand for the product of that firm will be relatively price inelastic. This will give the individual firm more power over price. To generate brand loyalty, the firm may focus on advertising. This is very common in markets operating under monopolistic competition. It can be argued that any supernormal profits which are generated would be better used in investment into the factors of production rather than on persuasive advertising. The ease of entry may mean that the typical firm in the market is not fully exploiting the possible economies of scale. It may be operating with spare capacity. As well as evaluating the advantages and disadvantages, candidates may also consider the extent to which such market

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance								
			<i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of how monopolistic competition affects consumers. Limited or no analysis of how monopolistic competition affects consumers. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of how monopolistic competition affects consumers in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)		conditions exist in the real world, thus considering the realism of the model as flagged by the stem of the question.
Descriptor	Award mark												
Consistently meets the criteria for this level	At top of level												
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)												
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)												

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			On the borderline of this level and the one below At bottom of level		
			Total	25	

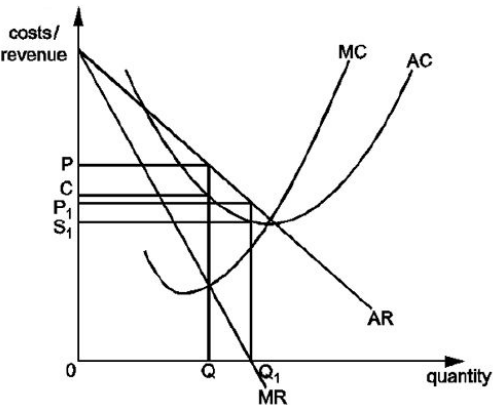
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
14	a		Up to four marks: One mark for recognising it was more concentrated. One mark for explaining this is because the three firm market concentration ratio was higher/three largest firms account for greater % share of total sales. One mark for supporting evidence on the cement market. One mark for supporting evidence on the ready-mix concrete industry.	4 (AO1 x 2) (AO2 x 2)	Supporting evidence: - three firm market concentration ratio in cement was 78.95% (6m/7.6m). Accept 79% - three firm market concentration ratio in ready-mix concrete was 54% (19% + 18% + 17%).
	b		Level 3 (9–12 marks) Good knowledge and understanding of collusion in an oligopolistic market. Strong analysis of the reasons why collusion occurred in the cement market. Strong evaluation including a supported judgement on the extent to which collusion occurred in the cement market. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i> Level 2 (5–8 marks) Good knowledge and understanding of collusion in an oligopolistic market. Good analysis of the reasons why collusion occurred in the cement market. Reasonable evaluation of the extent to which collusion occurred in the cement without considering the extent. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 1 (1–4 marks) Reasonable knowledge and understanding	12 (AO1 x 1) (AO2 x 1) (AO3 x 5) (AO4 x 5)	<i>Indicative content</i> Reasons why the chances of collusion might have been high: - small number of dominant firms so it is an oligopolistic market and collusion is relatively common in an oligopoly - the product produced by the different firms is very similar/virtually homogeneous, so firms face similar cost conditions. This makes it easier to agree on a price that will benefit all of the firms - firms know a considerable amount about each other and so know whether they can trust each other and what would be the appropriate strategies to follow - there are significant barriers to entry and exit so any arrangements are less likely to be undermined by the entry of new firms - collusion can be used to drive out smaller rivals by e.g. predatory pricing. Reasons why chances of collusion might not have been so high: - a firm with a large market share may seek to gain a competitive advantage by breaking/not agreeing to a collusive agreement - the entry of a new firm into the market

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			of collusion. Reasonable analysis of the reasons why collusion occurred in the cement market. Limited or no evaluation of the extent to which collusion occurred in the cement market. <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.		may threaten collusive agreements/make collusive agreements less likely • collusion carries the risk of investigation and possible penalties/requirement to sell off assets. Credit, where appropriate, knowledge/analysis of other, relevant factors. Possible routes into evaluation: • the information suggests that the conditions needed for collusion are mostly met • the outcome will be influenced by the future number of firms in the industry/actions of the OFT and Competition Commission. Other information would be useful, e.g. what are the objectives of the firms/are there any reasons why their cost conditions may change in the future.
			Total	16	

