AQA A-LEVEL ECONOMICS · 7136

ECONOMICS



EXAM QUESTION PACK

3.1.4 PRODUCTION, COSTS AND REVENUE

SCORE	PERCENTAGE
/933	%

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1. Define 'profit' **Extract B** (line 9).

[3 marks]

2. **Extract B** (lines 12–14) states that 'The Universal Postal Service obligations require Royal Mail to deliver letters and parcels to all parts of the country six days a week'.

With the help of a monopoly diagram, explain how the Universal Postal Service obligations are likely to affect Royal Mail's costs **and** profits.

[9 marks]

3. **Extract C** (line 2) states that 'Many competitors are using digital technology to drive innovation'.

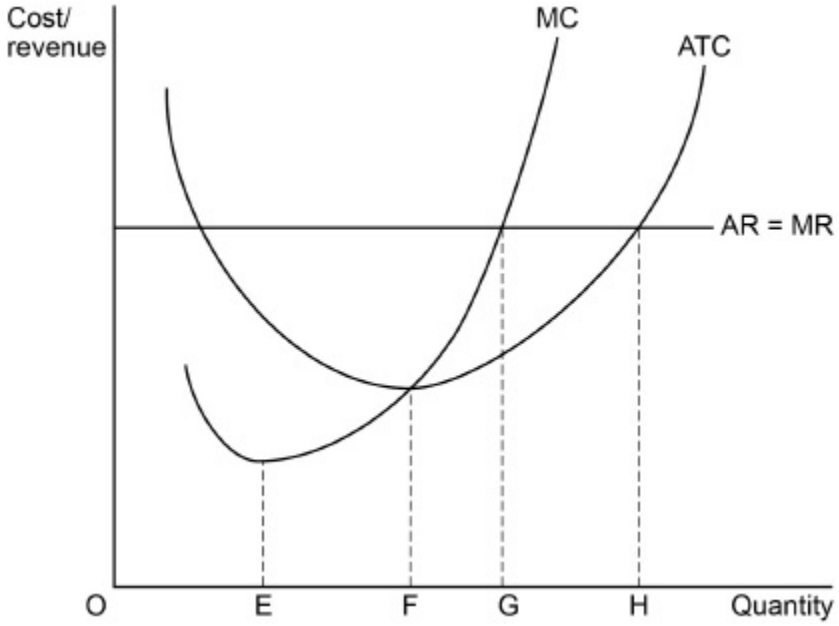
Use the extracts and your knowledge of economics to assess whether the benefits outweigh the costs when the Government privatises organisations such as Royal Mail and opens up the market to competition.

[25 marks]

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4. The diagram below shows a firm operating in perfect competition in the short run.

Which quantity, **OE**, **OF**, **OG** or **OH**, indicates the output where profits are maximised?



A OE ⬭

B OF ⬭

C OG ⬭

D OH ⬭

[1 mark]

5. The UK's labour productivity increases by only 10% over a five-year period. Over the same period its main trading partners increase their productivity by 25%. All other things being equal, the most likely consequence for the UK is

A a decline in UK imports from its main trading partners. ⬭

B a 15% deterioration in its balance of trade on the current account. ⬭

C a loss of competitiveness against its main trading partners. ⬭

D the imposition of a 15% tariff on imports to maintain international competitiveness. ⬭

[1 mark]

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6. A firm benefits from significant and persistent economies of scale as it increases output. Which one of the following is the most likely consequence as it grows in size?

The firm's

A ability to set its own prices will increase. ⬭

B long-run average cost curve will become 'U' shaped. ⬭

C increasing profitability will attract many new entrants. ⬭

D total cost of production will decrease. ⬭

[1 mark]

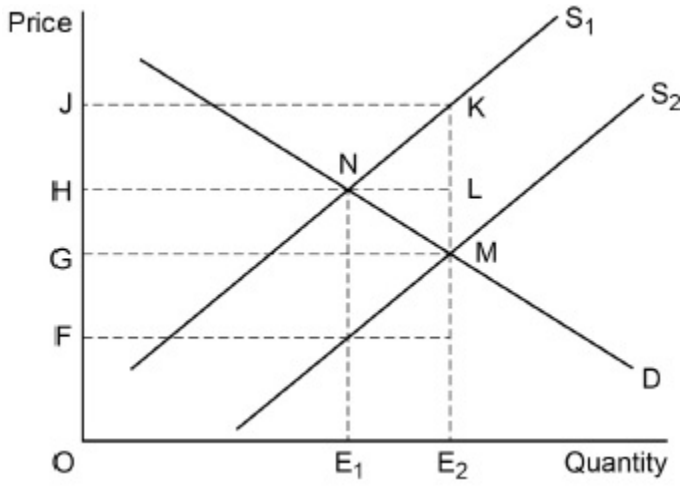
7. **Extract C** (lines 10–11) states that 'There is ample opportunity for new players to enter the sector.'

With the help of a diagram, explain how the lowering of barriers to entry in the banking market might lead to lower prices and a situation in which banks make normal profit.

[9 marks]

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8. The diagram below shows the demand curve (D) and two supply curves (S_1 and S_2) in the market for renewable energy.



