

AQA A-LEVEL ECONOMICS • 7136

ECONOMICS



EXAM QUESTION PACK

3.1.5 PERFECT COMPETITION, IMPERFECTLY COMPETITIVE MARKETS AND MONOPOLY

SCORE

/1676

PERCENTAGE

%

STEMUP

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Extract B (lines 13–14) states: ‘Most water (and sewerage) services are not provided by competitive markets... Only businesses can choose their water supplier’.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Extract E (lines 17–19) states that, ‘the price gap between discounters and conventional supermarkets is now about 10–12%, against more than 20% a few years ago.’

[25 marks]

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.

[15 marks]

Extract F (lines 9–10) suggests that ‘the British public really don’t care about who runs the trains; what they care about is reliability, comfort and price.’

[25 marks]

5.

Extract C (lines 14–15) states that ‘Rising prices will eventually also force builders in developing countries to explore alternatives to sand.’

Use the extracts and your knowledge of economics to assess the view that the increasing scarcity of sand is a problem best solved by market forces, rather than through government intervention.

[25 marks]

6.

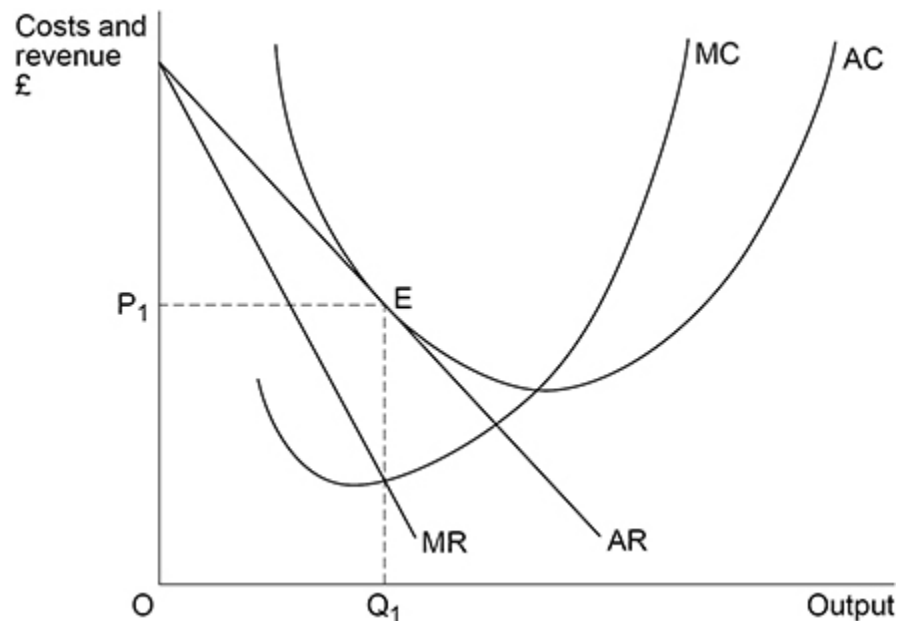
Extract E (lines 10–11) describes the British railway sector as a ‘natural monopoly’, which was split up into ‘no less than 100 pieces’ when it was privatised.

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

[9 marks]

7.

The graph shows the equilibrium position, point E, of a profit-maximising firm in a monopolistically competitive industry.



All other things being equal, which one of the following applies to the firm’s equilibrium at point E? The firm is

A in short-run equilibrium, but not in long-run equilibrium.

☐

B making normal profit because $AC = AR$.

☐

C making supernormal profit because $MC = MR$.

☐

D productively efficient but not allocatively efficient.

☐

[1 mark]

8.

The economist Greg Mankiw has written that 'society faces a trade-off between efficiency and equity. Efficiency means that society is getting the maximum benefits from its scarce resources. Equity means that those benefits are distributed fairly among society's members. Often, when government policies are designed, these two goals conflict.'

Explain how a production possibility diagram can be used to illustrate some features of the fundamental economic problem.

[15 marks]

9.

In December 2018, the Competition and Markets Authority (CMA) announced a range of policies to prevent firms charging existing customers more than new customers. Firms supplying financial services, mobile phones and broadband are no longer allowed to discriminate against loyal customers renewing their contracts.

Assess the view that price discrimination is always damaging.

[25 marks]

10.

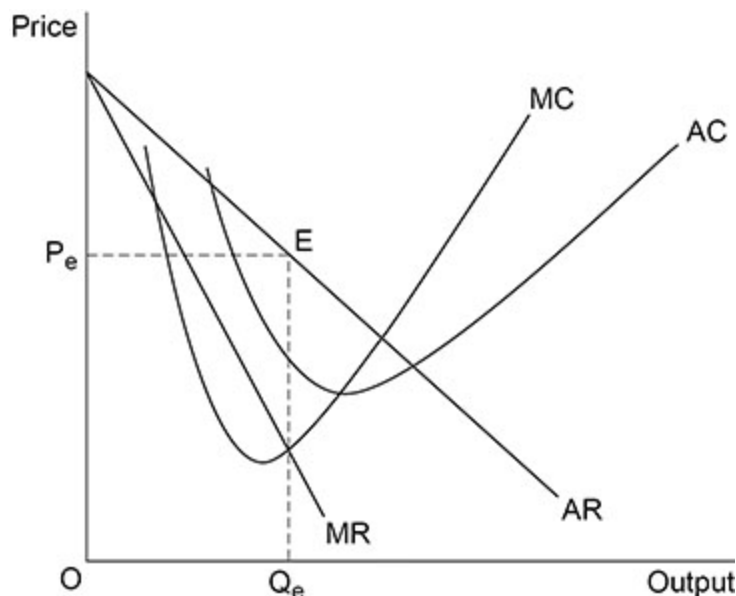
Critics of the world's five most valuable multinational technology firms (Google, Amazon, Apple, Facebook and Microsoft) argue that there ought to be greater government intervention to protect consumers' interests. Several European governments are considering imposing new taxes on the revenues of such firms, rather than their profits.

Discuss whether governments should consider increasing the regulation and taxation of technology firms which have acquired significant global monopoly power.

[25 marks]

11.

The diagram below shows the average and marginal revenue (AR and MR) curves and the average and marginal cost (AC and MC) curves for a firm. The firm is in equilibrium producing an output of Q_e .



From the diagram it can be inferred that the

- A firm is a price taker and will reduce its supply if the market price falls below P_e . ☐
- B firm is making abnormal profits but this will not attract new firms into the market because the firm has a monopoly. ☐
- C firm is maximising its abnormal profit and has no incentive to expand its production. ☐
- D firm's abnormal profit will lead it to expand its production and shift its market supply curve to the right. ☐

[1 mark]

12.

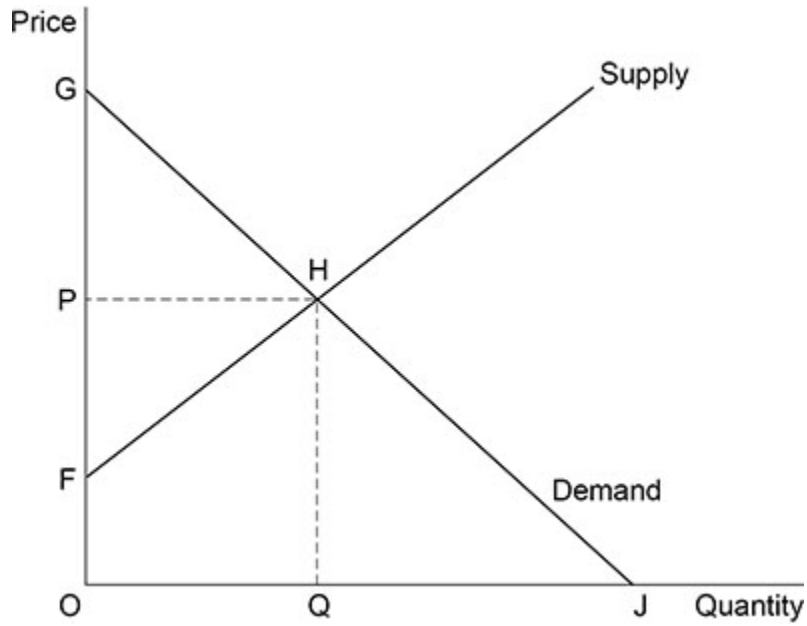
A monopolistically competitive firm's demand curve for good X has a price elasticity of demand of minus 1.0 throughout its entire range. All other things being equal, which one of the following is most likely to result in an increase in the firm's profits?

- 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]

13.

The diagram below shows the demand curve (Demand) and the supply curve (Supply) for bus travel within a city. The initial market equilibrium price is P.



To reduce pollution, the city council pays bus companies to provide bus travel free of charge. As a result of this policy, consumer surplus will increase by the area

A OFHJ

☐

B FGH

☐

C OPHJ

☐

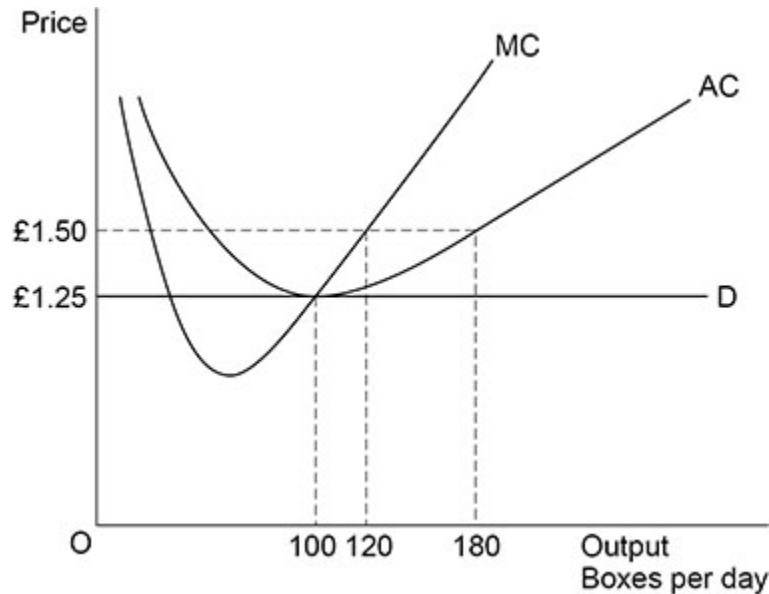
D QHJ

☐

[1 mark]

14.

The diagram below shows the demand (D) curve and the average and marginal cost (AC and MC) curves for a firm operating in a perfectly competitive market for eggs.



The firm is in equilibrium at the initial market price of £1.25 for a box of 6 eggs. If the market price increases to £1.50 for a box of eggs the firm will

A have a marginal revenue of £0.25.

☐

B increase its average revenue by 20%.

☐

C make supernormal profits in the long run.

☐

D sell 180 boxes per day in the short run.

☐

[1 mark]

15.

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]

16.

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]

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]

18.

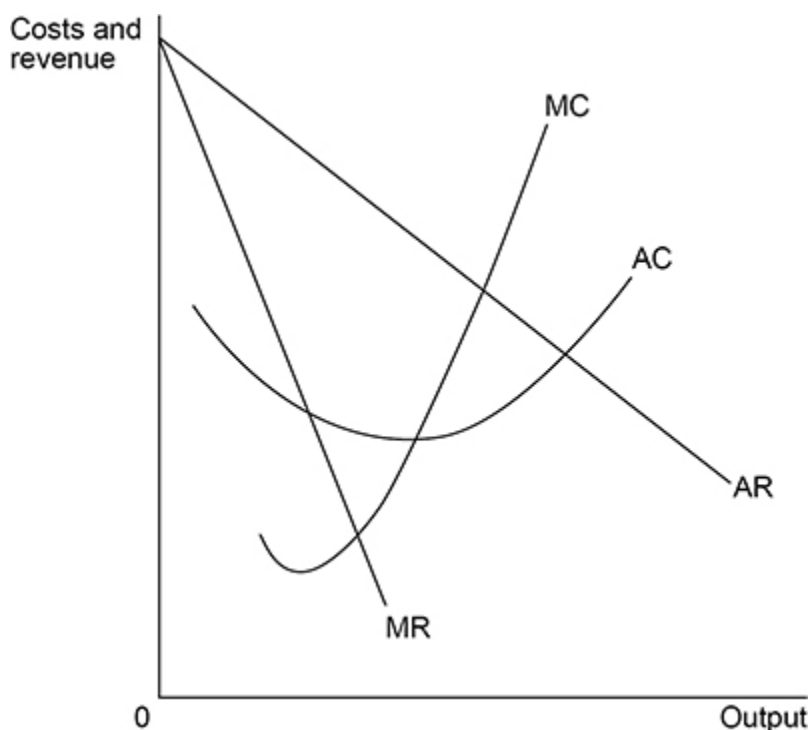
Extract B (lines 9–10) states: 'After the monopoly's patent expires, other companies can manufacture and market the same drug under its generic name, usually at a lower price.'

With the help of a diagram, explain why prices of pharmaceutical drugs supplied by a monopoly are likely to be higher than in markets which are more competitive.

[9 marks]

19.

The diagram below shows the average revenue and marginal revenue (**AR** and **MR**) curves and the average cost and marginal cost (**AC** and **MC**) curves for a firm in monopolistic competition in the short run.



At the profit maximising price and output the firm will

A make supernormal profits.

☐

B produce the allocatively efficient output.

☐

C produce where average revenue = average cost.

☐

D set price equal to minimum average costs.

☐

[1 mark]

20.

After considering **Extract D**, and the original evidence in **Extracts A, B and C**, would you recommend that the UK government provides financial and other support to companies involved in the production of commercial aircraft? Justify your recommendation.

[25 marks]

21.

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.

☐

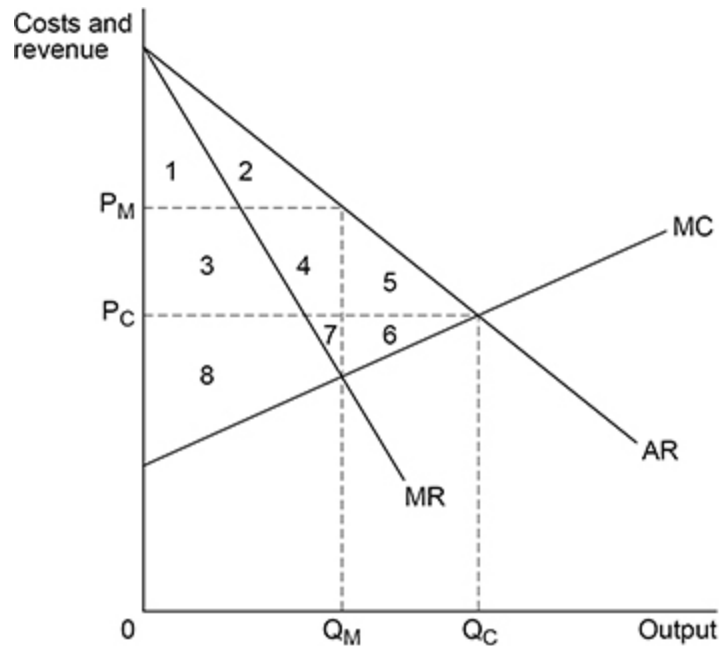
D Average revenue will increase and marginal revenue will fall.

☐

[1 mark]

22.

The diagram below shows the average revenue (**AR**), marginal revenue (**MR**) and marginal cost (**MC**) curves for an industry which was perfectly competitive but is now a monopoly. The cost and revenue curves remain unchanged.



Which of the following areas shows the total deadweight loss of consumer and producer surplus resulting from the structure of the industry changing from perfect competition to monopoly?

A 1 + 2

☐

B 3 + 4

☐

C 5 + 6

☐

D 7 + 8

☐

[1 mark]

23.

Essay 1

The government has promised that everyone will be able to access superfast broadband by 2025. As more people have switched to studying and working remotely, good Internet connections have become more important. Low-income households have difficult choices to make between high-speed Internet and essential items such as food, heating and clothing.

Explain how the price mechanism allocates resources in a market economy.

[15 marks]

24.