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
15	Level 5 (21–25 marks) Good knowledge and understanding of monopoly in the context of moving from profit maximisation to sales revenue maximisation. Strong analysis of the effect on consumers of a monopolist changing objectives. A relevant and accurately labelled diagram is provided and is linked to the analysis. Strong evaluation of both why consumers may or may not benefit with a supported judgement being made as to the extent to which consumers might benefit. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of monopoly in the context of moving from profit maximisation to sales revenue maximisation. Strong analysis of the effect on consumers of a monopolist changing objectives. A relevant and accurately labelled diagram is provided and is linked to the analysis. Good evaluation of both why consumers may or may not benefit but without a judgement being made as to the extent to which consumers might benefit. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of monopoly in the context of moving from profit maximisation to sales revenue maximisation.	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	<i>Indicative content:</i>  Profit maximisation means producing where $MC = MR$ whereas sales revenue maximisation means producing where MR is zero. Reasons why it may benefit consumers: • as shown in the diagram, the change in the objective is likely to mean that the quantity sold will increase and the price will fall. Lower price will increase consumer surplus • increasing the quantity sold will be likely to increase firms' output. Higher output will enable a firm to take greater advantage of economies of scale. This would lower average costs and may lead to even lower prices in the future. Reasons why it may not benefit consumers: • supernormal profits are likely to fall. This may reduce investment and innovation which may reduce the quality of products produced • charging a lower price may make it more difficult for new firms to enter the industry. New firms are likely to have higher costs and so may not be able to compete against a firm charging lower prices. Keeping firms out of the industry will reduce the potential choice facing consumers.

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	Good analysis of the effect on consumers of a monopolist changing objectives. A relevant diagram is provided and is linked to the analysis. Some evaluation of both why consumers may or may not benefit but without a judgement being made as to the extent to which consumers might benefit. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of monopoly in the context of profit maximisation and/or sales revenue maximisation. Some analysis of the effect on consumers of a monopolist changing objectives. A relevant diagram is provided, which is less than perfect. Some evaluation of both why consumers may or may not benefit but without a judgement being made as to the extent to which consumers might benefit. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Some knowledge and understanding of monopoly or profit maximisation or sales revenue maximisation. Limited analysis of the effect on consumers of a monopolist changing objectives. The diagram may not be relevant, may be inaccurate or may be missing. Limited or no evaluation. <i>Information presented is basic and may be</i>		Credit, where appropriate, knowledge/analysis of other, relevant factors. Possible routes into evaluation: • changing the objective is likely to benefit consumers in the short run but not necessarily in the long run • it might also not benefit consumers as much as, for example, producing where $MC = AR$ (allocative efficiency) • the impact on consumers will be influenced by the price elasticity of demand of the product.

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			<i>ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit.		
			Total	25	
16			C	1 (AO1)	Rationale A If firms are X-inefficient they are producing above the lowest attainable average cost, meaning they are not producing at the lowest possible cost and therefore are not statically efficient. B If firms are not producing at the MES they are not producing at the lowest possible cost. C Correct: Firms are producing at the lowest possible cost allocating resources in a way that maximises welfare. D Firms must be allocatively efficient to be statically efficient as resources must be allocated in a way that means the value consumers place on the last unit of output is equal to the cost to firms of producing it ($P = MC$).
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
17			A	1 (AO1)	Rationale A Correct: There is under-consumption so too few scarce resources are being allocated to this product. B The externalities model does not demonstrate the extent to which firms are appropriately considering long run concerns. C Just because it would be optimal for production to increase in terms of maximizing consumer welfare, this does not necessarily mean firms are producing at a point above average costs presently. D The diagram does not show us the costs of an individual firm.
			Total	1	
18			A	1 (AO3)	Rationale A Correct: the area of consumer surplus that remained in the standard monopoly case is now transferred to the producer as producer surplus. B This is consumer surplus under perfect competition. Some of this is already lost in the monopoly case before price discrimination occurs. C This is the deadweight loss that arises in the monopoly case. When the monopolist starts to price discriminate this becomes producer surplus. D This is producer surplus both before and after price discrimination.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
19			D	1 (AO2)	Rationale A The demand curve is not perfectly elastic in monopolistic competition as goods are not homogenous. B The demand curve is not perfectly elastic in monopolistic competition as goods are not homogenous. C Firms in perfect competition cannot make supernormal profits in the long run. D Correct: the perfectly elastic demand curve indicates perfect competition and firms can only make supernormal profit in this model in the short run.
			Total	1	
20			C	1 (AO1)	Rationale A This assumption is the same in both monopoly and oligopoly. B This assumption is the same in both monopoly and oligopoly. C Correct: in monopoly there is only one dominant firm. D This assumption is the same in both monopoly and oligopoly.
			Total	1	
21			A	1 (AO1)	Rationale A Correct: Dynamic efficiency ensures there is sufficient investment to enable efficiency to be achieved in the long term. B This is allocative efficiency. C This is productive efficiency. D This is X-efficiency.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
22			C	1 (AO3)	Rationale A t is to the left of the intersection of MC and AC and therefore not productively efficient. B rpst = profit ie revenue minus cost. C Correct: x is the point where PED = 1 since at w MR = 0 and s is to the left of x so elastic. D Identifying area of total cost only.
			Total	1	
23			D	1 (AO2)	Rationale A Firms are too small to be able to be productively or allocatively efficient B In the natural monopoly case firms are unlikely to be operating productively efficiently as average costs are falling until a very large level of output C In this case a firm would be charging a price above the allocatively efficient price and will be producing beyond the productively efficient level of output D Correct: in a perfectly contestable market the threat of entry forces firms to behave productively and allocatively efficiently.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
24			D	1 (AO3)	Rationale A This will be the outcome if collusion is successful, where firms' joint welfare is maximised. B This may be a short run outcome in which firm Z chooses to break the collusive agreement before firm Y responds. C This may be a short run outcome in which firm Y chooses to break the collusive agreement before firm Z responds. D Correct: If collusion breaks down then both firms will revert to the Nash equilibrium, pricing low in order to avoid being outcompeted.
			Total	1	
25			D	1 (AO3)	Rationale A This is most likely to occur in an oligopoly market and will cause allocative inefficiency. B This is unlikely to achieve allocative efficiency because in a natural monopoly it is more efficient to have just one firm in the market to avoid the wasteful duplication of resources. C This could lead to allocative efficiency when there is market failure caused by information failure. D Correct: If the government allows one firm to operate in the market but regulates it by, for example, setting pricing rules, the benefits of economies of scale can be enjoyed without firms using their monopoly power to exploit consumers.
			Total	1	