The renewable energy market is initially in equilibrium at a price of OH. The government then introduces a subsidy for renewable energy.

After the introduction of the subsidy, the total amount of money received by the producers from both consumers and the government is

A $OGME_2$ ⬭

B $OHLE_2$ ⬭

C $OHNME_2$ ⬭

D $OJKE_2$ ⬭

[1 mark]

9. In the United States, corporate profits since 2010 have averaged 9% of GDP, compared to 5% in the 1990s. This is causing concern that the US economy is increasingly dominated by companies with monopoly power.

Explain the role of profit in a market economy.

[15 marks]

10. **Extract E** (lines 10–11) describes the British railway sector as a 'natural monopoly', which was split up into 'no less than 100 pieces' when it was privatised.

With the help of a diagram, explain why breaking up a natural monopoly in rail may affect long-run average costs.

[9 marks]

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11. Several loss-making retailers including Homebase, House of Fraser and Poundworld have had to decide whether to shut down operations or carry on while making losses. In contrast, the music-streaming firm Spotify was valued at $27 billion in 2018, despite never having made a profit in any year since it was founded. Spotify has been more focused on expanding market share.

Discuss the validity of the traditional economic assumption that the main objective of firms is to maximise profits.

[25 marks]

12. Several loss-making retailers including Homebase, House of Fraser and Poundworld have had to decide whether to shut down operations or carry on while making losses. In contrast, the music-streaming firm Spotify was valued at $27 billion in 2018, despite never having made a profit in any year since it was founded. Spotify has been more focused on expanding market share.

Explain the factors a profit-maximising firm will take into account when deciding whether to shut down or to carry on operating, both in the short run and in the long run.

[15 marks]

13. A monopolistically competitive firm's demand curve for good X has a price elasticity of demand of minus 1.0 throughout its entire range. All other things being equal, which one of the following is most likely to result in an increase in the firm's profits?

A A decrease in the cost of producing the good ⬭

B A decrease in the price of the good ⬭

C An increase in the price of the good ⬭

D An increase in the scale of its operation ⬭

[1 mark]

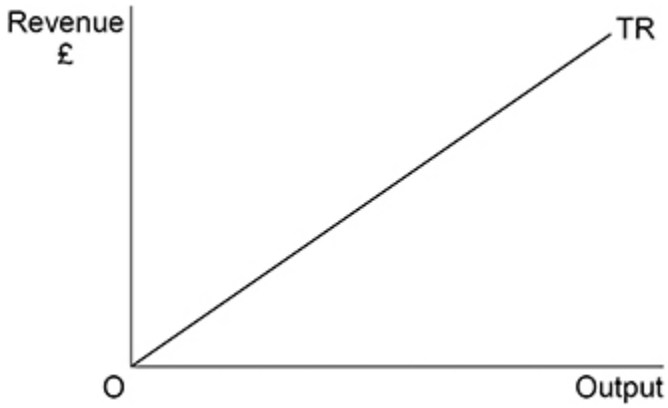
14. **Extract B** (line 18) states that the global trade in sand has been 'made possible by cheaper transportation'.

With the help of a diagram, explain how cheaper transportation **and** a construction boom in East Asia have led to growth in the market for sand.

[9 marks]

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15. The graph shows a firm's total revenue (TR) curve.



Which one of the following combinations, **A**, **B**, **C** or **D**, describes how the firm's average revenue and marginal revenue will change as the firm expands its output?

	Average revenue	Marginal revenue	
A	Increases	Increases	⬭
B	Constant	Constant	⬭
C	Decreases	Decreases	⬭
D	Increases	Constant	⬭

[1 mark]

16. All other things being equal, which one of the following is the most likely consequence of technological innovation in the production process by the firms within an industry?

A A decrease in the number of firms in the industry ⬭

B A reduction in firms' unit costs of production ⬭

C The elimination of entry barriers into the industry ⬭

D The invention of a product that did not previously exist ⬭

[1 mark]

17. Price comparison websites were used to purchase 53% of car insurance policies in 2017, improving competition and reducing prices for consumers. In other sectors, dominant firms such as Amazon have used innovation to capture market share. In the UK, 70% of online consumers say that Amazon is the first online retailer they visit when buying goods.

Explain how perfect competition should lead to outcomes which are **both** productively and allocatively efficient.

[15 marks]

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18. Price comparison websites were used to purchase 53% of car insurance policies in 2017, improving competition and reducing prices for consumers. In other sectors, dominant firms such as Amazon have used innovation to capture market share. In the UK, 70% of online consumers say that Amazon is the first online retailer they visit when buying goods.

Evaluate the view that technological change tends to bring industries closer to the market structure of perfect competition.

[25 marks]

19. Using the data in **Extract A** (Figure 1), calculate the mean amount of profit that pharmaceutical companies would have made on a new drug in 2019, given that the average development cost was $2.6bn. Give your answer to the **nearest million dollars**.

[2 marks]

20. **Extract C** (lines 1–3) states: 'The market for most generic drugs is oligopolistic, with just two or three manufacturers making each product. This enables significant economies of scale within firms, but also presents the risk of consumer interests being harmed.'