A firm charging different customers different prices for the same product is practising

A limit pricing.

☐

B marginal cost pricing.

☐

C price discrimination.

☐

D price leadership.

☐

[1 mark]

25.

Extract E (lines 16–17) states that, ‘Supermarkets set prices interdependently, and price wars look very likely.’

With the help of a diagram, analyse the impact on grocery consumers of interdependence between supermarkets.

[9 marks]

Mark schemes

1.

Level of response	An answer that:	Max 10 marks
3	- is well organised and develops one or more of the key issues that are relevant to the question - shows sound knowledge and understanding of relevant economic terminology, concepts and principles - includes good application of relevant economic principles and/or good use of data to support the response - includes well-focused analysis with a clear, logical chain of reasoning - may include a relevant diagram to support their explanation.	8–10 marks
2	- includes one or more issues that are relevant to the question - shows reasonable knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present - includes reasonable application of relevant economic principles and/or data to the question - includes some reasonable analysis but it might not be adequately developed and may be confused in places - may include a relevant diagram to support their explanation.	4–7 marks
1	- is very brief and/or lacks coherence - shows some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely - demonstrates very limited ability to apply relevant economic principles and/or data to the question - may include some very limited analysis but the analysis lacks focus and/or becomes confused - may include a diagram but the diagram is likely to be inaccurate in some respects or is inappropriate.	1–3 marks

Relevant issues include:

- meaning of 'competitive markets' and/or 'competition'
- distinction between price and non-price competition
- competition by price
- improvement of 'product'
- quality of service provided
- reduction of costs
- promotion/advertising.

[10]

Areas for discussion include:

- explanation of what ‘customers’ interests’ means in this context (to include low prices, high quality, customer experience/service, choice, convenience)
- discussion of differences between discounters (eg Aldi and Lidl), traditional stores (eg Tesco) and online retailers (eg Ocado)
- discussion of how the supermarket sector has evolved in recent years
- analysis of the market structure in the supermarket sector (with elements of oligopoly and localised monopolies)
- the impact of competition and profitability on innovation
- assessment of trends in prices and profits
- impact of the pandemic on shopping habits, with a significant move towards online shopping, and whether shoppers are likely to change back to physical stores
- the role of the CMA in ensuring competition and positive outcomes for customers
- discussion of the proposed merger between Asda and Sainsbury’s and why the CMA decided to oppose it
- the particular problems of local monopolies in the supermarket sector
- the CMA investigation into Tesco’s abuse of restrictive property arrangements in order to retain local monopoly power
- use of examples
- market failure arguments
- government failure arguments.

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

[25]

3.

Areas for discussion include:

- definitions of short run and long run
- definition of normal profit, awareness that it should be considered a cost and why it is required to remain in business in the long run
- explanation of profit maximisation
- explanation of what is meant by loss, in other words total costs exceeding total revenues
- explanation of why this is likely to be problematic in the short run (eg cash-flow problems) and long run
- analysis of breakeven point for a firm and the need for average revenue to cover average total costs at the profit-maximising point in the long run
- analysis of the need for average revenue to cover average variable costs at the profit-maximising point in the short run, to avoid the firm shutting down
- explanation of why a loss-making firm is able to carry on as long as it is covering its variable costs
- the availability of options for continuing if running operations at a loss, eg the existence of affordable credit or investment, or previously retained earnings
- analysis of barriers to exit such as sunk costs
- application to perfectly and/or imperfectly competitive markets
- impact of business cycles on a firm's profit – cycles may be caused by booms and recessions, or by seasons
- firms may consider long-run profits rather than short-run profits and continue despite making losses
- in the short run the firm may be investing heavily in capital, R & D or marketing, which may lead to short-run losses but long-run profits
- in the short run the firm may be pursuing strategies to increase market share, and gain monopoly power in the long run
- use of examples, including those mentioned in the quote, to illustrate why a firm may to continue to produce in the short run, despite making losses.

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

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

[15]

4.

Areas for discussion include:

- what is meant by renationalisation
- explanation of natural monopoly
- arguments in favour of renationalisation
 - simpler consumer offering, less baffling ticketing options, more consistent service
 - economies of scale, eg purchasing of rolling stock, marketing
 - greater consideration of externalities, eg safety
 - necessary for making much-needed investment in new tracks and technology, although government currently subsidising network rail so perhaps little impact here
 - no great upfront cost as nationalisation occurs when franchises come to an end
 - successful state-run railways across much of Europe
 - current situation appears to nationalise the risks, but privatise the rewards (East Coast mainline)
 - the relative success enjoyed by the East Coast mainline when run by the state
 - current situation isn't true competition anyway as consumers rarely have a choice of suppliers for a given journey

- arguments against renationalisation
 - passenger numbers have expanded enormously since privatisation, with UK rail being used very intensively
 - recent increase in investment under private hands
 - big improvements have occurred in safety, innovation and comfort
 - no excessive profits being made consistently by rail firms, with small profit margins being the norm
 - many current concerns about railways (eg overcrowding, punctuality) are unlikely to be resolved by a change of ownership
- market failure arguments
- government failure arguments.

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

[25]

5.

Areas for discussion include:

- explanation of market forces and government intervention
- acknowledgement of recent rapid growth in the sand market
- discussion of the increasingly global market for sand, with the commodity being transported vast distances by sea
- explanation of how the market might respond to challenges via the price mechanism (incentives, signalling, rationing)
 - price of sand rising leading to recycling and reduction in use
 - substitutes becoming more available
- ability of the market/government response to cope with future developments, including rising sea levels and the expected construction needs of rapidly developing countries
- discussion of problems created by the sand industry
 - externalities from degradation of environment
 - externalities from transport of sand
 - tragedy of the commons
 - disappearance of Indonesian islands
 - sand dredging damaging biodiversity
 - vulnerability to extreme weather
- discussion of benefits of the sand industry
 - restoring coasts of low-lying islands such as Kiribati
- discussion of possible policies at the national level
 - regulations
 - taxation
 - permits and quotas
 - price regulation
- discussion of problems with the above policies, referencing the organised criminal networks in India, black markets, etc.
- explanation of how international agreement may be necessary given the global nature of the problem
- discussion of how such international agreements are slow to achieve and often fail to address problems identified
- market failure arguments
- government failure arguments.

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

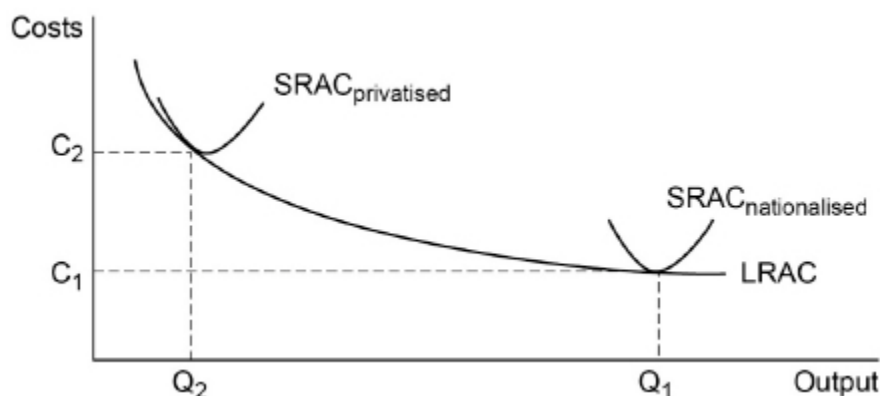
Level of response	Response	Max 25 marks
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3	Some reasonable analysis but generally unsupported evaluation that: - focuses on issues that are relevant to the question, showing satisfactory knowledge and understanding of economic terminology, concepts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

[25]

6.

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

A natural monopoly diagram is expected, showing constantly declining LRAC in the rail sector. In addition, two or more SRAC curves contained within the LRAC envelope could be used to illustrate the different cost profiles of the sector, though these are not essential. One SRAC to show where the opportunities for economies of scale aren't adequately exploited and the other showing where the industry is operating as a monopoly, exploiting more fully the potential economies of scale.



Relevant issues include:

- explain what is meant by long-run average costs
- explanation of the characteristics of natural monopoly, and why railways can be considered a natural monopoly (huge network, large capital costs, etc)
- explanation of minimum efficient scale relative to the size of the market
- how automation and technological progress boost labour productivity within industries and markets
- provide examples of economies of scale that might be available to firms operating in the railway sector
- reference to the fact that costs are 40% higher in the UK than the rest of Europe
- explanation of the higher long run average costs that are likely to flow from fragmenting the railways into numerous smaller parts
- explain the franchise model and how this encourages short-term priorities at the expense of long-run average cost reductions
- explain that the profit motive forces firms to cut costs in order to maximise profit – this could be via a reduction in X-inefficiency.

[9]

7.

B

[1]

8.

Areas for discussion include:

- definition of the ‘fundamental economic problem’
- definition of PPF/PPD
- explanation of how a PPF shows the trade-offs implicit in an economy’s decision over what to produce and resource allocation
- explanation of opportunity costs
- explanation of why PPFs tend to be convex to the origin
- how all points on a PPF are productively efficient, where all factors of production are being put to good use and production is at its lowest cost
- how moving from one point on the PPF to another point on the PPF means necessarily sacrificing some production of the first good for the second
- how an economy at a point inside a PPF suggests unemployed factors of production, and that expanding production to the PPF can result in short-run economic growth
- the significance of shifts in the PPF outwards or inwards in terms of productive capacity
- explanation of why points on a PPF are productively efficient, but they aren’t all allocatively efficient
- a PPF drawn to show the possible production combinations between consumption and capital goods could be used to explain how dynamic efficiency is possible, if factor inputs are deployed to the capital sector, where the quantity and quality of capital might increase

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

Level of response	Response	Max 15 marks
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2	A reasonable response provides an answer that: • focuses on issues that are relevant to the question • shows satisfactory knowledge and understanding of economic terminology, concepts and principles but some weaknesses may be present • includes reasonable application of relevant economic principles to the given context and, where appropriate, some use of data to support the response • includes some reasonable analysis but which might not be adequately developed or becomes confused in places.	6 – 10 marks
1	A weak response provides an answer that: • has identified one or more relevant issues • has some limited knowledge and understanding of economic terminology, concepts and principles but some errors are likely • has very limited application of relevant economic principles to the given context and/or data to the question • might have some limited analysis but it may lack focus and/or become confused.	1 – 5 marks

[15]

9.

Areas for discussion include:

- definition of price discrimination
- the conditions necessary for price discrimination
- discussion of different types of price discrimination
- the disadvantages of price discrimination (higher price for many consumers, loss of consumer surplus, pricing seen as unfair eg for captive consumers such as rail season ticket holders)
- the advantages of price discrimination (lower prices for some customers with lower demand, typically those from low income households, customers with highest utility of a good or service likely to obtain the good, output likely to be higher than would be the case from a non-discriminating monopolist)
- price discrimination may be preferable to a single-price which results in secondary markets developing (eg ticket touts)
- price discrimination is good for the monopolist, increasing revenues and profits
- price discrimination is good for consumers who would otherwise have been unable to afford a good or service (eg last-minute holiday bookings) eases the impact of inequalities
- price discrimination may allow for cross-subsidisation of unprofitable goods or services
- the negative image of price discrimination, especially relating to accusations of exploitation levelled at monopolists in response to natural disasters
- discussion of the alternative to a discriminating monopolist (likely to be a non-discriminating monopolist rather than a competitive market)
- use of examples
- market failure arguments.

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

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

[25]

10.

Areas for discussion include:

- definition of monopoly power
- explanation of how new monopolies have achieved market dominance
- explanation of how firms with monopoly power can exploit their power to restrict output and raise prices
- discussion of how the nature of monopoly is changing, as the rich world's demands shift away from heavy industry and towards information economies
- how monopoly regulation has largely been designed for a different context from the modern internet firms, and is (to some extent) trying to catch up with the pace of change
- how breaking up firms may lead to more competition and better customer outcomes, but could jeopardise the economies of scale enjoyed by large dominant firms and their customers
- how a tax would be likely to work: an indirect tax; 'super tax' on abnormal profits
- recognition that many services offered by these firms are free to users, paid for by third-party advertising, hence price-based interventions are unlikely to be effective
- one proposed policy in this area is to require tech firms to pay users for permission to collect and use personal data
- discussion of the international context. Many of the technology firms have significant operations in multiple countries, so any policy may need to be agreed/coordinated by a number of countries. Firms might be considered to be 'footloose' in terms of tax avoidance
- examples of regulation of such firms by eg EU Competition Commissioner's fine for Google
- recognition of how many concerns about the large Internet firms are about data protection and privacy rather than economic concerns
- overall assessment about whether there ought to be more intervention in this market, and whether it should be by breaking up the firms
- explanation of how the recent history has featured the natural demise of seemingly dominant firms in the information market (eg myspace, askjeeves, IBM) without any government intervention
- discussion of productive, allocative and dynamic efficiency
- market failure arguments
- government failure arguments.

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

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

[25]

11.

C

[1]

12. A or C

[1]

13. C

[1]

14. B

[1]

15. **Areas for discussion include:**

- definition of technological change, perfect competition
- discussion of the features of competitive markets in relation to technological change and market structure
- recognition that perfect competition is an unattainable ideal in many sectors, and is best thought of as one end of a spectrum of market structures to which sectors should (arguably) be guided
- in some sectors, the use of the internet and other technological innovation has hugely improved price transparency, thus minimising information asymmetry and getting closer to perfect information (eg price comparison websites, insurance brokers)
- in some sectors, firms have strengthened dominant positions by erecting barriers to entry such as massive economies of scale and advanced inventory systems (eg Amazon)
- the impact of artificial intelligence, robotics, and retention of personal data on markets, making markets less competitive, eg online customers now receiving personalised adverts
- the improvement of communications has led to improved information flows and made some markets more competitive, but has also led to the demise of other sectors, eg streaming replacing CDs and radio to an extent
- the impact of technology on reducing average costs and thus potentially reducing prices
- the impact of technology on the number of sellers in a market, eg possibility of starting a business with a laptop from a bedroom
- the impact of technological change on homogeneity of products and services
- discussion of productive, allocative and dynamic efficiency
- discussion of Schumpeterian creative destruction
- examples of markets that have become more competitive
- examples of markets that have become more concentrated
- overall assessment about whether technological change tends to bring industries closer to the market structure of perfect competition.

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

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

[25]

16.

Areas for discussion include:

- explanation of pharmaceutical market structure
- discussion of consumer interests in this market: low and stable prices, safe and effective products, access to drugs (these are merit goods)
- discussion of the role the NHS plays in acting as a monopsonistic buyer of pharmaceuticals in the UK, whereas in the USA and elsewhere, there are many more buyers
- the oligopolistic nature of the generics market, with a small number of firms typically producing each drug, and the opportunity for collusion and price-fixing, especially as there is little or no branding of products
- the fact that monopoly power is legally granted to firms in order to encourage research and development into new drugs. The advantage of this is that new drugs are invented. The disadvantage is that it can take 20 years for lifesaving drugs to become more affordable
- the ability of pharmaceutical firms to exploit monopoly power and inelastic demand by massively increasing prices
- the importance of economies of scale
- the importance of dynamic efficiency and links to market structure
- the significance of productive and allocative efficiency
- in generic pharmaceutical markets, oligopoly power can lead to tacit or collusive price-setting
- very high levels of investment in research and development for new drugs and treatments, contributing to rising life expectancy and improved survival rates, for example cancer and HIV/AIDS
- discussion of possible policies at the national level which may impact on consumer interests, eg regulation by the CMA
- market failure arguments
- government failure arguments.

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

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

[25]

17.**Areas for discussion include:**

- definitions of perfect competition, productive efficiency, allocative efficiency
- explanation of the assumptions of perfect competition
- explanation of how and why firms are forced to be price-takers in perfect competition
- the ability to earn supernormal profits is restricted. In the short run, perfectly competitive firms may make some supernormal profit, in the long run such profits will be eroded by new entrants joining the market or existing competitors expanding output. This contributes to allocative and productive efficiency
- explanation of how firms must produce output at the lowest point on the average cost curve. Any productive inefficiency will be punished by other more efficient firms selling at a lower price
- explanation of the condition for allocative efficiency ($P=MC$) and how and why this will be ensured in perfect competition.