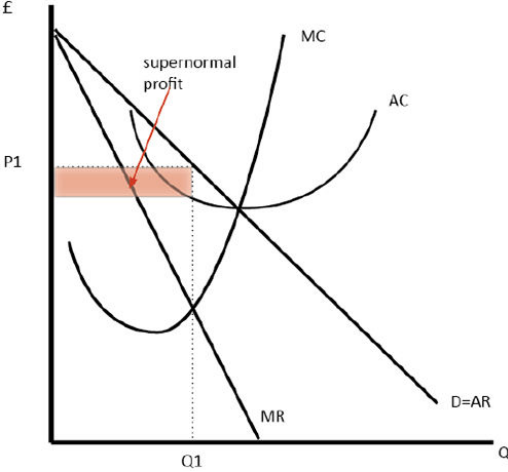
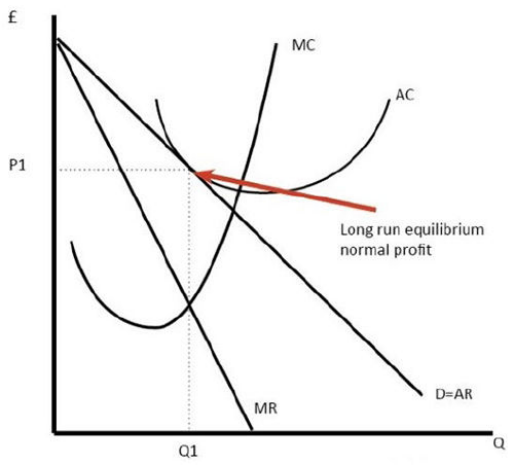
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
26			C	1 (AO1)	Rationale A X-efficiency will also occur as firms would be driven out of the market if they were not operating on their lowest attainable average cost curve. Firms will not be dynamically efficient as they will not have the supernormal profit to invest in research & development. B Firms will not be dynamically efficient as they will not have the supernormal profit to invest in research & development. C Correct: Firms will produce at the minimum efficient scale, price equal to marginal cost and be operating on their lowest attainable average cost curve. D Firms will not be dynamically efficient as they will not have the supernormal profit to invest in research & development.
			Total	1	
27			C	1 (AO2)	Rationale A Incorrectly includes 'Others' as one of the 3 firms: $33.2 + 37.6 + 18.8 - 24.8 - 32.9 - 31.3 =$ decreased by 0.6%. B This explains what has happened to the 4 firm concentration ratio: $33.2 + 37.6 + 2.4 - 24.8 - 10.6 - 0.4 - 31.3 =$ decreased by 6.1%. C Correct: 3 firm concentration ratio in 2010 = $37.6 + 33.2 + 2.4 = 73.2\%$. 3 firm concentration ratio in 2019 = $31.3 + 24.8 + 10.6 = 66.7\%$. 3 firm concentration ratio has decreased by $73.2 - 66.7 = 6.5\%$. D Uses the same 3 firms in 2019 as in 2010: $33.2 + 37.6 + 2.4 - 24.8 - 0.4 - 31.3 =$ decreased by 16.7%.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
28			Calculate the five-firm concentration ratio in the UK energy supplier market. The five largest firms have a market share of 20%, 14%, 13%, 11% & 10% (1) Five-firm concentration ratio = 68% (1)	2 (AO2*2)	Annotate with  Award 2 marks for an answer of 68% (with or without working) Award 1 mark for: - the five largest firms being identified (including by name) or - understanding of the five-firm concentration ratio, e.g. the market share of the five largest firms - answer of 68 (without %) - answer of 0.68
			Total	2	