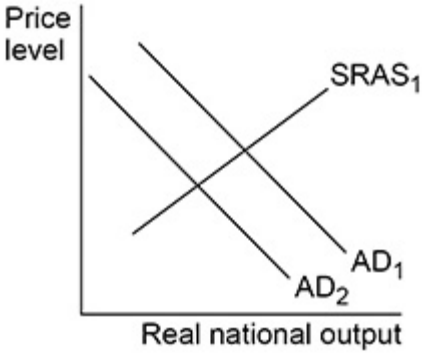
Using the extracts and your knowledge of economics, assess the view that the market structure of the pharmaceutical industry is damaging for consumers.

[25 marks]

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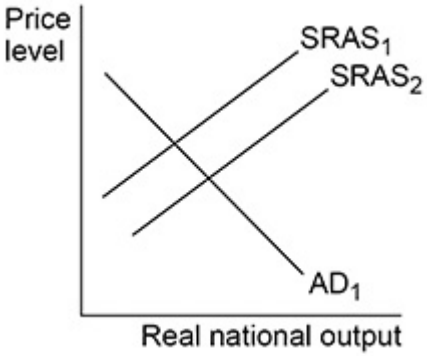
21. Which one of the following diagrams, **A**, **B**, **C** or **D**, shows the most likely short-run impact on an economy of an improvement in technology in the production process?

A



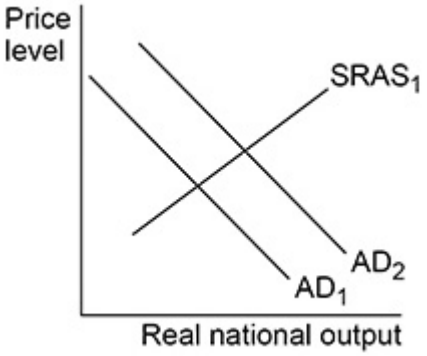
○

B



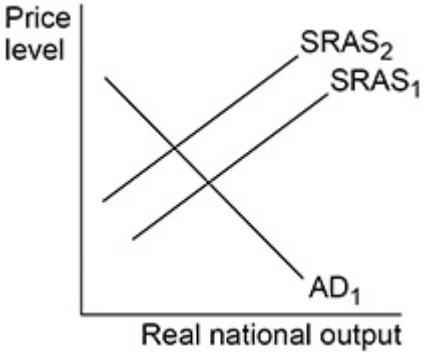
○

C



○

D



○

[1 mark]

22. Explain the factors that a commercial aircraft manufacturer, such as Boeing or Airbus, should consider when forecasting the future sales of its aircraft.

[15 marks]

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23. There is a reduction in the market demand for the product supplied by firms operating in a perfectly competitive industry.

All other things being equal, which one of the following will happen to firms' average and marginal revenue as a result of this change?

A Average revenue and marginal revenue will both fall. ⬭

B Average revenue and marginal revenue will not change. ⬭

C Average revenue will fall and marginal revenue will increase. ⬭

D Average revenue will increase and marginal revenue will fall. ⬭

[1 mark]

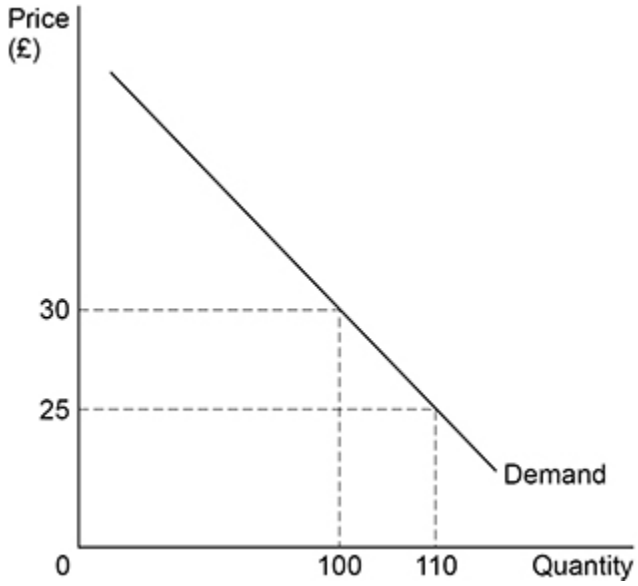
24. **Extract B** (lines 16–18) states that, 'Gig economy defenders claim that today's flexible labour markets offer modern workers the opportunity to move freely between jobs and this gives them more choice over their working hours.'

Assess the view that government intervention in the UK labour market is necessary to protect the interests of people who are working in the gig economy.

[25 marks]

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25. The diagram below shows the demand curve for a firm's scarves.



Which one of the following statements is true when the price of scarves is reduced from £30 to £25?

A Demand for scarves is price elastic. ⬭

B Price elasticity of demand is –0.5. ⬭

C The firm's total revenue falls. ⬭

D The firm's total revenue increases. ⬭

[1 mark]

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1.