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

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

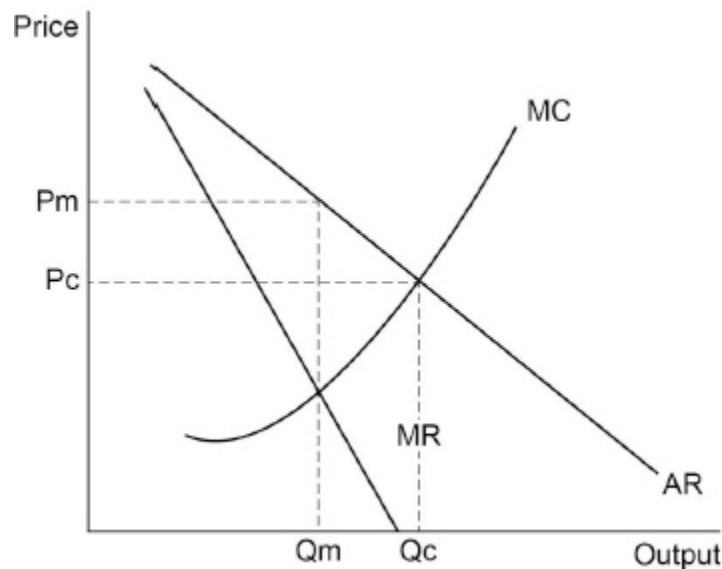
[15]

18.

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

Suggested diagram

A monopoly/competitive market diagram is expected, showing how monopolists may restrict output and set a higher price, P_m , than they would in a competitive market, P_c . However, other appropriate diagrams should be given credit.



Relevant issues include:

- definitions of monopoly and competition
- explanation of the diagram, showing price-making behaviour of monopolists, resulting in higher prices and lower output. Comparison with price-taking behaviour of firms in a competitive sector, where output is higher and prices are lower
- less pressure to keep down costs in a monopoly
- explanation of the role of patents in pharmaceutical monopolies
- explanation of high development costs for new drugs leading to high prices, including the costs of research, testing, marketing and regulatory approval
- explanation of how very low marginal costs result in low prices once patent expires
- new, innovative drugs are even more expensive to develop than previous generations of new drugs thanks to new technologies such as personalised pharmaceuticals
- over-reliance on one or two key suppliers for patented drugs – if they collapse, prices will increase substantially. In competitive markets no one firm is critical to the market.

[9]

19.

A

[1]

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

Relevant issues and areas for discussion include:

- market failure as a justification for government support
- damage to the environment as source of market failure in the commercial aircraft industry, eg greenhouse gas emissions, noise pollution
- the high cost and risk may, without government support, lead to inadequate spending on R&D and capital investment
- to support investment in human capital where the existence of positive externalities may be a source of market failure and, if left to the private sector, may mean spending is too low
- to support growth and employment in the less prosperous regions where market failures may mean that they do not develop sufficiently, eg immobility of labour, inertia, cumulative causation and local multiplier effects
- may help to promote improvements in productivity and competitiveness
- external benefits (spin-offs) for other industries arising from developments in the commercial aircraft manufacturing industry
- supports UK manufacturing helping to achieve a more diversified, balanced economy
- may be needed to match the support provided by other countries
- may be needed in the short run to support the industry when there is a significant economic shock
- impact on employment
- impact on short-run and long-run economic growth
- government support as an injection into the circular flow of income and related multiplier effects
- impact on exports and the balance of payments
- may lead to over-reliance on government support, inhibiting improvements in productivity and efficiency
- may make it difficult for new firms to enter the market
- distorts the pattern of comparative advantage, supporting inefficient industries reducing the gains from trade
- may breach WTO rules and allow other countries to impose tariffs and other trade restrictions in retaliation
- implications for taxation, other categories of public expenditure and the budget balance
- various arguments relating to government failure, eg information failures, administrative costs, political motivations
- a supported recommendation.

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

An answer that does not include any evaluation, either throughout the answer or in a supported recommendation, must not be awarded more than 13 marks.

[25]

21.

A

[1]

22.

C

[1]

23.**Areas for discussion include:**

- definition of price mechanism, resource allocation and market economy
- explanation of the way in which demand and supply functions interact in equilibrium to determine price and quantity
- explanation of the rationing function of prices in allocating resources and coordinating the decisions of buyers and sellers in a market economy
- explanation of the signalling function of prices in allocating resources and coordinating the decisions of buyers and sellers in a market economy
- explanation of the incentives function of prices in allocating resources and coordinating the decisions of buyers and sellers in a market economy
- the role of prices in product and factor markets
- the interaction between markets
- use of examples.

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

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

[15]

24.

C

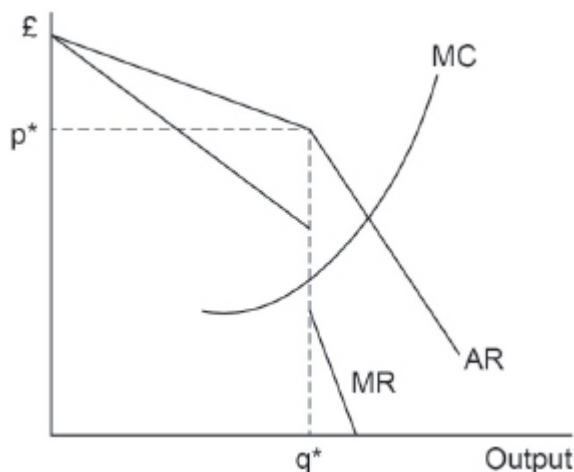
[1]

25.

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

Suggested Diagram

A kinked demand curve diagram is expected, showing how interdependence in the supermarket sector may mean prices are sticky.



Notes

The diagram does not have to include the MR and MC curves, a kinked AR curve is sufficient.

A different relevant, valid diagram should also be rewarded. Allow a game theory matrix.

Relevant issues include:

- the meaning of interdependence and uncertainty
- explanation of the supermarkets as an example of an oligopoly
- explanation of the diagram, including why the demand curve is kinked (relating to price elasticities of demand either side of p^*)
- analysis of how prices are likely to remain sticky in this model, even if the costs increase prices may not increase
- reference to 'split shops' from Extract E
- the price gap is declining between the discounters and conventional supermarkets
- interdependence leading to a price war may be reflected in traditional supermarkets' commitment to 'price match' discounters' prices
- examples of non-price competition such as greater investment in stores to attract customers
- the incentive to collude.

[9]

1. Is price discrimination always good for producers and bad for consumers? Justify your answer.
[25 marks]

2. ‘...given the activities with which it is involved, there are commercial and wider economic and social arguments against a body such as the MHPA being privatised’
(**The Global Context Extract B**, lines 12–14).

Using the data and your economic knowledge, do you agree with the view that enterprises such as the MHPA should be privatised? Justify your answer.

[25 marks]

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 modified (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 modified 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

4. 'On a typical train journey, there could be as many as twenty different fares being paid by passengers travelling between the same two stations.'

Using the concept of price discrimination to help you, explain how and why this might happen.

[15 marks]

5. 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]

6. '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]

7. Explain the term 'price taker' **and** analyse the likely effects of an increase in the world demand for scrap metals on the output **and** profits of a scrap metal dealer (**The Global Context Extract B**, lines 1–4).

[9 marks]

8. Using the data and your economic knowledge, evaluate the view that mergers, such as the one proposed between *British Airways* and *Iberia Airlines*, are usually 'good for consumers as well as for the companies involved' (**The European Union Context Extract D**, lines 22–23).

[25 marks]

THE EUROPEAN UNION CONTEXT

Extract D: *British Airways and Iberia Airlines*

Until about twenty years ago, most European countries had at least one large 'national carrier' airline which was in public ownership. When airlines were privatised, there were fears that a state-owned monopoly would simply become a private monopoly. On some routes, de-regulation took some time and it was not until 2008 that the 'Open Skies' agreement sought to eliminate anti-competitive practices among airlines flying from Europe to North America. These anti-competitive practices included denying smaller airlines the opportunity to rent landing slots (landing spaces) at major airports.

In the face of greater competition from smaller, more innovative airlines such as *Virgin Atlantic* and the low-cost carriers such as *easyJet*, there has been increasing collaboration between some of the larger, traditional companies. *British Airways (BA)*, *Iberia Airlines (Spain)* and *American Airlines (AA)*, together with five other airlines, belong to *One World Alliance*, an arrangement which enables member airlines to sell seats on each other's flights.

With BA reporting a pre-tax loss of £401m in May 2009, its Chief Executive proposed a 'tie-up' with Iberia and AA which would come closer to a full-blown horizontal merger, enabling not only the marketing of flights but also joint pricing and a sharing of revenues. The proposal needed to be cleared by both EU and US anti-monopoly authorities, but it quickly failed when the European Union's Competition Commissioner objected, mainly on the grounds that it would raise prices and reduce consumer choice.

In October 2009, two European members of <i>One World Alliance</i> , BA and Iberia, tried again to reach a preliminary agreement for a full merger which they aimed to complete in late 2010. They claimed that a merger would be good for consumers as well as for the companies involved because duplicated European routes could be rationalised, while the routes operated in North America by BA and in South America by Iberia were complementary rather than competitive. The merger would need to be approved by the European Commission but there was a precedent because, in 2004, Air France was allowed to merge with Dutch airline KLM.	20 25
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The merger between *BA* and *Iberia* would create Europe's biggest airline. Critics raised concerns about the new company's market share and claimed that *BA*'s dominance at Heathrow Airport would increase to even more than its existing 44% of landing slots. Meanwhile, both *BA* and *Iberia* workers were planning strikes over cost-cutting proposals and pay offers.

Source: news reports, 2009

10.**THE GLOBAL CONTEXT****Extract B: The recycling market**

Scrap metal dealers are once again touring housing estates in their pick-up trucks obtaining steel and other metals from householders. Increased demand for steel and other metals on world markets has led to a change in the fortunes of these dealers, who are price takers. 1

Recycling has become a global activity. In 2009, with gold selling internationally at well over \$1000 an ounce, there were TV adverts from companies wanting to buy unwanted jewellery. A mobile phone also contains tiny traces of precious metals which can be extracted profitably from the millions of phones discarded each year. This is done at large processing centres, usually near sea ports, and much of the recovered material is exported to factories in China. The Olympic stadium in Beijing, China, was built almost entirely using recycled steel. 5 10

Germans, Scandinavians and Canadians are used to sorting their rubbish into different coloured bins. But instead of matching the recycling rates achieved in some countries, the UK still dumps many potentially useful materials. These include plastics, glass, paper and metals, which are buried in landfill sites partly because there are insufficient market incentives for recycling. The UK's strong reliance on landfill indicates the existence of widespread environmental market failure. Landfill creates greenhouse gases, threatens to pollute water sources and wastes scarce resources. 15

Some critics suggest that it would be better for the UK to aim at waste reduction, eliminating unnecessary packaging and other 'bads' at the production and retail stages. The UK pressure group *Waste Watch* also suggests more reuse, for example encouraging people to buy second-hand clothes from charity shops. However, other methods, such as returnable milk bottles, are in sharp decline. 20

There are now landfill taxes and regulations which provide incentives for recycling. Households could face the prospect of fines for breaking 'bin-bag rules'. However, this may lead to unintended consequences such as illegal dumping of waste. *Waste Watch* wants national targets and other policies to promote composting because, by weight, garden and kitchen waste make up the majority of material sent to landfill. *Waste Watch* also suggests increasing the landfill tax each year and extending it to cover incineration and other waste-disposal methods. 25 30

Recovery is a further option. In less developed countries, some homeless people live on city rubbish dumps making a living from what they can find and sell. In the UK, market conditions are such that the metal in a 2p coin is now actually worth 3p. Some experts even predict that within ten years it will be economic to excavate landfill sites to 'mine' the tin cans and other scrap materials that have been buried there.

Source: news reports, 2009–10

11.

Assess the view that making an oligopolistic market more contestable is the best way to improve the efficiency of that market.

[25 marks]

12. ‘Oligopolistic markets, such as supermarkets or car manufacturing, can be defined in terms of market structure or in terms of market conduct (behaviour).’

Using examples of particular industries, explain this statement.

[15 marks]

13. Discuss whether the objective of profit maximisation becomes less important than other possible objectives as a firm grows in size.

[25 marks]

14. ‘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]

15. 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]

16. ‘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]

17. An oligopolistic firm is trying to decide on the selling price and output of its product, and is also considering colluding with other firms in the industry.

Evaluate policies which a UK government could use to control the activities of oligopolists.

[25 marks]

18. ‘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]

19.**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. 1 5

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. 10

Source: news reports, 2008–9

20.**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. 1 5 10

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. 15

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. 20

Source: news reports, 2008–9

21.

Evaluate whether profit maximisation is always the most important objective of firms.

[25 marks]

22.

An oligopolistic firm is trying to decide on the selling price and output of its product, and is also considering colluding with other firms in the industry.

Explain why oligopolistic firms are affected by both interdependence and uncertainty when selling their product.

[15 marks]

23.

'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]

24.

Evaluate the view that, providing there is market contestability, government intervention to ensure competition is unnecessary.

[25 marks]

25.

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

[15 marks]

1.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these and / or other issues in the time available.

Issues and areas for discussion include:

Introduction	• further consideration of the ‘degrees’ of PD, relating to consumer and producer surplus • discussion of the significance of relatively high fixed costs and peak demand • examples of PD.
Developing the response to the question:	• Reasons why PD may be good for the producer, eg helps the producer to increase ◦ total revenue ◦ profit / producer surplus ◦ output / market share ◦ protection of a monopoly. • Reasons why PD may be bad for consumers, eg ◦ reduces welfare (transfers consumer surplus to producer) ◦ reduces equity: some consumers might feel it unfair that others get cheaper prices ◦ ‘first degree’ (precise phrase need not be used) PD would remove all consumer surplus, therefore increase the cost of living for individuals ◦ low prices could be a barrier to entry, or used to eliminate competition.
Evaluation	• However ◦ PD might secure a loss-making good or service if high price consumers in effect cross-subsidise others ◦ less well-off customers might get access to a product for the first time (eg budget air travel) ◦ if profits are re-invested consumers might benefit in the long run ◦ a larger market leads to economies of scale with lower prices than otherwise • Consideration of word ‘always’ • General consideration of costs versus benefits. Examiners should note that it may be possible to award some marks for basic evaluation such as consideration of a number of pros and cons. However, this must be considered as low-level evaluation and rewarded accordingly. Stronger evaluation would prioritise the arguments for and against, and / or give economic reasons for justifying a judgement.
Also give credit for:	• reference to the UK and / or other economies • diagrams • an overall judgement on the issues raised

Issues and areas for discussion include:

Introduction	• definitions/descriptions of ◦ privatisation ◦ public-private partnership (PPP).
Developing the response to the question: Application	• Evidence from the data used to support arguments for or against privatisation, e.g. references to ◦ competition ◦ concentration ◦ strategic industry ◦ public/private partnerships ◦ need for coordination across government levels ◦ environmental considerations ◦ employment.
Developing the response to the question: Analysis	• general arguments FOR privatisation, e.g. privatisation increases efficiency because the organisation becomes accountable to shareholders instead of politicians/taxpayers and therefore has to focus on profits. • general arguments AGAINST, e.g. an organisation of this type needs to have wider social objectives as well as narrow commercial objectives; the large capital costs and the strategic nature of LNG make it appropriate for the state to intervene. • reasons for the PPP format, e.g. to supply funds in the national interest; to negotiate enforceable contracts with foreign governments • reasons why the MHPA's activities might create negative externalities and impact of state versus private control.
Evaluation	• effects on competition and consumer choice can go either way; could possibly reduce competition and choice • spill-over effects from LNG industry creating costs for others in the area, e.g. tourism • possibility of market failure • possibility of government failure, e.g. wrongly predicting the market for energy • knock-on effects on the labour market • conflict of policies, e.g. with renewable energy • critique of the PPP format, e.g. may lead to ◦ inefficiency ◦ monopoly

	• impact of regulation <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• relevant use of evidence and examples not contained in the data • relevant diagrams • an overall judgement on the issues raised.