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
29	In recent years, most towns and cities have seen a rapid growth in the number of coffee shops and sandwich bars, the majority of which are small and locally-owned. Evaluate, using an appropriate diagram(s), whether such small firms, operating in a monopolistically competitive market, can be economically efficient. Level 5 (21–25 marks) Good – Strong knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail firms. Strong analysis of how a monopolistically competitive market may be economically efficient. It will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of whether a monopolistically competitive firm will be economically efficient considering extent and how this may be affected and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail firms.	25 (AO1 x 6 AO2 x 6 AO3 x 6 AO4 x 7)	For a mark at the top of each level the response should be in context. Monopolistic competition is a market structure which combines elements of monopoly and competitive markets. A monopolistic competitive market is one with freedom of entry and exit, but firms can differentiate their products. Therefore, they have the ability to set their own prices.  However, because there is freedom of entry, supernormal profits will encourage more firms to enter the market leading to normal profits in the long term.  But is this economically efficient? Allocative efficiency - this requires $P=MC$.

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	Strong analysis of how a monopolistically competitive market may be economically efficient. It will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail firms. Good analysis of how a monopolistically competitive market may be economically efficient. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of the link between monopolistic competition and efficiency without considering extent and alternatives. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Level 2 (6–10 marks) Good knowledge and understanding of a monopolistically competitive market and efficiency in the context of small retail		As can be seen in the diagram this is not the case in either the short-run or long-run. Productive efficiency – this occurs where AC is at a minimum. Firms in a monopolistically competitive market will operate to the left of the minimum point on the AC schedule. Dynamic efficiency – the fact that firms will, at least, be making normal profit means that they will have some finance available to invest in new products and improvements to customer service (although not to the levels seen in many oligopolistic or highly monopolistic markets.) X-efficiency – unlike monopoly, firms will face competition which will encourage them to cut costs and improve the quality of their output. On balance, it may be argued that this sort of market is not economically efficient. The level of product differentiation is damaging society's total welfare by allowing firms to keep their downward sloping demand curves. However, what about the choice this provides for consumers? Given the preponderance of large (multi-national) firms in the market, such as Starbucks, Coca-Cola (Costa) and Subway, the smaller/local firms must be providing something which customers want (which is presumably not price). If the market was a monopoly or perfectly competitive, it would not be providing this level of choice. In the latter case, no firm would have enough funds for research & development and in the former, why would the monopoly bother? Accept suggestions that the coffee/sandwich shop market is actually closer to perfect competition (or a contestable market), given its limited entry/exit barriers, low sunk costs, limited supernormal profits and lack of brand

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			firms. Reasonable analysis of how a monopolistically competitive market may be economically efficient. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation of the link between monopolistic competition and efficiency without considering extent and alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of a monopolistically competitive market or efficiency. Limited or no analysis of how a monopolistically competitive market may be economically efficient. It There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of the impact of competition on efficiency in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit.		loyalty for what is, in principle, an homogenous product (coffee, sandwich, cake etc.) Therefore, firms in this market (especially those not owned by large corporations) may be operating potentially closer to allocative and productive efficiency than the standard monopolistic market model would suggest. Ultimately, there is a trade off in a monopolistically competitive market between static inefficiencies and possible dynamic efficiencies. Firms have an incentive to innovate (e.g. flavours of drinks, types of sandwich) in the face of powerful multinational brands. It is a question of whether the benefits to society from this innovation and degree of choice/convenience are worth the cost of the supernormal profits in the short-run and lack of allocative and productive efficiency.

Mark Scheme

Question			Answer/Indicative content		Marks	Guidance
			Descriptor	Award mark		
			Consistently meets the criteria for this level	At top of level		
			Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)		
			Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)		
			On the borderline of this level and the one below	At bottom of level		
			Total		25	