Thirty years ago the computer market was dominated by one huge monopoly called IBM (International Business Machines). Today, most people have never even heard of IBM. Newer companies such as Microsoft, Apple and Google have grown rapidly to become very competitive giants.

Evaluate the view that competition policy is never necessary because, in the long run, market forces will ensure that monopolies cannot abuse their power and will not last.

[25 marks]

2.

'Although monopolies are generally regarded by economists as undesirable, legallybacked monopolies created by IPRs can be justified as being in the public interest' (**The Global Context Extract C**, lines 12 −14).

Evaluate the case for stronger action by governments to protect the monopoly power of firms involved in UK creative industries.

[25 marks]

3.

'It is significant that some large UK retailers such as Tesco and Marks and Spencer have a presence on the Continent... there are also some possible advantages of the SEM for smaller retailers' (**The European Union Context Extract D**, lines 34–35 and 41–42).

Using the data and your economic knowledge, assess the **costs** and **benefits** to British retailers **and** consumers of being part of a single market across the EU.

[25 marks]

4.

It is 'difficult to judge whether GM crops will boost productivity to feed the world and create social benefits or cause market failure through monopoly, environmental damage and adverse side effects on human health' (**The Global Context Extract B**, line 38–40).

Using the data and your economic knowledge, evaluate the view that the UK Government should support the production and use of GM crops.

[25 marks]

5.

Explain what is meant by 'diminishing returns' (**The Global Context Extract B**, line 2–3) **and** analyse why the introduction of GM crops could help farmers to increase their productivity in the long run.

[9 marks]

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6. THE GLOBAL CONTEXT

Extract B: Diminishing returns and food production

The British political economist Thomas Malthus (1766-1834) argued that because cultivatable land is in fixed supply, food production is subject to the law of diminishing returns and cannot keep pace with population growth. Technological improvements and international trade have meant that his gloomy predictions of famine and drought have largely been avoided, certainly for industrialised countries like the UK. Now that the world has more than 6 billion people, predicted to rise to 9 billion by 2050, there is a worry once again that diminishing returns will set in. Some estimates suggest that the world's undernourished could soon number over a billion people.

Genetically modifi ed (GM) crops are seen by some experts as providing a way around the problem of diminishing returns. Supporters of GM technology claim that by developing crops that are resistant to disease, drought, salty soil and flooding, more land can be cultivated and existing farmland used more efficiently. The result is improved agricultural productivity. They also claim that private goods like rice and tomatoes can be turned into merit goods by being modifi ed to contain vaccines or cures for diseases.

Anti-GM groups have mounted high profile campaigns against what the media have called 'Frankenstein foods'. In response, the British frozen food chain Iceland decided that there was a competitive advantage in announcing that all of its products would aim to be GM-free and the major British supermarkets quickly followed. Meanwhile, the UK Government's official position is that it has an open mind, and that its priority is to protect human health and the environment while being 'pro-consumer choice'. In the USA, the 'choice' argument has been undermined by the view that foods containing GM products need not be labelled as such.

Can GM crops really guarantee 'food security'? Critics claim that a lack of spending power, not food supply, is the real problem, with poor people in failing economies often starving in front of full stores and granaries. They also claim that GM crops cause negative externalities. For instance, their pollen can contaminate the crops of nearby organic businesses. Also, most GM crops are developed for resistance to weed-killers and pesticides, and this encourages farmers to use more chemicals, killing wildlife and reducing biodiversity. Furthermore, there are fears that eating GM foods might have long-term risks to human health which have yet to be fully investigated.

Regulations in Europe are so strict that it costs a seed manufacturer at least ten times as much to develop a new GM crop than a conventional crop. This means that only big companies can afford to develop them. Globally, the American company Monsanto controls the seeds on over 80 per cent of the world area of planted GM crops. Furthermore, Monsanto bans 'seed saving'. It uses patent laws to sue farmers if they save seeds for planting, rather than buying new seeds every year.

Almost every single piece of evidence on each side of the debate is contested, making it difficult to judge whether GM crops will boost productivity to feed the world and create social benefits or cause market failure through monopoly, environmental damage and adverse side-effects on human health.

Source: news reports, 2008 / 9

7. ‘The law of diminishing returns is an economic principle which will definitely operate at some point, whereas economies of scale are less certain.’

Evaluate the view that firms will always try to minimise their costs and maximise their revenues.

[25 marks]

8. ‘The law of diminishing returns is an economic principle which will definitely operate at some point, whereas economies of scale are less certain.’

Explain how a firm’s costs of production may be affected by diminishing returns in the short run and economies of scale in the long run.

[15 marks]

9. ‘The European Union (EU) wishes to improve the mobility and flexibility of labour’ (**The European Union Context Extract F**, line 6).

Evaluate the possible **costs** and **benefits** for the UK economy of the free movement of labour within the EU.

[25 marks]

10. Many of the world’s large companies, such as *Microsoft* and *Ryanair*, started out as small businesses.

Explain the different ways in which a firm can grow in size.

[15 marks]

11. In recent years, the EU has decided that the agricultural sector must become ‘more responsive to market forces’ (**The European Union Context Extract F**, line 12).