[25]

4.

For candidates who:

Define / explain 'price discrimination' in general terms, eg a producer charging different customers different prices which are not fully justified by cost differences for the same good or service.

Connecting price discrimination to this example (a train journey), with reference to competition / revenues / costs, eg:

- PD involves at least some customers paying more than they would under perfect competition and for PD to work the firm needs some degree of control over price a means of separating markets eg by characteristics of customers avoiding arbitrage / seepage
- consideration of the different characteristics / elasticities of different rail passengers (e.g. commuters, off peak). Those with lower PED pay higher prices.
- considerations of different costs created by different passengers (eg 1st Class vs. Standard, commuters vs. leisure travellers)
- PD is closely related to yield management / relationship between total revenue and price elasticity of demand, with separate elasticities in each market.
- outline of different 'degrees' of PD
- profit maximisation as a motive for PD
- fully reward discussion of reasons other than PD

[15]

5.

Explain (eg define / describe) how the size of a firm can be measured (eg in terms of capital employed, profits, market share, employment).

Explain the different ways in which a firm can grow, eg

- internal (organic) growth which can arise through, for instance, selling to an expanding market, or achieving greater market share and can be financed through means such as ploughed-back profits or borrowing/leverage
- external growth (mergers / takeovers)
- vertical integration
- horizontal integration
- diversification (lateral / conglomerate integration)

[15]

Issues and areas for discussion include:

Introduction	- the meaning of cost minimisation - the meaning of revenue maximisation.
Developing the response to the question:	- methods of reducing / minimising costs - implications of cost minimisation - methods of increasing / maximising revenues - implications of revenue maximisation - discussion of whether both can be pursued at once - profit maximisation / satisficing - other possible objectives; the importance of the type of firm, eg small, large - issues to do with the divorce of ownership and control; different sections / interests within a single firm might have different objectives, eg production process (minimise costs) sales / marketing (maximise total revenue) managers (utility / status / bonuses linked to profits / sales / other indices), shareholders (long-run, short-run perspectives on share prices and dividends).
Evaluation	- consequences of different types of conduct / market structure - explanation that while $\text{Total Profit} = \text{TR} - \text{TC}$, maximum profit is at $\text{MC} = \text{MR}$ and can occur in the short run when revenues are not maximised and costs are not minimised - consideration of short-run and long-run equilibrium - possibility of satisficing and other types of behaviour - picking up on the word 'always' in the question. Examiners should note that it may be possible to award some marks for basic evaluation such as consideration of a number of pros and cons. However, this must be considered as low-level evaluation and rewarded accordingly. Stronger evaluation would prioritise the arguments for and against, and / or give economic reasons for justifying a judgement.
Also give credit for:	- relevant use of evidence and examples not contained in the data - diagrams - an overall judgement on the issues raised

[25]

7.

For candidates who:

Explain 'price taker', eg

- in terms of a firm which is small in relation to the industry so by its own actions cannot affect market price and from its point of view faces a horizontal (perfectly elastic) demand curve.

For a horizontal demand curve diagram

Analyse the effects as required, for example:

- an argument to the effect that because of, for example, Chinese manufacturing development, the world demand for steel has risen, increasing the world price of steel and hence the world price of scrap iron and steel enabling the firm to increase its output and make a supernormal profit.
- more firms enter the market shifting the world supply of scrap steel to the right and reducing the world price
- eventually the world market is in long-run equilibrium with firms earning normal profits on their individual outputs and world output at a higher level than before
- the increased entry tending to lower price, might be counteracted by continuing increases in world demand (eg due to demand from China).

Make use of a suitable diagram or diagrams in the analysis, eg a perfect competition SR / LR equilibrium diagram.

[9]

8.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these and / or other issues in the time available.

Issues and areas for discussion include:

Introduction	• basic meaning of merger • different types of merger (data refers to 'horizontal') • possible motives for merger: market share, growth, economies of scale, efficiency gains, monopoly power
Developing the response to the question:	• Reasons why mergers might be good for customers / passengers, eg: ◦ Lower prices, due to eg economies of scale, aircraft working closer to capacity ◦ Wider range of product / services ◦ Synergies, more integrated services (data refers to intra-EU, and EU-America services) • Reasons why they might be bad ◦ Higher prices, due to eg reduced competition ◦ Less choice ◦ Loss of consumer surplus • Reasons why mergers might be good for producers / airlines, eg: ◦ Economies of scale, lower costs, greater efficiency ◦ Rationalisation ◦ Less competition, higher profits ◦ Long run, dynamic efficiency, greater market power • Reasons why they might be bad, eg: ◦ Might attract attention of regulators (EU Commission mentioned in data) ◦ Monopoly, inertia, loss of efficiency
Evaluation	• costs versus benefits of merger • discussion of government role in regulating mergers • market failure versus government failure • short-run versus long-run perspectives. Examiners should note that it may be possible to award some marks for basic evaluation such as consideration of a number of pros and cons. However, this must be considered as low-level evaluation and rewarded accordingly. Stronger evaluation would prioritise the benefits and costs, and / or give economic reasons for justifying a judgement on, for example whether benefits generally outweigh costs.

Also give credit for:

- relevant use of evidence and examples not contained in the data
- diagrams
- an overall judgement on the issues raised

[25]

11.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these and / or other issues in the time available.

Issues and areas for discussion include:

Introduction:	• definition / explanation of efficiency: allocative, productive, dynamic • definition / explanation of contestability, eg in terms of a market where new entrants face similar low barriers, but particularly in terms of costs to existing firms and where firms can exit easily, in particular, upon exit, firms can recoup their capital costs.
Developing a response to the question:	• Consequences of contestability, eg ◦ Established firms find it difficult to earn supernormal profits, as these will be eroded by new entrants or ◦ The mere threat of new entrants will alter conduct (behaviour) ◦ Or might resort to collusion / cartels, etc, if regulatory framework is weak ◦ Firms might behave in some ways (eg pricing) as if in perfect competition ◦ Firms might also become more allocatively / productively efficient ◦ Examples of contestability / non contestability, eg using the cases of supermarkets, car manufacturing
Evaluation:	• consideration of alternative ways of improving efficiency • role of government • further examples, eg The National Lottery, theoretically a contestable market, but in practice has high entry and exit costs, and few competitors while the franchise run • an overview statement, eg to the effect that a market might 'look' like an oligopoly but behave like a price taker (car manufacturing), at least partly due to contestability • the possibility that truly contestable markets might be as difficult to find in the real world as perfect markets • the question of how to create contestability: eg de-regulation might lead to monopoly rather than competition • use of MSC / MSB analysis to consider the difference between efficiency in private and social terms.
Also give credit for:	• reference to the UK and / or other economies • diagrams

[25]

12.

Candidates do not have to cover either named industry. They can introduce an example of their own.

For candidates who:

Explain (define / describe) 'oligopoly' in general terms, eg

- Oligopoly can be defined as competition among a few sellers, and is a feature of 'concentrated markets'. Concentration can be indicated by means such as market share of, say, the 5 largest firms in the market

Explain 'structure', eg in terms of

- the number of firms
- market shares
- barriers to entry

Explain 'conduct (behaviour)', eg in terms of

- collusion / competition
- interdependence / uncertainty / gaming behaviour / reactive market behaviour
- price leadership / price following
- price seeking / price stickiness / non-price competition

[15]

13.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these and/or other issues in the time available.

Issues and areas for discussion include:

Introduction:	• the meaning of profit • profit maximisation as an objective ($MC=MR$) • other possible objectives, eg ◦ Revenue / sales maximisation ◦ Output maximisation ◦ Welfare maximisation (supply maximisation / public service) ◦ Satisficing
Developing a response to the question:	• Reasons why small firms might be more profit-orientated, eg ◦ Entrepreneurial attitudes ◦ Need profits to grow (fewer sources of finance than large firms) • Reasons why large firms might become less profit-orientated, eg ◦ Inertia / lack of competition ◦ A 'quiet life' (wish to avoid attention from competition authorities) ◦ Greater divorce between ownership and control
Evaluation:	• consideration of why one of the other possible objectives might increase in importance (eg Bill Gates focuses on charitable activities, leaves profit chasing to others) • questioning whether profit maximising becomes less important (eg <i>Ryanair</i> appears to follow every possible opportunity to charge new prices) • possibility that many firms, large or small, follow a range of objectives • and that none of the other objectives are possible if a firm is unprofitable • short term / long term perspectives on the importance of profit maximisation

[25]

14.

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these and/or other issues in the time available.

Issues and areas for discussion include:

Introduction	• distinction between mobility and flexibility • mobility: occupational, geographical • flexibility: hiring and firing, skills, etc.
Developing a response to the question:	• Costs to UK economy, eg ◦ Wages depressed by cheap influx of labour ◦ Shortages re-appear when migrants return home ◦ Loss of spending power when earnings are repatriated • Benefits to UK economy, eg ◦ Better information ◦ Recognition of UK qualifications in EU ◦ Job opportunities in EU for UK workers ◦ Possible harmonisation of working conditions, tax rates, pension rights, health services ◦ Skills gaps filled ◦ Labour shortages alleviated
Evaluation:	• benefits versus costs • discussion of the 'proper' role of government / NHS / other bodies • Consideration of monetary / non-monetary factors (Extract F suggests that a 'scheme' was considered necessary to attract dentists) • complications arising from cross-border movements, eg ◦ 'British jobs for British workers' ◦ Difficulty of long-term stability, when workers can leave as easily as they can arrive ◦ Effects on economic welfare in the countries that dentists / other workers leave (the question is UK centric, but there is such a thing as 'interdependence' – what if other countries respond by trying to 'poach' key UK workers?) • Other considerations ◦ Pressure on housing / schools and benefits ◦ Possible multiplier effects ◦ Implications for government tax revenues ◦ Impact on wage inflation and economic growth

	◦ Significance of 'flexibility' in general. <i>Examiners should note that it may be possible to award some marks for basic evaluation such as consideration of a number of pros and cons. However, this must be considered as lowlevel evaluation and rewarded accordingly. Stronger evaluation would prioritise the benefits and costs, and / or give economic reasons for justifying a judgement on, for example, whether benefits generally outweigh costs, or whether large firms on balance benefit more than small firms.</i>
Also give credit for:	• relevant use of evidence and examples not contained in the data • diagrams • an overall judgement on the issues raised • use of data

[25]

15.

Analyse **two** effects of technological change which either increase or reduce barriers, for example:

- an argument to the effect that digital/ virtual products are 'weightless' (this word need not be used) and can be brought to market/ retailed at lower cost than traditional, physical products thus reducing entry barriers, increasing competition.
- economies of scale are less important when small firms can have easy access to mass markets through the internet, thus reducing barriers
- technological change can increase the influence of product differentiation, eg by monopolising a new industry format (Blu-Ray), or building in features to thwart industry-wide standards (mobile phone chargers, printer ink cartridges); all the above increasing barriers
- the question refers to Extract B. However, it is perfectly legitimate for candidates also to refer to Extract C where there is mention of legal barriers. Technology can be used to support these and therefore reinforce barriers to entry and restrict access to products (make them more excludable), eg through encryption (satellite TV). On the other hand, technology can be used (often illegally) to circumvent barriers.

[9]

The issues identified below are intended to provide an indication of some of the areas which might be discussed. Candidates can only be expected to consider a few of these and/or other issues in the time available.

Issues and areas for discussion include:

Introduction	• definition of monopoly • examples of monopolies • explanation of 'legally backed' monopoly (IPR as an entry barrier) • discussion of the idea of 'public interest'
Developing a response to the question:	• General advantages / justification of monopolies (economies of scale, etc) • IPRs are justified because ◦ They support the creative industries ◦ Reference to economic importance of these industries (Extract C) ◦ Innovation, creativity, dynamic efficiency ◦ Return on risky investment • Arguments against 'stronger action' (general arguments against monopoly applied to the specific case of IPRs), eg ◦ Artificially high prices ◦ Loss of efficiency ◦ Reduced consumer choice
Evaluation:	• role of government / legal sanctions • market failure versus government failure • producer versus consumer sovereignty • alternatives to the legal approach, eg ◦ Regulators ◦ Leave it to market forces ◦ The need for international / global action / agreement <i>Examiners should note that it may be possible to award some marks for basic evaluation such as consideration of a number of pros and cons. However, this must be considered as low-level evaluation and rewarded accordingly. Stronger evaluation would prioritise the arguments for and against, and/or give economic reasons for justifying a particular policy decision.</i>
Also give credit for:	• use of data • relevant use of evidence and examples not contained in the data

- | | |
|--|--|
| | <ul style="list-style-type: none">• diagrams• an overall judgement on the issues raised |
|--|--|

[25]

Issues and areas for discussion include:

Introduction	- reasons why oligopolists might be considered to need regulation, eg - complex monopoly - anti-competitive practices - allocative inefficiency.
Developing the response to the question: Application / Analysis	- policy options, advantages and disadvantages, eg - ending oligopoly, breaking up larger firms into smaller ones - amending oligopoly - policing collusive activities, fining colluding companies (the EU approach) - use of criminal law (the US approach) - administrative means for investigating monopolies and mergers (the traditional UK approach) - preventing potential monopolies becoming actual monopolies by restricting merger activity among oligopolies - regulation - privatisation / nationalisation - removal of barriers - consequences of policy options, e.g. for - research and development - consumer and producer surplus - productive and allocative efficiency - dynamic, static efficiency - barriers to entry - scale economies - national / international competitiveness - employment.
Evaluation	Consideration of - effectiveness of different types of policy - effectiveness of individual policies - intended and unintended consequences - the option of allowing market forces to work without government intervention (the IBM / Microsoft argument). - market vs govt failure - contestability of market. <i>Examiners should note that, for some of the weaker or average students, parts of the above represent quite sophisticated evaluation</i>

	<i>and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• diagrams • an overall judgement on the issues raised

It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

Issues and areas for discussion include

Introduction	• definitions of 'large' and 'small' firms • problems of comparison, e.g. capital intensive and labour intensive firms • definitions of efficiency.
Developing the response to the question: Application / Analysis	• discussion of efficiency • advantages of large firms ◦ internal economies of scale • types • effects on costs • external economies ◦ effects on large and small firms • disadvantages of large firms ◦ diseconomies of scale ◦ X inefficiency (note, this is not actually in the specification) ◦ divorce of ownership and control • less clear objectives • size and market structure • advantages of small firms ◦ impact of technology ◦ divisibilities of capital.
Evaluation	• significance of large firms, eg ◦ output ◦ market share ◦ efficiency, dynamic, static • significance of small firms, eg ◦ employment ◦ entrepreneurship and innovation ◦ niche markets ◦ personal service • effects of changes in markets and technology, eg ◦ divisibilities ◦ internet trading ◦ mass production versus mass customisation; dozens of markets of millions versus millions of markets of dozens. <i>Examiners should note that, for some of the weaker or average</i>

	<i>students, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Evaluation	• diagrams • an overall judgement on the issues raised

It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

21.**Issues and areas for discussion include:**

Introduction	• profit as a factor reward • rationale for profit maximisation • explanation of profit maximisation.
Developing the response to the question: Application / Analysis	• influence of the ownership/control 'divorce' • size/complexity of firms • alternative objectives, eg ◦ maximisation of ▪ sales ▪ output/production ▪ revenue ▪ social welfare ◦ minimisation of ▪ money costs ▪ social costs ◦ satisficing behaviour • circumstances when different objectives might be appropriate • consequences of different objectives.
Evaluation	• feasibility of some or all of the possible objectives, (eg are firms able to track their marginal costs and revenues as accurately as theory suggests?) • inter-industry differences, e.g. manufacturing versus services; private versus public sector • are objectives exclusive?, or ◦ can several objectives be followed at once? ◦ are any objectives possible without profits being made? • short/long run objectives. Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.
Also give credit for	• relevant use of examples • diagrams • an overall judgement on the issues raised.

[25]

22.

For relevant definitions / descriptions, eg:

- oligopoly
- cartel
- collusion.

Interdependence refers to the idea that when making price and output decisions oligopolists have to consider not only how customers might react but also how rival companies might react; if a firm raises price, other firms might not follow suit; if it reduces price it might spark a price-cutting war this interdependence gives an elastic demand curve for price increases and an inelastic curve for price reductions and can lead to price stickiness and a kinked demand curve.

Uncertainty identified and explained, effects on total revenue; price seeking behaviour; price leadership, game theory, collusion.

Any other relevant issue, e.g. the presence of externalities which might result in an inefficient equilibrium.

Use of diagrams to help support explanations.

[15]

23.

For relevant definitions, eg

- normal/supernormal profits
- short run/long run

- Barriers to entry are a reason. These can include patents which are relevant to pharmaceuticals; they reduce competition and allow a degree of monopoly preventing prices from falling in the long run and thus maintaining supernormal profits.
- Structure of the industry, product differentiation, imperfect knowledge, technological change collusion, limit pricing etc.

Use of appropriate diagrams to help support explanations, e.g. monopoly and/or perfect competition diagram accompanied by analysis of the effects of entry barriers

[15]

Issues and areas for discussion include:

Introduction	- the characteristics of a market - the meaning of 'contestability', e.g. a market where firms can enter or leave easily so that firms face competition from potential entrants - types of government intervention - types of competition.
Developing the response to the question: Application / Analysis	- examples of markets that are non-contestable and contestable - non-contestable: domestic piped water (natural monopoly) - contestable: bottled mineral water; - contestable markets in terms of - structure - performance - conduct. - could be argued that budget air travel is more contestable than full-service air travel - strategies for firms in contestable markets, - legitimate/legal strategies - eg limit pricing - illegitimate/illegal strategies - eg collusion - contestable markets and oligopoly - cartels 'gaming behaviour - government influence on contestability, eg - competition policy - franchising, e.g. ensuring a new operator for the National Lottery could enter with minimum cost, and an existing one leave without penalty - use of law, regulation.
Evaluation	- government intervention might still be necessary due to abuse of monopoly power, even if the market is contestable - the possibility that an industry that looks monopolistic or oligopolistic in terms of scale or structure might actually behave very competitively in certain aspects, e.g. the car industry supplying the global market for family cars - the effects on conduct (eg persuasive/informative advertising, product differentiation) and performance (costs, efficiency,

	externalities) - the issue of whether small firms are necessarily more competitive than large firms - government/market failure issues. Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.
Also give credit for	- relevant use of examples - diagrams - an overall judgement on the issues raised.

[25]

25.

For relevant definitions, e.g. competition, efficiency

Award one mark for each step in a logical chain of argument up to 15 marks, for example

- Allocative: Perfect competition leads to an efficient allocation of resources. Price = marginal cost so that producers are compensated for the effort of production and consumers receive benefit both of which are reflected in the price. Movement away from this equilibrium rewards one group at the expense of the other.
- Productive efficiency arising out of competition, marginal cost = average cost, average cost minimised

Use of appropriate diagrams to help support explanations, e.g. LR equilibrium under perfect competition, monopoly equilibrium

Maximum of 10 marks if only one of the types of efficiency in the question is considered.

[15]

1.

‘Critics of the Big Six might argue that electricity companies should not have been privatised as they can never behave or perform like supermarkets.’
(**Extract C**, lines 15–16).

Using the data and your knowledge of economics, assess the arguments for and against the UK electricity industry being brought back into public ownership.

[25 marks]

2.

In January 2012, a BBC consumer programme reported that British nationals living in Florida were paying £3000 for a return flight to London, while the same airline was charging British tourists flying from London £300 for a return flight to Florida.

Explain the market conditions that enable firms to charge different customers different prices for a product.

[15 marks]

3.

Assess whether price discrimination is always undesirable.

[25 marks]

Extract B: Supplying the energy market: the case of Milford Haven

For hundreds of years, the harbour of Milford Haven in West Wales has responded to changes in the global economy. It has accommodated many global activities, including trade, defence, transport and tourism. These activities are often in potential conflict with the environment. Although it is surrounded by the Wales coastal footpath and the *Pembrokeshire National Park*, Milford Haven contains two massive oil refineries, several leisure marinas, an international car ferry port and quays for what little remains of the West Wales fishing industry.

Milford Haven Port Authority (MHPA) is a nationalised enterprise, accountable to the *Department of Trade and Industry* in London. Ports have often developed historically as 'public works' due to their strategic importance and because of the large amount of investment needed to build port installations. Governments are trying to reduce the size of the public sector in order to improve efficiency and competition. However, given the activities with which it is involved, there are commercial and wider economic and social arguments against a body such as the MHPA being privatised. For example, the MHPA has argued that privatisation would reduce its ability to take part in infrastructure projects in public-private partnerships. These partnerships involve a variety of companies and government bodies at local, regional, national and international levels.

A major strategy adopted by the MHPA involves anticipating and reacting to changes in the global energy market. The boom years of North Sea oil and gas, which created high wages in skilled jobs for northern ports such as Aberdeen, are drawing to a close. Global oil and gas markets are often concentrated markets. For this reason, as well as for reasons of ensuring security of supply, new sources such as biofuels and other diverse forms of energy are being sought.

The MHPA, together with the UK government, has negotiated a long-term deal with the government of Qatar in the Arabian Gulf for the supply of liquefied natural gas (LNG). This is sent to Milford Haven in refrigerated container ships and then stored in huge tanks at the port. When the gas is warmed up, it expands to 600 times its liquefied volume. The gas is sent through a new pipeline to a pumping station 150 miles away in Gloucestershire. It is then distributed into the UK national grid for industrial and domestic use. This is an example of a public-private partnership in action.

The distribution of fuels such as gas and oil involves some negative externalities. There was controversy when the new pipeline was laid through attractive Welsh countryside, including the *Brecon Beacons National Park*. Some 15 years ago, the oil tanker *Sea Empress* sank near the entrance to Milford Haven and it took the local economy several years to recover from the environmental impact of the resulting pollution. Given the recent environmental experiences of BP in the Gulf of Mexico, environmentalists are concerned about the possibility of some sort of disaster arising from the storage or movement of LNG.

There are also concerns about the UK's possible over-reliance on a single product (LNG) from a monopoly source (the state of Qatar) and a single distribution channel (the Pembroke-Gloucester pipeline). Supporters of the MHPA strategy claim that the LNG business actually aids consumer choice and competition through diversification, adding gas installations to the existing oil and renewable energy installations in and around the port. The MHPA states that safety and the prevention of environmental incidents are the 'most important priorities' of their business.

Sources: news reports and industry information, 2010

5.

'Most people would say that the ending of the BT telephone monopoly, and competition in the telecommunications market, have been beneficial. However, Britain's railways show why some monopolies should not be replaced by a number of competing firms.'

Evaluate the view that consumers are always better off and producers are always worse off if monopolies are broken up to encourage as much competition as possible.

[25 marks]

6.

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]

7.

Explain why the average and marginal revenue curves of a perfectly competitive firm are horizontal, while those of a monopoly slope downwards.

[15 marks]

8.

'While some economic theories become dated, the theory of perfect competition has become more realistic over time.'

Discuss whether technological developments, such as the internet, are making markets more competitive and making perfect competition theory more realistic.

[25 marks]

9.

Explain why a perfectly competitive firm might be regarded as statically efficient while a monopoly might be regarded as dynamically efficient.

[15 marks]

10.

'Consumers might have doubts about the effectiveness of regulators such as OFGEM' (**The European Union Context Extract E**, line 13).

Using the data and your economic knowledge, assess methods that could be used by the UK government and the EU to promote competition in the supply of domestic gas.

[25 marks]

11.

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]

12.

Explain what is meant by an 'oligopolistic market' (**Extract F**, line 14) **and** analyse why such a market might lead to 'sticky' gas prices (**The European Union Context Extract E**, line 16).

[9 marks]

13.

THE EUROPEAN UNION CONTEXT

Extract F: The 'Butane Man'

One reason why it is difficult to regulate gas in the same way across all 27 member states of the Single European Market is that most EU states do not have well-developed pipeline distribution networks. Spain, Portugal, Greece and Ireland are leading the way in the process of catching up. In Spain, for example, where most of the population live near town centres in apartments that were built some time ago, there has been a strong tradition of using liquid petroleum gas (LPG). The 'Butane Man', who regularly delivers gas cylinders to households, has much the same standing in popular culture as the traditional 'milkman' in the UK. A recent proposed strike by butane delivery workers was regarded as a very serious threat by Spanish media, government and consumers. 1

Putting homes onto the gas mains is least costly when new housing estates are being built, meaning that such houses can all be connected at the same time. It is often forgotten that there are over 4 million homes in the UK not connected to gas mains and which therefore rely on deliveries of LPG. It would also appear that the market for LPG is a highly concentrated oligopolistic market, with just four main suppliers: Shell, BP, Calor and FloGas. However, the market is unregulated and, according to OFGEM, this is because it is not dependent on a pipeline and therefore is 'not a natural monopoly'. 5

However, in 2011, a BBC consumer affairs programme alleged that these companies were carrying out anti-competitive practices, such as locking consumers into long-term contracts, and that a smaller new entrant, Extra Gas, was the only company with transparent prices on its website. The programme found 30 houses in one neighbourhood all paying different prices, ranging from 35p to 52p per litre, with companies apparently charging the highest prices to customers using the least gas. While their MP called for OFGEM to get involved, one group of 51 households in a village in Devon saved £14 000 a year between them by forming a buying group and negotiating a single contract with a petroleum gas supplier. 10

20

Sources: news reports, 2011

14.

THE EUROPEAN UNION CONTEXT

Extract E: Getting gas to market

In the EU as a whole, there are over 72 million domestic consumers of piped natural gas. The largest consumers of piped gas are Belgium, France, Germany, Italy, the Netherlands and the UK. In the UK, six energy companies control 99% of the market for natural gas. *British Gas*, the privatised utility, dominates the market with over 50% market share. There are no signs, at present, of any significant new entrants to the market. 1

The EU Commissioner for Energy has called for the 'Europeanisation' of energy policy. The Commissioner argues that it is necessary to assure all EU consumers that their energy sources are safe, competitive, efficient and sustainable. To help achieve this, the *Agency for the Cooperation of Energy Regulators* (ACER) was launched in 2011 as an agency of the EU. At present, it has an advisory and coordinating role across the EU, rather than a regulatory one. In the UK, The *Office for Gas and Electricity Markets* (OFGEM) is the main regulator for piped natural gas. 5

Consumers might have doubts about the effectiveness of regulators such as OFGEM. In August 2011, price increases averaging 18% were announced for piped natural gas, while general inflation was 4.5%. Observers noted that, while wholesale prices were volatile, domestic retail prices tended to follow them upwards and then became 'sticky' and unlikely to follow them downwards. One problem is that there is very little storage capacity in the UK. OFGEM does not directly regulate prices, and is far more concerned with the ease with which consumers can switch between suppliers. 10

15

Sources: news reports, 2011

15.

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]

16.

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]

17.

Explain the distinction between 'monopsony power' and 'oligopoly' (**The European Union Context Extract E**, line 5) **and** analyse how the market power of supermarkets can affect the profitability of dairy farms.

[9 marks]

18.

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]

19.

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]

20.

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]

21.

The European Commission prevents mobile phone networks from colluding on ‘roaming charges’ when consumers travel around Europe. Meanwhile, the EU has forced mobile phone manufacturers to cooperate in making a single design of phone charger.

Evaluate the view that governments should never intervene to influence how oligopolists collude or cooperate on such issues as fixing prices, varying output, conducting research, developing products, or carrying out any other aspect of their business.

[25 marks]

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. 1

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. 5 10

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. 15

Sources: news reports and government information, 2012

23. THE EUROPEAN UNION CONTEXT

Extract E: British milk from British cows

Milk is the single largest part of the UK agricultural sector by value of output. Almost all the milk in the UK is purchased by just six major processors who then sell on to a market dominated by five or six large supermarket chains. UK dairy farmers complain that while they have to act competitively as price takers, there is a combination of some degree of monopsony power and oligopoly standing between the farms and the public. They claim that dairy processors have too much power when they buy milk from the farms and, in turn, the market for the processors' output is dominated by the buyers working for large, powerful supermarkets, which then sell to the public as oligopolists. 1 5

The supermarkets argue that British producers are in a weak position because alternative sources of cheap milk are available for import. The farmers claim that this argument is unsustainable because, if they were forced into bankruptcy, consumers would have no alternative but to buy imported milk which would no longer be offered at low prices. 10

In 2013, there were concerns about complicated supply chains across Europe resulting in a lack of traceability in meat products, leading to problems such as supermarket beef burgers containing horse meat. If more dairy farms go out of business, similar problems might occur with milk. 15

Sources: news reports and government information, 2013

24. Explain how the determination of prices and output by oligopolists is affected not only by the reactions of their customers, but also by their interdependence with other producers.

[15 marks]

25.

'The internet has benefited small firms and has helped to make some markets more competitive.'

Explain why this might be the case.

[15 marks]

1.

Candidates can approach the question with a focus on the UK government or government in general. Either approach can gain full marks.

Issues and areas for discussion include

Introduction	- Definitions/descriptions of, e.g. - Privatisation - Public ownership - Regulation - Nationalisation/re-nationalisation.
Developing the response to the question: Application	- Comments from own economic knowledge or based on the data, e.g. - Further comments on Extract A, (apparent disconnect between costs and prices) - Profit margins, the structure of the privatised industry, role of small firms (Extract B) - Labour costs (Extract C) - Prompts in the question, e.g. dominant large scale multinationals, profit margins, blurred lines between wholesale and retail markets.
Developing the response to the question: Analysis	- Arguments for re-nationalisation, e.g. - Complicated structure of the industry - Low price elasticities of demand (few alternatives for the consumer) - Asymmetric information - Natural monopoly - Economies of scale - Profits for infrastructure instead of shareholder value - Commanding heights'/national security arguments - A need for regulation - Arguably a greater chance of energy conservation, insulation, etc. (privatised concerns may have a vested interest in selling more energy). - Arguments against re-nationalisation e.g. - Efficiency - Competition - No guarantee of lower prices - Encouragement of new entrants - Cost implications - Burden on taxpayers.

Evaluation	• 'Rip-off Britain' monopoly versus competition • Market-based policies versus government intervention • Market failure versus government failure • Price transparency versus price opaqueness (asymmetric information) • Role of price elasticity of demand for an essential service (special case of older customers) • Profit margins; validity of comparisons with supermarkets • Better evaluative answers will move beyond general and basic arguments for and against privatisation, and will look at the specifics of the electricity industry. Some prompts are given in the final paragraph; some or all of these could be addressed. <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• Relevant diagrams • An overall judgement on the issues raised.

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above

[25]

2.