Using the data and your economic knowledge, discuss whether UK farming would benefit from greater responsiveness to market forces and less intervention by the UK government and the EU.

[25 marks]

12. Explain the term ‘Barriers to entry’ (**The Global Context Extract B**, line 20) **and** analyse **two** ways in which technological change can affect entry into creative industries such as recorded music.

[9 marks]

13. **THE GLOBAL CONTEXT**

Extract C: The creative industries and intellectual property

The UK government regards the 'creative industries' as an important source of income and employment. This sector is defined as comprising 13 sub-sectors, including architecture, films, music, fashion, television and video games. The UK creative industries contribute nearly 8 % of annual Gross Domestic Product (roughly half the contribution of the manufacturing sector) and produce exports worth £10 bn (almost equal to oil industry exports). The creative sector is expected to grow at twice the rate of the rest of the economy between now and 2013.

The main distinguishing feature of a 'creative' industry is that it depends on intellectual property rights (IPRs). These include copyrights (e.g. for music, literature, art works and films), trademarks, patents, industrial design rights and trade secrets. In effect, IPRs enable creative people and businesses to enjoy a degree of monopoly power. This is strongest when IPRs are enforced throughout the world. Although monopolies are generally regarded by economists as undesirable, legally-backed monopolies created by IPRs can be justified as being in the public interest.

Source: news reports, 2008−9

14. 'A pharmaceutical company can expect to make supernormal profits on a new drug or medicine in the short run.'

Explain why some firms might be able to **continue** to make supernormal profits in the **long run.**

[15 marks]

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15. **THE GLOBAL CONTEXT**

Extract B: Technological change and the recorded music industry

Technological change presents both threats and opportunities to the global music industry. Around the world in 2008, 1.4 billion song tracks were legally downloaded to computers and paid for over the internet. However, an estimated 40 billion tracks (over 95% of music downloads) were obtained illegally. From the point of view of people sharing and using these tracks, new technology has changed recorded music into a form of public good.

To stay in business, record companies and retailers have to find ways of selling recorded music to people who do not want to pay because people expect everything on the internet to be free. Some politicians and industry representatives want to use the force of law to punish the people who download illegally, while some businesses, such as satellite broadcasters and computer games developers, appear to be using technology successfully in order to sell to paying customers and exclude 'free riders'. For example, *BSkyB* subscribers are sent a decoder card so they can access programmes.

While *iTunes* and others have had great success in selling downloads, CD sales are still important for on-line retailers like *Amazon*, traditional high street music stores such as *HMV* and *Virgin* and the large supermarkets. These sellers of music in physical format are taking on the new digital competition with aggressive pricing, persuasive TV advertising and differentiated products such as special edition CD box sets.

Many new and established artists have used the internet to their advantage. It is possible to record a song in a bedroom, place a clip on *YouTube* and go on to sell to a global market. Barriers to entry have changed and the music industry as a whole has to be creative to compete in new ways that build upon legal downloading and the on-line selling of CDs.

Source: news reports, 2008–9

16. 'Bigger is better.... Small is beautiful.... Size does not matter.'

Discuss whether large firms in the UK today are necessarily more efficient than small firms.

[25 marks]

17. 'Bigger is better.... Small is beautiful.... Size does not matter.'

Explain how a firm can experience diminishing returns in the short run **and** economies of scale in the long run.

[15 marks]

18. Explain why competition might lead to **both** productive efficiency **and** allocative efficiency.

[15 marks]

19. Explain what is meant by 'economies of scale' (**The European Union Context Extract D**, line 3) **and** analyse how **two** types of economy of scale could affect the fishing industry.

[9 marks]

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20. The UK government is considering building a high-speed train line (known as HS2) linking London with cities in the north. It is claimed that HS2 will enable significant reductions in journey times for passengers and goods.

Explain the likely short-run and long-run effects of investment in infrastructure projects such as HS2 on both labour **and** product markets in the UK.

[15 marks]

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21. THE EUROPEAN UNION CONTEXT

Extract D: Changing markets and EU policy: the case of Grimsby

Deep sea fishermen have been called the last of the hunter-gatherers. They chase a scarce natural resource which is not farmed or domesticated. While there is pressure to achieve economies of scale, large super-efficient factory ships are in danger of eradicating the very raw material upon which they rely. The market for fish operates efficiently in many ways, with buyers and sellers who have good knowledge of the product and of prices. However, at the European Union level, a great deal of time and money is spent on trying to reduce failures in this market for fish.

Marine scientists have said that, without government intervention, fish stocks will collapse completely by 2050 and that intervention is necessary to prevent various market failures. Sea fish are not a public good, although they tend to be treated as one largely due to a lack of property rights. For the past 30 years, the national fisheries of EU member states within Community waters have been governed by the Common Fisheries Policy (CFP). The CFP includes measures which are aimed at conservation by regulating the amount of fish taken from the sea, controlling the fishing methods that are used, and policies for matching supply and demand. Policies include quotas and restrictions on the times that boats can spend at sea. Trawler captains usually operate as small business entrepreneurs, often with expensive loans, and have costs to pay even when a boat is laid up in harbour. New boats cost about £25 million and EU licences can insist that, when taken out of service, the boats are destroyed. Ultimately, these boats have to be efficient enough to catch sufficient fish to earn a profit during the equivalent of only two months at sea each year.

The CFP has been widely criticised. For example, critics claim that quotas are wasteful since, if too many fish are caught, perfectly edible fish have to be dumped at sea rather than brought ashore. On the other hand, supporters of the CFP would argue that it gives hope of avoiding the collapse of stocks or even the complete extinction of some species.

In the 1950s, deep sea fishing was a multi-million pound business and Grimsby in North Lincolnshire was the largest fishing port in the world. Generations of families found employment in fishing and its related industries, such as food manufacture. The UK's first frozen 'fish finger' was produced in Grimsby in 1955. Demand in product markets leads directly to a derived demand in labour markets and the CFP has had a massive impact on towns such as Grimsby.

Nationally, fisheries represent well under one per cent of the UK economy. However, their effects on local and regional labour markets are much greater than this figure would suggest. Workers in the fishing industry tend to be immobile occupationally, in terms of their experience and skills, and geographically, in terms of where they are prepared to live and work.

In 1964, 22 000 fishermen were employed in the UK. This fell slowly to 21 000 in 1994 and then more rapidly to 12 000 by 2009. While fishing has been in decline for many years, Grimsby retains several major companies which produce some of the best known brands of fish and other frozen food products in the UK. Also, Grimsby still has the largest fish market in the UK, although most of what is sold is now transported to Grimsby by road from other ports or imported in container ships. New industries such as light engineering, chemicals and plastics have become important employers. Grimsby, like many other towns, relies heavily on retailing as a source of employment, together with tourism in the nearby resort of Cleethorpes.

Sources: news reports and industry information, 2010

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22.

THE EUROPEAN UNION CONTEXT

Extract F: The EU milk market

Over recent decades, the governments of most industrialised countries have intervened in their agricultural markets to offer support through subsidies and other measures. In Europe, agriculture employs less than 5% of the workforce, while agricultural intervention has traditionally taken about 50% of the EU budget.

Aimed at limiting state spending on the dairy sector, controlling milk production, and stabilising both milk prices and producer incomes, the EU introduced a milk quota system in 1984 as part of the Common Agricultural Policy (CAP). Milk quotas place a limit on the amount of milk that a farmer can sell every year without paying a 'levy' or penalty to the EU. The CAP has forced dairy farmers to work below capacity and even to dump milk, damaging the EU's reputation for economic efficiency.

The EU plans to end milk quotas in 2015 and wants agriculture to be less influenced by government intervention and more responsive to market forces. As quotas are removed, farms might be expected to become fewer, larger and more intensive. In Spain, for example, the industry has been allowed three times as much milk output since 1993, while the number of dairy farms has fallen drastically and productivity has risen. Meanwhile, like the UK government, the Spanish government has intervened to try to negotiate new pricing contracts between farmers, food processors and retailers. There is always a risk that government intervention in such negotiations in any market can adversely affect efficiency.

Sources: news reports and government information, 2012

23.

Small, independent coffee shops face competition from large multinational companies with well-promoted brands. In the High Street of a major British city, one such independent business advertises in the following way:

'Cappuccino or Pot of Tea: £1.19 before 12 noon; £1.39 during lunch time (12 − 2.30 pm); and only 99p after 2.30 pm.'

Economists sometimes analyse small and large businesses through a 'structure, conduct, performance model' and consider such issues as a 'divorce' of ownership from control.

Discuss ways in which the size of firms and the structure of the coffee-shop market might affect the conduct **and** performance of the firms within it.

[25 marks]

24.

Thirty years ago the computer market was dominated by one huge monopoly called IBM (International Business Machines). Today, most people have never even heard of IBM. Newer companies such as Microsoft, Apple and Google have grown rapidly to become very competitive giants.

Explain the main sources of monopoly power.

[15 marks]

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25. Small, independent coffee shops face competition from large multinational companies with well-promoted brands. In the High Street of a major British city, one such independent business advertises in the following way:

‘Cappuccino or Pot of Tea: £1.19 before 12 noon; £1.39 during lunch time (12 − 2.30 pm); and only 99p after 2.30 pm.’

Explain how such a pricing strategy is influenced by price elasticities of demand, revenues and costs.

[15 marks]

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1. ‘The UK government would be happy with state control of British railways “as long as it’s not the British state”’ (**Extract C**, lines 19 – 21).

Evaluate, using the data and your knowledge of economics, the case for and against the UK government privatising public services while allowing foreign ownership of these services.

[25 marks]

2. Critically assess the proposition that perfect competition will always result in an efficient allocation of resources, no matter what good or service is being produced and consumed.

[25 marks]

3. A firm hires 20 workers at £10 per hour but in order to recruit another worker has to pay £11 per hour. All workers must now be paid the new wage rate. What is the marginal cost of the 21st worker?

A £10 ⬭

B £11 ⬭

C £21 ⬭

D £31 ⬭

[1 mark]

4. Explain what is meant by ‘supernormal profits’ (**The Global Context Extract B**, line 21) and analyse the likely effects on an electricity company of a one-off windfall tax that would take a percentage of its supernormal profits.