Relevant issues/logical chains of analysis include:

- relevant definitions, eg price discrimination, market conditions, monopoly
- Some extent of monopoly power or other market imperfections such as barriers to entry or a lack of consumer information or a break in the chain of substitutes so that firms are not price-takers instead they can set prices and/or operate opaque or complex pricing
- Consumers with identifiable characteristics, such as age, location, club membership, separable into different markets with no arbitrage/transfer/seepage between markets; costs of separating markets and/or keeping them separate must not exceed the potential gains to the producer
- Different price elasticities of demand; possible reasons for these differences
- Different degrees of price discrimination.
 - First: each individual pays their maximum price
 - Second: price varies with quantity demanded
 - Third: consumers are segmented in to groups

[15]

Issues and areas for discussion include:

Introduction	further discussion of the meaning of price discrimination eg reference to the importance of costs.
Developing the response to the question (application) /analysis)	Application • further examples of p.d. for instance ◦ adult and child fares • examples which are not p.d, for instance ◦ first class and second class train fares (cost differences, not quite the same product) • price discrimination and revenue maximisation or 'yield management' (this phrase is not in the specification) • business models using price discrimination to manage their revenues, eg the low-cost airlines, budget hotels. Analysis • reasons for p.d, eg ◦ to increase profits ◦ to turn a loss-making product into a profitable one ◦ to cross subsidise, so that a good or service is provided which would otherwise be unprofitable ◦ spread fixed costs ◦ gain economies of scale. • effects of p.d, eg ◦ loss of consumer surplus ◦ consumer surplus becomes producer surplus. • advantages to the consumer, eg ◦ can make some products more affordable (eg budget airlines) ◦ can provide a good or service where none was available before p.d. • disadvantages, eg ◦ consumers forced to pay the maximum they are willing to pay; loss of real income, possible elimination of consumer surplus.
Evaluation	• discussion of advantages versus disadvantages • who gains/who loses • instances where price discrimination is linked to social discrimination (different groups in society discriminated against through higher prices) • the link with monopoly • question of possible government intervention • short run versus long run • use of word 'always.' <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has</i>

	<i>been made to display that skill.</i>
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Also give credit for	• diagrams • an overall judgement on the issues raised. • examples.
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It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

Issues and areas for discussion include:

Introduction	definitions of monopoly, competition. Examples.
Developing the response to the question (Application)	- candidates might use some pre-existing knowledge of telecommunications and/or the UK railway system. They might mention Network Rail, the train operating companies (TOCs) and the rolling stock companies (Roscos) - equally, they might have a general appreciation that some organisations require central direction and coordination, and benefit from having a 'general' at the apex of a decision making pyramid. They can argue that railways are in that category, due to the need for coordination in terms of ticketing, timetabling. Long term investment, etc - the question is worded so that candidates can achieve full marks without reference to telecoms or railways, but can cite other examples.
Developing the response to the question (analysis)	- basic concepts, producer surplus, consumer surplus - basic idea that monopolists reduce output to push up price consumer surplus becomes producer surplus - there is also a deadweight loss - welfare transfers and welfare losses between producers and consumers when monopolies are broken up - without consideration of scale economies - with consideration of scale economies - effects of wider considerations, eg technological change employment, international competition - natural monopoly - efficiency concepts: productive, allocative.
Evaluation	- consideration of the word 'always' contained in the question - question of whether breaking up a monopoly leads to 'perfect' competition, or merely replaces a monopoly with an oligopoly - public versus private sector - the role of government, regulators - occasions where monopoly is arguably in the consumer interest, eg when copyrights, designs, patents, grant a limited monopoly in order to encourage innovators to share their ideas - occasions when patents etc are used to restrict competition and work against the consumer interest, eg when biotech companies attempt to 'patent' genetic information or types of seed - efficiency econs of scale, natural monopoly - market failure/resource allocation. <i>Examiners should note that, for some of the weaker or average students, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>

Also give credit for

- diagrams
- an overall judgement on the issues raised.
- examples.

It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

Issues and areas for discussion include

Introduction	• Description of 'market forces' in housing ◦ perfect competition ◦ resource allocation ◦ efficiency
Developing the response to the question: Application/ Analysis	Application ◦ consequences of the assumptions of perfect competition ◦ price taking behaviour ◦ short run equilibrium, incentives to expand or contract ◦ long run equilibrium, price = MC; MC = MR; AC = AR ◦ productive and allocative efficiency Analysis • Market success: consumer and producer surplus ◦ Market failures: dominant firms; externalities; lack of public goods/services; merit goods ◦ Lack of economies of scale.
Evaluation	• Do firms and consumers really have perfect knowledge, e.g. of marginal costs and benefits? ◦ Asymmetric information, are decisions really made on the margin? ◦ Monopoly and monopsony ◦ Merit and demerit goods ◦ Externalities/social optimum ◦ Non-monetary considerations ◦ Static/dynamic efficiency/Economies/diseconomies of scale ◦ Is perfect competition a value laden concept (note the word 'perfect')? ◦ Can all goods and services (e.g. roads, health) be treated as consumer goods, when they have significant spill-over effects? ◦ Situations where the supplier needs to be 'de-centralised' and close to the consumer, to cater for consumer preference, choice, etc.: e.g. few would argue that the government should run our supermarkets. ◦ Situations where some degree of 'centralised' command & control and/or coordination and/or strategic forward planning is necessary: e.g. should competing companies be running our railways? <i>Examiners should note that, for some of the weaker or average</i>

	<i>candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• Diagrams ◦ An overall judgement on the issues raised ◦ Examples.

It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

7.

Relevant issues/logical chains of analysis include:

- relevant definitions, eg average revenue, marginal revenue, perfect competition (eg large number of buyers and sellers), monopoly (single/dominant firm)
- Perfect competition: the firm is small compared to the industry with no entry/exit barriers and is therefore a price taker it can clear its production lines if it sells at the current market price. Since it can clear production lines at the current market price it would be irrational (assuming profit maximisation) to sell below that price. If the seller tries to sell above the market price, demand will disappear (or price elasticity of demand is infinity), because of perfect knowledge and homogeneous products (or products being perfect substitutes. While the market demand curve is downward sloping the seller-perceived demand curve (demand curve for the output of the firm) is horizontal and therefore $AR = MR$
- Monopoly: the firm is the industry and the firm has some control over price; the downward sloping market demand curve is the firm's average revenue line. Because the firm reduces price to increase quantity demanded or increases price to reduce quantity demanded MR also slopes downwards and MR is less than AR at each level of quantity
- Geometrical relationships
- diagrams to support the explanation, eg AR and MR for perfect competition and monopoly

[15]

Issues and areas for discussion include

Introduction	• basic assumptions of perfect competition theory, eg perfect knowledge, homogenous products, entry barriers, no. of buyers and sellers. • basic assumptions common to other theory, eg rational behaviour, profit maximisation.
Developing the response to the question Application/ Analysis	• Reasons why some assumptions may be unrealistic eg ◦ highly technical products (imperfect knowledge); ◦ product differentiation/branding/persuasive advertising • Reasons why theory can go out of date, eg ◦ large numbers of small firms being merged, becoming more monopolistic • Possible effects of technology such as the internet, supporting competition e.g. ◦ Improving information flows ◦ Removing barriers to entry ◦ Reducing advantages of scale economies (small firms on eBay, Amazon small bookshop partners) • Technology supporting theory in a practical sense, eg ◦ Computers helping firms to track marginal costs and revenues, therefore supporting the $MC = MR$ assumption.
Evaluation	• internet may support price discrimination eg budget airlines • the internet allows some monopolies to emerge and grow, eg Google, Microsoft • however, some dominant firms on the internet challenge traditional monopolies (half of Amazon profits come from books whose sales are too low for Waterstones, Smiths, Tesco etc to handle) • contestability • relevance of legal restrictions (copyright, designs, patents). <i>Examiners should note that, for some of the weaker or average students, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• diagrams • an overall judgement on the issues raised • examples.

It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

9.

- Relevant definitions, eg perfect competition, static efficiency, monopoly, dynamic efficiency.
- Perfect competition and static efficiency, eg because perfect competition involves price taking, the seller-perceived demand curve is horizontal, so that when the industry is in equilibrium $P = MC$ giving allocative efficiency, and $P = MC$ where AC is minimised, giving productive efficiency. The structure of the industry gives static efficiency due to price seeking behaviour which drives down costs by eliminating inefficient firms.
- Monopoly and dynamic efficiency, eg an argument that monopolies tend to be large, and achieve economies of scale; over time, large firms can devote more resources to research & development and so achieve dynamic efficiency.

ALTERNATIVELY

- perfect competition and monopoly discussed together in a comparative way
- other relevant arguments, eg the possibility of a 'tradeoff' between static and dynamic efficiency
- why monopolies may not be dynamically efficient/perfect competition may not be statically efficient.
- **Use of diagrams to support the explanation:** A complex diagram, eg showing perfect competition and monopoly together, can be rewarded

[15]

10.**Issues and areas for discussion include:**

Introduction	• definition of ‘competition’ • differences between gas and other commodities • regulation explained/defined.
Developing the response to the question (Application)	• use of theory (monopoly) • discussion based on information from the data related to market conditions, eg price changes (Extract D) ◦ market share (Extract E) ◦ piped gas and LPG/natural monopoly (Extract F) ◦ candidate’s own knowledge of relevant issues.
Developing the response to the question (Analysis)	Policies aimed at increasing competition, examples, effects eg • competition policy • privatisation • deregulation vs regulation • removing entry barriers • public/private partnerships • contestable markets • increase the scope of OFGEM, eg to cover LPG supplies • direct price controls • simpler/more transparent price tariffs.
Evaluation	• efficacy of OFGEM • question its focus on ‘natural monopoly’ • what use is ‘switching’ if tariffs are complicated? (price transparency) • infrastructure investment (data mentions lack of storage. Gasholders would help reduce price volatility) • should regulators directly regulate price? • should regulation operate at a national or EU level? • advantages/disadvantages of each method, eg ‘regulatory capture’. <i>Examiners should note that, for some of the weaker or average students, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• diagrams • an overall judgement on the issues raised.

It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

Issues and areas for discussion include

Introduction	• Definitions of, eg. ◦ monopoly policy ◦ long run ◦ abuse of power.
Developing the response to the question Application/ Analysis	Application • Policy options, eg ◦ ending monopoly (losing advantages as well as disadvantages) ◦ amending monopoly (keep advantages, control disadvantages, through regulation/taxation/other means) ◦ remove barriers to entry or other market imperfections. Analysis • basic criticisms of monopoly (eg efficiency, deadweight losses) • basic defence (eg econs of scale) • basic arguments in favour of competition policy • relevant concepts, producer surplus, consumer surplus • welfare transfers and welfare losses between producers and consumers when monopolies are broken up ◦ without consideration of scale economies ◦ with consideration of scale economies • effects of wider considerations, eg technological change employment, international competition • efficiency concepts: productive, allocative • contestability; • “creative destruction”

Evaluation	• Question of whether breaking up a monopoly leads to 'perfect' competition, or merely replaces a monopoly with an oligopoly. • The role of government, regulators • Occasions where monopoly is arguably in the consumer interest, eg when copyrights, designs, patents, grant a limited monopoly in order to encourage innovators to share their ideas • Occasions when patents etc are used to restrict competition and work against the consumer interest • The greater divisibility of many modern technologies, eg PCs and laptops replacing large business machines. MES moves to the left on a LRAC graph, when there is an absence of indivisibilities • Market forces along with technical change have made computer technology affordable to the masses • Similar experiences with other products, eg audio-visual, phones • Whether the experience of the computer industry is of wider significance in all cases • Question the 'will not last'. Is it the case they can't abuse monopoly power? • Maybe IBM was effectively targeted by anti-monopoly policy • This question is worded to allow high evaluation scores for a focus on examples other than the computer industry. <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• Diagrams • An overall judgement on the issues raised. • Examples.

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above.

[25]

12.**Issues and areas for discussion include:**

- Relevant definition/explanation, eg a market where a small number of firms account for a high proportion of sales or another dimension of economic importance in an industry. Reference to concentration ratios.
- Analysis of reasons for price stickiness, for example:
The suppliers are an oligopoly and adopt the oligopolist's price seeking behaviour, having to judge not only consumer reactions to a price change, but also competitor reactions, fearing that they face elastic demand for a price increase, and inelastic demand for a price decrease, either way losing total revenue.
 - price leadership;
 - cartels/collusion/other relevant monopoly points
 - admin costs
 - implications of lack of storage capacity (mentioned in the data)
 - reward explanation of 'asymmetric' stickiness (prices rising more readily than they fall) as this is likely to be quite sophisticated, eg asymmetric barriers to entry and exit causing asymmetric competitive pressure (it's easier to leave the market than enter it, so existing firms are more likely to leave when costs and prices are rising than new firms are likely to enter when costs and prices are falling).
- Appropriate use of diagrams, eg kinked demand curve; game theory matrix.

[9]**15.****Relevant issues/logical chains of analysis include:**

- **relevant definitions** eg infrastructure, investment, product markets, labour markets, general technical
- **explanation** of effects on labour and product markets
- The short run (construction phase) will create a demand for the labour of workers directly involved in making the new railway, and also spin-off jobs in firms supplying components and materials
- In the long run (operational phase) reduced journey times for commuters will increase viable travel-to-work distances However, the increased demand might be London based rather than based in the northern cities, so might increase the north-south labour market divide
- Short run (construction phase) the demand for raw materials, components, rolling stock, etc.
- Long run (operational phase): more efficient HS2 line takes pressure of conventional lines, so all lines help get goods and freight to market, more quickly.
- diagrams to help support explanations, eg supply of and demand for labour, and/or goods and freight.

[15]

16.

Relevant issues/logical chains of analysis include:

- **relevant definitions**, eg monopoly, monopoly power
- **Barriers to entry** affecting the **number of competitors**, these can include legal barriers, such as patents/copyright; set up costs; economies of scale. These barriers might be deliberate, eg supported by government, or might be inherent in the nature of the product or a 'natural monopoly' such as water. Monopolies might be a single firm or created by a 'collusive' or 'complex' monopoly during the production stage or a 'cartel' at the selling stage (1mark). Cartels are generally illegal
- **NOTE:** Several individual **barriers to entry**, for example economies of scale, minimum efficient scale, can be regarded as 'sources' and expanded for further marks.
- **Advertising and product differentiation** aimed at creating real or imagined differences between products through branding and image building, reducing the price elasticity of demand by convincing consumers that products are less homogeneous than they really are
- **Other market imperfections**, eg lack of consumer information, minimum efficient scale, international trade barriers, a break in the chain of substitutes, natural monopoly
- diagrams to support explanations, e.g oligopoly/monopoly/minimum efficient scale (M.E.S.)

[15]

17.

Relevant issues/logical chains of analysis include:

- defining/distinguishing, for example between monopsony (a single buyer) and oligopoly (competition among a few sellers)
- monopsony: profitability depends on costs and revenues while firms face rising costs changing with market forces, revenues may be depressed by uncompetitive practices by dominant buyers in the supply chain. Perfect competition theory assumes a large number of buyers and sellers buyers and sellers reach an equilibrium price through market forces and no individual buyer or seller is able to influence price by their own actions. Monopsony swings the balance of power from the sellers to buyers who are able to bid down the price since buyers know that sellers have fewer alternatives
- oligopoly: Price seeking behaviour, price stickiness, etc on the part of supermarkets, and their effects on producers further along the supply chain
- the power exerted by a handful of supermarket buyers
- the answer can address the profitability of farms or dairies (processors) or both
- appropriate use of diagrams, eg demand curves related to monopsony/oligopoly

[9]

18.

Candidates do **NOT** have to discuss the effects of both the size of firms and structure of the market for full marks.

Issues and areas for discussion include

Introduction	Basic definitions/descriptions of ownership, control, structure (eg. competition/monopoly) barriers), conduct (eg pricing behaviour); performance (eg productive/allocative efficiency).
Developing the response to the question Application/ Analysis	Application • Candidates might approach the information in the stem from the angle of perfect/imperfect competition, price taking versus price making, or product differentiation. • They could also elaborate on the possibility of some element of price discrimination taking place here. Analysis • Using the basic information given in the quote, and making reasonable assumptions, candidates can analyse the Cafe scenario. They might also use examples from other industries to support the cafe example. They can comment, for example, on ◦ ownership and control together: profit maximising ◦ divorce of ownership from control: alternative objectives ◦ structure • number of firms • size of firms • entry conditions • location. ◦ Conduct (Behaviour) • pricing taking/price making/price seeking/price leadership (barometric, dominant firm) • ownership/profit maximisation/non-profit objectives • product differentiation/Advertising/Marketing/Brand image-making/Product differentiation • non-price competition (ambience, free wifi etc) ◦ Performance (Efficiency) • productive • allocative • static • dynamic. NOTE: Monopolistic Competition is not on the current specification, but should be credited if used in relevant discussion

Evaluation	• Reasons why ownership and control might be related to structure, conduct and behaviour. • Reasons why size and structure might be closely related to behaviour and efficiency. ◦ eg the assumptions of perfect competition: profit maximising behaviour and price taking, leading to long run equilibrium and productive and allocative efficiency. • The question of whether structure automatically governs behaviour and efficiency. ◦ for example, a group of multinational coffee outlets in a town centre can look monopolistic, but actually behave very competitively, perhaps exhibiting 'price taking' behaviour ◦ possibility of price leadership • following the dominant firm • the small independent firm setting the pace ◦ possibility of collusion PLEASE NOTE: The strongest evaluative answers are likely to discuss the above concepts in the context of the Cafe/Coffee Shop scenario. <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• Diagrams • An overall judgement on the issues raised • Examples

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above.

[25]

19.

Relevant issues/logical chains of analysis include:

- relevant definitions, e.g. PED, total revenue, costs, price discrimination
- Price elasticity of demand can change with the time of day eg people on their way to work or on a timed lunch break have fewer alternatives and therefore lower PED. Afternoon customers are under less pressure and so have more alternatives and therefore higher elasticity. The café has large fixed costs, eg staff and therefore there are times of day when it works to full capacity and others where it is under capacity. It therefore needs to spread costs more evenly and then if it can maximise TR it will also maximise profit. Revenue is increased by increasing price when PED is inelastic and reducing price when demand is elastic. In some ways this is a similar pricing strategy to that of the low cost airlines
- This pricing strategy as an example of price discrimination
- Explanation of geometrical relationships on a diagram.
- diagrams to support the explanation, eg AR, MR, MC, price-elastic and inelastic demand.

NOTES: (1) PED, revenues and costs are mentioned in the stem of the question to assist students in focusing their answer. Do not penalise if any of these three items is not specifically discussed. Full marks can be achieved for a clear explanation which does not necessarily discuss all three of these items in any depth, although it can be expected that at least two will be necessary to convey a convincing explanation. **(2)** Scenarios other than the Cafe/Coffee Shop can be credited here if they help the explanation (e.g. on-peak/off peak rail travel can be used in a relevant way)

[15]

Issues and areas for discussion include:

Introduction	• Definition/explanation of 'more responsive to market forces' • Basic reasons why governments of developed countries support agriculture.
Developing the response to the question (application)	NOTE: Students are not confined to discussion of direct intervention on farm prices; they can discuss government intervention anywhere along the supply chain (e.g. government attempts to modify the behaviour of supermarkets/powerful buyers), and they could then discuss effects working backwards along the chain to the farm source. • Comments from own economic knowledge or based on the data, eg • S & D theory (elasticities, shifts, potentially unstable prices; price support through quotas shifting S to left) • Possible policies for stabilising prices and incomes ◦ national government: competition policy, regulation ◦ EU level: quotas, intervention buying, buffer stocks ◦ milk as a staple foodstuff, an 'essential' ◦ effects of free trade and globalisation (imports are mentioned in Extract E) ◦ production and productivity (Extract F; further discussion of Extract D) ◦ intensity of production (mentioned in Extract F) ◦ economies of scale (Extract F)
Developing the response to the question (analysis)	• Arguments for markets, eg ◦ rationing/signalling ◦ consumer sovereignty and choice ◦ decentralisation ◦ opportunity costs ◦ efficiency ◦ problems with government failure. • Arguments against, eg ◦ market failure, externalities ◦ need for price and Income stabilisation ◦ imperfect information ◦ influence of supermarkets • changes in demand and supply conditions • globalisation, free trade • need for government to act as a broker between producers and retail sector.

Evaluation	• Market failure versus government failure • Consequences of government involvement (eg costs to the taxpayer) versus consequences of non-involvement (eg costs to the consumer; danger of a break in supply) • Free trade versus protection • Power of the supermarkets/small number of processors • Policy appropriate at national level or EU level? • Difficulties of identifying and acting for public interest/interests of consumers/producers • Unintended consequences, eg effects of quotas; milk as a raw material, impacting on many other industries; environmental side-effects of intensive farming • There is information in the data regarding Spain and UK which appears to indicate that quotas discourage economies of scale, and lifting quotas therefore increases efficiency. <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• Diagrams/An overall judgement on the issues raised.

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above.

[25]

Issues and areas for discussion include

Introduction	Basic definitions/descriptions of oligopoly behaviour, eg collusion, cartels; policy responses, eg anti-monopoly policy. A basic distinction between collusion and cooperation.
Developing the response to the question: Application / Analysis	Application - Students might approach the information in the stem from the angle of perfect versus imperfect competition or price taking versus price making, or product differentiation. - They could also use a structure-conduct-performance (SCP) approach - The concept of 'public interest' Analysis A sensible approach is to distinguish between 'collusion' and 'cooperation' and consider how each would affect issues such as - Productive efficiency - Allocative efficiency - Public interest - Economic welfare - Consumer/producer surplus Discussion of various issues listed in the stem; various approaches (one discussed in depth, or several in less depth) can earn full marks. - Fixing prices - Jointly deciding on output - Research - Developing new products - Use of the phone charger case as an example of 'cooperation'. An industry wide 'standard' product that - Creates internal and external economies of scale - Reduces waste - Potentially reduces prices to consumers and increases convenience - Use of the roaming charges case as an example of 'collusion' among suppliers to - make pricing opaque, - create asymmetric information - divorce prices from genuine costs - turn consumer surplus into producer surplus - Policy responses to the above, and/or other examples provided by the student, including

	◦ Cooperation case: subsidies, technical advice, legislation ◦ Collusion case: investigation, regulation, legal means.
Evaluation	• Discussion of the word 'never' in the stem • Identification of 'other aspects' that might or might not attract government intervention • Case-by-case intervention versus blanket intervention • General discussion of free market versus governmental approaches; market failure versus government failure Strengths and weaknesses of various policy options. <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• Diagrams ◦ An overall judgement on the issues raised ◦ Examples.

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above.

[25]

24.

For relevant definitions, eg oligopoly, interdependence, uncertainty, cartel.

For explanation of the pricing and/or output strategy of an oligopolist (full marks can be obtained by discussing one in depth)

Examples include

- Oligopolists are not price makers like monopolists nor price takers like perfect competitors instead they can be described as price seekers. This is because their price elasticity of demand is less predictable, and it is possible for total revenue to be reduced by a reduction or increase in price. It depends on whether rivals react to a price cut by reducing theirs or to a price increase by leaving theirs where it is and this interdependence can be shown using a kinked demand curve. The stress of uncertainty can be reduced by collusion which is illegal. Or firms might use non-price competition and product differentiation to attempt to boost revenue while keeping published prices constant.
- Continuation of discussion, eg branding, product differentiation.
- Other relevant discussion, eg price discrimination

Use of diagrams to support the explanation, eg kinked demand curve. Regard a game theory matrix as a type of diagram.

Relevant real world examples and/or relevant reference to the UK and/or other economies.

[15]

25.

For relevant definitions, e.g. small firm, competitive market, perfect competition (take a list of 'features' of perfect competition as a definition/explanation).

For explanation:

Examples include

- The size of firms can be measured in various ways, e.g. capital employed, number of employees, market share. Due to economies of scale and other factors the perfect competition model no longer fits many market settings where forms of imperfect competition are the norm. The internet has helped some small businesses, in terms of 'entry barriers for example a toy shop no longer needs to pay up front to be located in a high street with high rents and low footfall but can be on a virtual market place at low cost and 'visited by thousands of potential customers. It can also be argued that the internet supports other aspects of competition, such as 'perfect knowledge'. Small firms can also 'piggy back' on the economies of scale created by large operators like Amazon.
- Other lines of argument; the most successful are likely to focus on aspects of the 'assumptions' of competition models and the possible impact of the internet on each.
- Question refers to "some markets" and so credit relevant points relating to situations where the internet does not make some markets more competitive, but in fact makes them less competitive. Amazon for example might be quoted as a dominant firm; alternatively as a company providing a 'platform' for smaller 'partners'.

Use of diagrams to support explanations, e.g.

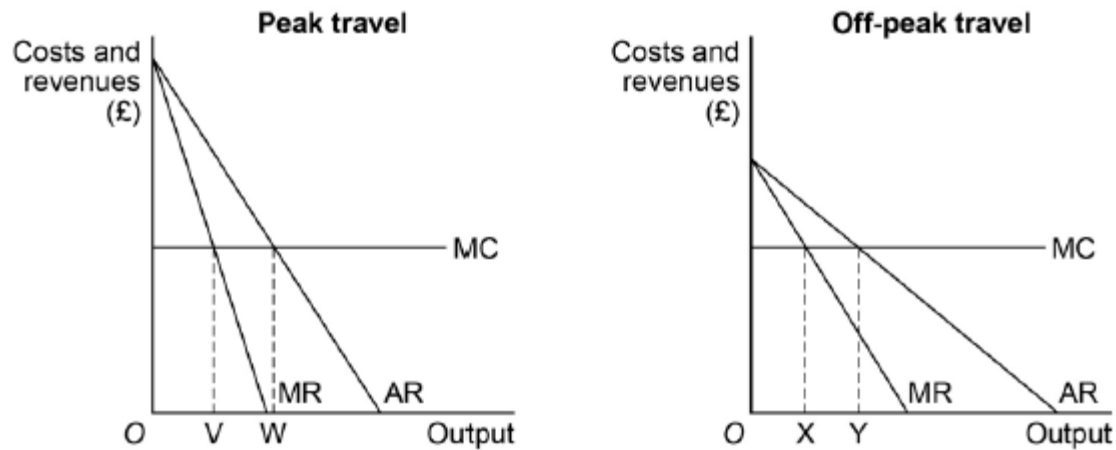
Perfect competition, perhaps showing costs being lowered due to internet; ease of entry (supply curve shifts right).

Relevant real world examples and/or relevant reference to the UK and/or other economies.

[15]

1.

The diagrams below show the peak and off-peak travel markets for a price-discriminating train operating company. The firm is a monopolist and the costs in both markets are the same.



To maximise profits, how much should be supplied in each market?

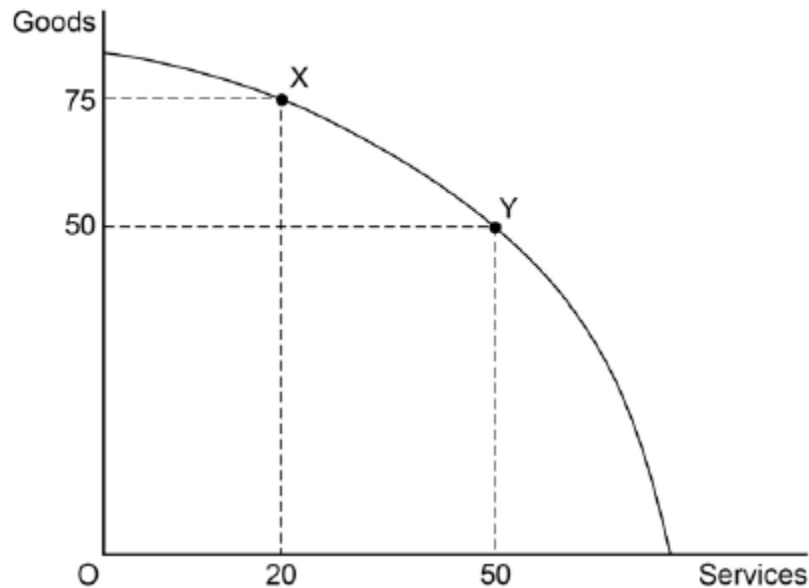
	Peak travel	Off-peak travel	
A	OV	OX	☐
B	OV	OY	☐
C	OW	OX	☐
D	OW	OY	☐

[1 mark]

2.

The diagram below is a production possibility curve showing the various combinations of goods and services that an economy can produce.

Which one of the following can be deduced from the diagram?



- A Point Y is allocatively efficient but Point X allocatively inefficient ☐
- B Point Y is productively efficient but Point X productively inefficient ☐
- C The opportunity cost of producing more goods, in terms of services, is greater at Point Y than at Point X ☐
- D The opportunity cost of producing more goods, in terms of services, is lower at Point Y than at Point X ☐

[1 mark]

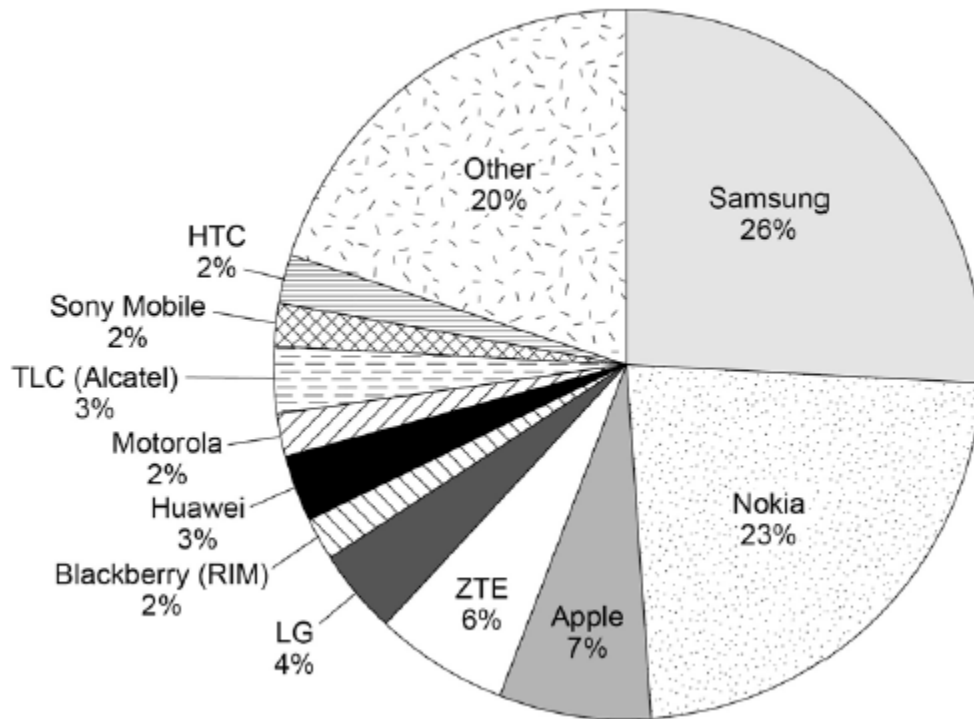
3.

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]

4.

The table below shows the market share of mobile phone handset producers in 2012.



From the data, what is the 5 firm concentration ratio?

A 62%

☐

B 66%

☐

C 69%

☐

D 82%

☐

[1 mark]

Extract C: Some international trends

Some of the costs facing firms in the electricity market are domestic, such as, the charges levied by the companies who own the transmission cables. However, many input costs are determined internationally, including coal, gas and even labour costs. For example, npower, which is owned by a German company, recently announced plans to cut 1400 office and call centre jobs (about 15% of its UK workforce) as part of a major re-structuring, outsourcing them to India. While reducing labour costs this way, it increased prices by 10.4 per cent.

The costs of producing electricity could go down if the UK adopts fracking, a process widely used in the USA. Fracking involves the use of chemicals to extract oil and gas from rocks deep underground. In the USA, electricity prices have fallen as a result of the production of shale gas using this controversial process. Would there be a similar reduction in electricity prices in the UK? Some economists predict that this will not be the case. American shale gas is sold within the USA, whereas, without government intervention, UK gas is more likely to be exported via pipelines to generators on the Continent, to take advantage of high prices there.

Critics of the Big Six might argue that electricity companies should not have been privatised as they can never behave or perform like supermarkets. They claim that this is due to differences between the two industries, such as the type of product sold, entry barriers, minimum efficient scale, company objectives, effects of technological change and international factors.

Source: News reports, 2013

6.

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

7.

Profit maximising monopolies are said to be allocatively inefficient due to

- A their marginal revenue being greater than their marginal cost. ☐
- B their average revenue being greater than their average cost. ☐
- C their average revenue being greater than their marginal cost. ☐
- D their marginal revenue being equal to their marginal cost. ☐

[1 mark]

8.

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]

9.

In August 2013, the UK government argued that there needed to be greater competition in energy markets in the UK.