[9 marks]

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5.

THE GLOBAL CONTEXT

Extract B: The Big Six

The UK electricity industry used to be a nationalised state monopoly. In the 1980s, a process of privatisation of utilities began with the stated aims of increasing competition, efficiency and investment. Now, in theory, competing generating companies produce electricity and sell it wholesale to competing supply companies to sell retail to final customers. In practice, the markets have become dominated by six large-scale multinationals (the Big Six). There are about ten smaller firms which are mainly involved on the retail side but some have generating capacity, such as wind farms.

There is evidence that, while the wholesale costs of generating electricity differ quite considerably, retail prices charged to customers all end up being very similar. Critics say that the market is not working efficiently for various reasons, including insufficient separation between generating and selling electricity. The main concern of the regulator, Ofgem, has been to promote consumer choice. It has therefore encouraged consumers to consider switching suppliers. Prime Minister, David Cameron, has suggested that customers should shop around as they would when buying groceries from supermarkets. The generators are now charging prices which have given profit margins of between 8 and 32 per cent, while the retailing divisions have profit margins of 5 or 6 per cent.

For comparison, supermarkets can operate on profit margins as low as 2 or 3 per cent. The electricity companies claim that they have to make high profits in order to invest. Critics argue that supermarkets also have to invest, and are more genuinely competitive.

In 1997, the Labour Government announced a one-off windfall tax on the privatised utilities, which took a percentage of their supernormal profits (also referred to as 'abnormal' or 'excess' profits). This was done to put right the bad deal customers and taxpayers were alleged to have got from privatisation. In 2013, when Leader of the Opposition, Ed Miliband, announced a possible future government policy of freezing energy prices for 20 months, the companies claimed this would hit investment in much needed new generating capacity.

Source News reports, 2013

6. A firm produces 10 units of output per week and, at this level of output, its costs are as follows:

Marginal cost	Average variable cost	Average total cost
£50	£35	£40

The firm's total fixed costs are

A £5. ⬭

B £10. ⬭

C £15. ⬭

D £50. ⬭

[1 mark]

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7. The law of diminishing returns is an economic principle which will inevitably affect firms in the short run, whereas it is not always possible for firms to achieve economies of scale.

Explain how a firm's costs of production are affected by the law of diminishing returns in the short run and how they may be affected by economies of scale in the long run.

[15 marks]

8. Taking into account the news report, **Brazil: The Hot 'BRIC' Extract D** and the original evidence, do you recommend that the company should invest in Brazil? Justify your recommendation.

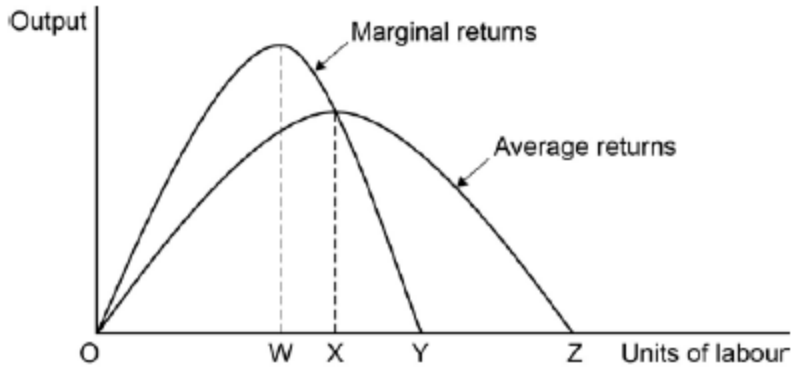
[25 marks]

9. The law of diminishing returns is an economic principle which will inevitably affect firms in the short run, whereas it is not always possible for firms to achieve economies of scale.

Evaluate the view that firms will always try to minimise their costs and maximise their revenues.

[25 marks]

10. The diagram below illustrates the short-run effect on output of increasing the amount of labour employed in combination with a fixed factor of production.



At which level of employment will the total output of the firm be at its maximum?

A OW ⬭

B OX ⬭

C OY ⬭

D OZ ⬭

[1 mark]

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11. Which one of the following is a true statement about average fixed costs?
Average fixed costs

A do not change as output changes. ⬭

B fall as output increases. ⬭

C include rent and raw materials. ⬭

D equal total costs minus total variable costs. ⬭

[1 mark]

12. **International trade Extract C** (lines 10−11) suggests that 'Increased protectionism could be damaging as the UK is placing much of its hopes for export success on the growing Chinese market.'

Using the data in the extracts and your economic knowledge, evaluate the view that the use of protectionism is inevitably damaging to economies.

[25 marks]

13. 'In the real world of business, two observations can consistently be made. Firstly, sooner or later, the law of diminishing returns will operate; and secondly, over time, profit maximising is always a key goal.'

Evaluate the view that, for all firms, whether small or large, in the long run, profit maximisation is always more important than any other business objective.

[25 marks]

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14. **International trade**

Extract C: China and Europe risk trade war

China this week responded to EU anti-dumping tariffs on solar panels with a levy on European wine. However, by attacking wine producers, Beijing has potentially turned a straightforward dispute over state subsidies between Germany and China into a full-blown European trade war.

France has effectively been targeted in retaliation for a levy designed to protect German manufacturers in what appears to be a deliberate attempt to increase tensions within the EU. In doing so, experts said that China, which is relatively new to the politics of global trade, has demonstrated smart tactics.

The danger is that China may decide to target other seemingly innocent parties if the row escalates, and that might mean the UK. Increased protectionism could be damaging as the UK is placing much of its hope for export success on the growing Chinese market.

In the last five years, UK goods exports to China have virtually doubled to £15.9bn and, three years ago, David Cameron set a $30bn (£20bn) target by 2015 as part of a bilateral deal with Beijing. Including Hong Kong, China is now the UK's fifth largest net trading partner.

However, China's influence in the UK stretches wider. At the end of 2011, foreign direct investment into the UK from China totalled £1.3bn, the second largest in the EU after Germany. In the last six months alone, China's telecoms giant Huawei has announced plans to invest £1.3bn in a new plant while ABP (a large Chinese investment group), plans to spend £1bn developing the Royal Albert Dock in London.

The Government also hopes to attract Chinese money to invest in UK infrastructure as part of George Osborne's 'Plan for Growth'. In other words, China is a key part of the Government's economic recovery plan.

Source: ©Telegraph Media Group Ltd 2013

15. Apple sells iPhones and iPads at considerably lower prices in the USA than in the UK market, but sources the products from the same factories in the Far East.

Discuss the view that price discrimination only benefits suppliers, such as Apple.

[25 marks]

16. 'In the middle of the twentieth century, the UK had more than 20 large car producing companies, and countless small, local manufacturers, many of which also produced motorbikes and pedal cycles. Now there is no single car producer that is purely 'British' and, globally, there are probably fewer than 20 significant car producers in the world.'

Evaluate whether growing market concentration and monopoly power, in an industry such as motor manufacturing, are necessarily undesirable.

[25 marks]

17. 'In the real world of business, two observations can consistently be made. Firstly, sooner or later, the law of diminishing returns will operate; and secondly, over time, profit maximising is always a key goal.'

Explain the difference between diminishing returns to a factor in the short run, and returns to scale in the long run.

[15 marks]

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18. 'In the middle of the twentieth century, the UK had more than 20 large car producing companies, and countless small, local manufacturers, many of which also produced motorbikes and pedal cycles. Now there is no single car producer that is purely 'British' and, globally, there are probably fewer than 20 significant car producers in the world.'

Explain how economic theory suggests that perfect competition among many small firms leads to an efficient allocation of resources.

[15 marks]

19. Sony, one of the largest electronics and entertainment companies in the world, started out as a two-man operation in a back-yard garage. Facebook, now a huge global company, was created by two college students to enable their circle of friends to communicate with each other.

Since economies of scale give major advantages to large firms, is there any future, without government intervention, for small firms in a global economy? Justify your answer.

[25 marks]

20. Explain what is meant by a 'finite' resource" (**Extract B**, line 4) and, with the help of a diagram, analyse why it might be argued that environmental policies are 'bad for business'.

[9 marks]

21. 'A third runway at Heathrow is essential for the success of the economy of London and the UK.'

'A third runway at Heathrow would be an environmental disaster and cause huge market failure.'

Explain how an investment project, such as airport expansion, can be commercially successful and yet produce market failure.

[15 marks]

22. A firm employs three factors of production: capital, land and labour. The table below shows how the firm's output is affected by changing the amount employed of these factor inputs.

Units of output	Units of capital	Units of land	Labour (Number of workers)
500	20	40	60
1000	80	160	240
2000	140	280	420
3000	210	420	630
4000	300	580	860

The firm experiences constant returns to scale when it increases its output from

A 500 to 1000 units. ⬭

B 1000 to 2000 units. ⬭

C 2000 to 3000 units. ⬭

D 3000 to 4000 units. ⬭

[1 mark]

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23. The table below shows the output, average total cost and average revenue for a firm.

Units of output	Average total cost (£)	Average revenue (£)
10	15	26
11	14	24
12	13	23
13	12	21

At which one of the following levels of output will the firm maximise its profits?

A 10 units ○

B 11 units ○

C 12 units ○

D 13 units ○

[1 mark]

24. The table below shows possible differences between the meanings of the terms invention and innovation. Which combination, **A**, **B**, **C** or **D**, correctly identifies the difference between the meanings of these terms?

	Invention	Innovation	
A	Applies to changes in goods only	Applies to changes in services only	○
B	Applies to changes in services only	Applies to changes in goods only	○
C	Discovering something entirely new	Turns the results of invention into a product	○
D	Turns the results of innovation into a product	Discovering something entirely new	○

[1 mark]

25. Roughly £18bn is forecast to be spent in the UK on advertising in 2017. Much of this will be spent by monopolistically competitive firms or oligopolies seeking to differentiate the products they sell to consumers.

Explain how price and output are determined for a firm in a monopolistically competitive market, in both the short run and the long run.

[15 marks]

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