Evaluate the view that if markets can be made more contestable there is no need for further government intervention.

[25 marks]

10.

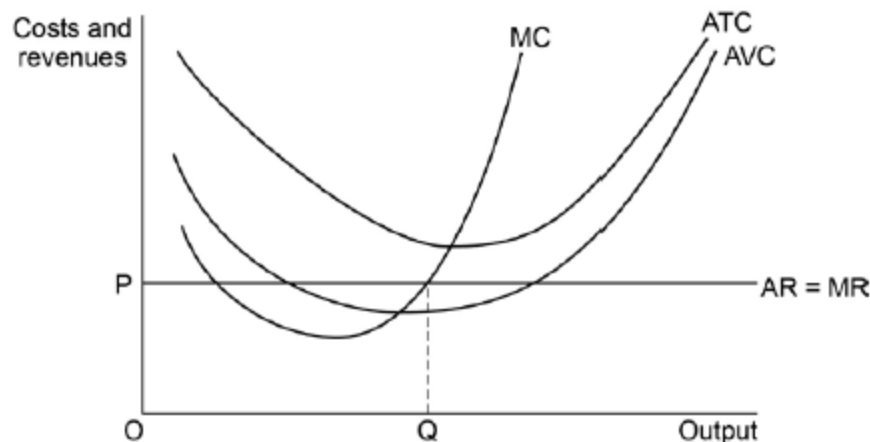
'In tackling environmental problems there is not really a straight choice between perfectly performing markets on the one hand, and wonderfully wise governments on the other.'
(**Extract C**, lines 18 – 19).

Using the data and your knowledge of economics, assess the relative importance of market forces and government intervention in encouraging businesses to behave responsibly towards the environment.

[25 marks]

11.

The diagram below shows the cost and revenue curves for a firm in a perfectly competitive market.



All other things being equal, the firm

- A is making a loss in the short run but will remain in the market in the long run. ☐
- B is making a profit and will remain in the market in the long run. ☐
- C will exit the market immediately to minimise its loss. ☐
- D is minimising its loss by staying in the market in the short run. ☐

[1 mark]

12.

In August 2013, the UK government argued that there needed to be greater competition in energy markets in the UK.

Explain why a lack of competition is likely to lead to allocative and productive inefficiency in markets such as the market for energy.

[15 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]

14.

The UK energy market Extract B (lines 11–12) states that there is 'no evidence of collusion between energy suppliers to date.'

With the help of a diagram, explain how collusion between energy suppliers could affect the retail prices paid by consumers.

[9 marks]

15.

It is generally accepted that we need to adopt new ways of charging for the use of our roads. This is partly because of worsening congestion, but is also due to the reduction in revenue generated from taxes on fuels as a result of more fuel-efficient vehicles.

Assess the view that a system of road-pricing is the best way to tackle the problem of worsening traffic congestion in the UK.

[25 marks]

16.

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]

17.

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.

Explain why firms, such as Apple, might be able to charge different prices for the same product in different markets.

[15 marks]

18.

Explain how the data in **The UK energy market Extract A** show that energy companies have exploited their market power.

[4 marks]

19.

The UK energy market

Extract B: Are energy firms exploiting their market power?

The UK energy market was privatised in the early 1990s and is dominated by six firms, British Gas, EDF Energy, E.ON, Npower, Scottish Power and SSE. These firms supply, produce and own energy reserves. Gas is the main source of fuel used by electricity generators.	1
The increase in household fuel bills has been a cause of rising inflation in recent years. In autumn 2013, prices were increasing at three times the rate of inflation. Energy prices have risen faster than average earnings and 6.5 million households were spending over 10% of their incomes on energy and so experiencing 'fuel poverty'.	5
Are the oligopolistic energy utilities exploiting their monopoly power? Firms raise prices quickly when their wholesale costs increase, but are slow to reduce them when market conditions change. The energy regulator, OFGEM, doesn't regulate prices or profits, but aims to promote greater competition in the market. OFGEM has found no evidence of collusion between energy suppliers to date.	10
Wholesale energy costs are responsible for around half the final domestic bill. Suppliers buy energy on the wholesale market from energy producers. Contracts are complex and firms buy energy to cover their future needs. A generator may sell energy to a supplier within the same company before it is sold on to the consumer. The determination of wholesale prices and their link to retail prices aren't clear.	15
UK households faced over 1756 different price plans in early 2013. This makes it difficult for consumers to compare rates and few consumers switch supplier. In 2013 OFGEM intervened to fix the maximum number of price plans to four per firm; this should bring greater price transparency.	20

Source: News reports, October 2013

20. The UK energy market

Extract A: Average household dual fuel bills August 2009–2013 (£)

	2009	2010	2011	2012	2013
Household bills	1145	1105	1250	1310	1420
Wholesale energy costs per bill	615	485	585	625	635
Profit per bill	10	55	45	50	95

Source: Contains public sector information licensed under the Open Government Licence v. 1.0

21. During 2015, the European Commission investigated allegations that people booking at Disneyland Paris, and on the cruises of some shipping lines, paid substantially different prices for the same holiday. British and German customers appear to have paid more than French customers.

Explain the conditions that enable price discrimination to take place.

[15 marks]

22. '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]

23. 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]

24. '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]

25.

During 2015, the European Commission investigated allegations that people booking at Disneyland Paris, and on the cruises of some shipping lines, paid substantially different prices for the same holiday. British and German customers appear to have paid more than French customers.

Evaluate the view that price discrimination is always good for producers and bad for consumers, and should therefore be banned by regulators such as the EU Commission.

[25 marks]

Mark schemes

1.

A

[1]

2.

D

[1]

3.

Relevant issues raised:

Explanation

For a relevant explanation of supernormal profit eg in terms of profit in excess of normal profit which is the minimum return required to keep an enterprise in its current use.

Analysis of effects

For Example

- If firms are colluding closely, then the industry can be analysed as a (complex) monopoly. If the business is profit maximising then $MC = MR$; a percentage tax rate takes a proportion of total profit which is the difference between TC and TR. The rational business decision is to continue at the same level of output and price because a proportion of a maximised profit is better than a proportion of a less than maximum profit. The tax therefore has no immediate or short run effect on the equilibrium position of the firm, instead it acts as a revenue-raiser for the government; however, in the longer term the firm might react with decisions about such matters as investment or expansion.
- Other considerations, e.g. the special circumstance of companies that, in effect, sell electricity to themselves (a form of 'transfer pricing') and/or have to estimate demand in advance, and have a product that cannot be stored.
- Analysis in terms of supply and demand curves might be used to illustrate the effects of a tax. While this might not be appropriate to an imperfect market, which is the context of the data, the question does not specify the type of market. Also, it could (conceivably) be argued that in a global context, energy supply might be structured monopolistically but behave competitively, e.g. by price taking. While this might be more credible in the case of supermarkets, we will accept an argument that the tax will shift supply to the left and further raise prices, and mark the subsequent logical chain of reasoning on its quality.

For making appropriate use of diagrams, e.g. profits diagram for a monopolist; S & D analysis (see notes above).

[9]

4.

B

[1]

7.

C

[1]

8.

Areas for discussion include:

- the meaning of cost minimisation/revenue maximisation
- ultimately, minimising total costs means not producing anything
- cost minimisation means minimising the cost of producing any given level of output
- X- inefficiency
- methods of reducing/minimising costs
- implications of cost minimisation
- methods of increasing/maximising revenues
- implications of revenue maximisation
- discussion of whether both can be pursued at once
- profit maximisation/satisficing
- explanation that while $\text{Total Profit} = \text{TR} - \text{TC}$, maximum profit is at $\text{MC} = \text{MR}$
- is cost minimisation and revenue maximisation consistent with profit maximisation?
- the need for firms in the private sector to make profits
- other possible objectives that firms might pursue
- the importance of the type of firm and the structure of the industry
- issues to do with the divorce of ownership and control; different sections/interests within a single firm might have different objectives, eg production process (minimise costs) sales/marketing (maximise total revenue) managers (utility/status/bonuses linked to profits/sales/other indices), shareholders (long-run, short-run perspectives on share prices and dividends)
- picking up on the word 'always' in the question

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

[25]

9.**Areas for discussion include:**

- what is meant by contestable markets
- nature of entry/exit barriers
- why lack of contestability leads to market power
- outcomes in terms of conduct/performance if markets are more contestable
- whether “perfect” contestability is possible
- hit and run competition
- examples of contestable markets
- role of technology in making markets more contestable
- how technology may make markets less contestable
- natural monopoly arguments
- role of regulators/state in creating contestability
- effectiveness of policies to create greater contestability
- whether contestability will solve the problems of potential market power
- the need for other forms of intervention to correct the possible abuses of market power
- other forms of government intervention and their effectiveness

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

[25]**10.**

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Where there is no **explicit** reference to the data, award a maximum of **21 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks <i>Mid-Point 24 marks</i>
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	17 to 21 <i>Mid-Point 19 marks</i>
Level 3	Reasonable including some correct analysis <u>but</u> very limited evaluation	10 to 16 <i>Mid-Point 13 marks</i>
Level 2	Weak with some understanding	4 to 9 <i>Mid-Point 7 marks</i>
Level 1	Very weak	0 to 3 <i>Mid-Point 2 marks</i>

Refer also to the issues and areas for discussion on the next page.

Introduction	- Definitions / descriptions of, e.g. - Market forces - Government intervention / regulation
Developing the response to the question: (Application)	Comments from own economic knowledge or based on the data, e.g. - Further comments on Extract A, (international comparisons of green / non-green energy sources) - Examples from Extract B of businesses behaving responsibly, e.g seeking new fuels for aircraft, developing electric cars - Market forces clashing with government predictions, e.g. seeking new oil while wanting to limit climate change (Extract B) - Failures of regulation (Extract C) - Unsustainable business model (Extract C)
Developing the response to the question: (Analysis)	Arguments for regulation / intervention e.g. - Market failure - Negative externalities - Inability of markets to make long term predictions - Health and safety issues arising from environmental problems - The need for coordinated international action Arguments for market forces e.g. - Government failure - Efficiency - Competition, enterprise, efficiency - Signalling, incentive, rationing functions of price
Evaluation	- Evaluation of policies in general, e.g. command and control vs. market-focused policies - Evaluation of some specific policies, e.g. prohibitions, regulations, vs. pollution permits, carbon off-setting, taxes, subsidies - Discussion of the quotation (perfectly performing markets vs. wonderfully wise governments) - Consideration of why environmental policies might be good for business and also why it is good for business to respect the environment - Advantages and disadvantages of a mixed economy approach - Market failure versus government failure - Need for privatisation to be accompanied by effective regulation - Discussion of the claim about privatised profits and nationalised costs <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	- Relevant diagrams - An overall judgement on the issues raised.

It will only be possible for candidates to consider a few of the issues and areas noted. They may also discuss issues not mentioned in the table.

[25]

11.

D

[1]

12.

Relevant issues include:

- the nature of the UK energy market, or any other relevant market chosen by the candidate
- perfect competition
- types of imperfect competition
- concept of efficiency in economics
- what is meant by allocative efficiency
- what is meant by productive efficiency
- why profit maximising firms, operating in imperfectly competitive markets, are unlikely to achieve productive and allocative efficiency

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

[15]

13.

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks <i>Mid-Point 24 marks</i>
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	17 to 21 <i>Mid-Point 19 marks</i>
Level 3	Reasonable including some correct analysis <u>but</u> very limited evaluation	10 to 16 <i>Mid-Point 13 marks</i>
Level 2	Weak with some understanding	4 to 9 <i>Mid-Point 7 marks</i>
Level 1	Very weak	0 to 3 <i>Mid-Point 2 marks</i>

Issues and areas for discussion include

Introduction	Basic definitions / descriptions of • long run • profit maximisation • business goals / objectives
Developing the response to the question: Application/Analysis	• The importance of the profit motive. • Relevance of the size of firms • The functions of the entrepreneur: ownership, control, decision making and risk taking in small firms and large firms • Directors versus managers • Decision-making in small firms and large firms • The impact of a divorce between ownership and control • Other possible objectives ◦ Sales maximisation ◦ Revenue / turnover maximisation ◦ Maximisation of Market share ◦ Maximisation of company size (world domination) ◦ Industry-specific objectives e.g. newspaper circulation, TV viewing figures ◦ Managerial utility ◦ Social welfare maximisation ◦ Satisficing
Evaluation	• Critical discussion of the quotation • Bonus culture • Short run vs long run • Large firms vs small firms • Overall view of the various possible objectives • Is any one objective sufficient, or do firms need a range of objectives? • Importance of profits for investment • Can any other objectives be achieved in the long run if profits are not achieved? • Is profit maximising actually possible? Do firms have the information? Can they track MC, MR etc? <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	• Diagrams • An overall judgement on the issues raised • Examples

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above.

14.

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

A monopoly diagram is expected, illustrating that where there is collusion, output is likely to be lower and prices higher than under competitive market conditions.

Relevant issues include:

- the nature of collusion
- the ability to control the market and exercise monopoly power
- restricting output to force up the price
- maximising joint profits
- producing where $MC=MR$ to maximise profits
- why competition between suppliers helps to drive prices down

[9]

15.

Areas for discussion include:

- roads as a scarce resource
- the negative externalities associated with congestion, eg the longer journey times for other road users
- what is meant by road-pricing and how it might be implemented (allow both tolls and congestion charges as forms of road-pricing or as alternative policies)
- other policies that might be employed such as: higher taxes on fuels, increasing the road fund licence, building more roads, subsidising public transport, investing in and improving public transport
- the extent to which roads display the characteristics of a public good and how has this been affected by developments in technology.
- congestion is most prevalent on certain roads and at certain times of the day
- how road-pricing might be implemented, eg charging drivers a price for each mile travelled with different prices for different roads and for different times of the day, perhaps mentioning automatic number plate recognition systems
- setting up tolls on major roads with the toll charge varying between peak and off-peak times
- how higher taxes on fuels would help to reduce congestion and the relevance of price elasticity of demand
- how subsidising, for example, bus and rail transport, will help to reduce congestion and the relevance of cross elasticity of demand
- the budgetary and cost implications of the different options
- possible unintended consequences of the different methods, eg the impact of road pricing on city centres, such as empty shops, higher prices for products as transport costs rise
- equity arguments, eg are indirect taxes regressive, should the road user pay or the taxpayer, the impact of the different policies on the poorest members of society, town versus country dwellers, commuters and businesses
- the likelihood of government failure, eg inadequate information means that the government may set an inappropriate price for using roads, eg a price that doesn't reflect the true cost of congestion, government policy is likely to be affected by public opinion and the reactions of voters.

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

[25]

16.**Areas for discussion include:**

- the nature and examples of price discrimination
- allows the producer to convert consumer surplus into producer surplus
- how price discrimination allows the producer to increase revenue and profit compared to a single price
- relevance of price elasticity of demand
- how price discrimination enables the producer to reduce fixed costs by spreading demand more evenly, eg peak and off-peak rail fares
- better capacity utilisation by firms will lower costs and may lead to lower prices for consumers
- why price discrimination may increase total sales and generate economies of scale
- the use of price discrimination as a barrier to entry, reducing competition
- why price discrimination almost certainly means that some consumers will face a higher price than if there was a single price
- the use of price discrimination to cross-subsidise loss-making services
- some consumers will benefit from lower prices and products that might not otherwise be supplied
- equity considerations related to the redistribution of income that results from price discrimination.

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

The use of examples to illustrate price discrimination should also be taken into account when assessing the quality of response.

[25]**17.****Relevant issues include:**

- reasons why prices may differ, eg cost differences, price discrimination
- examples of price discrimination
- the ability of the producer to exert control over supply
- the ability to separate different markets, eg through time, barriers to entry
- preventing the transfer of goods or services between markets
- the significance of different price elasticities of demand
- why cost differences, eg transport costs, may lead to price differences
- why imperfect information may allow firms to charge different prices for the same product
- why product differentiation and branding may allow a supplier to charge different prices for what is essentially the same product.

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

The use of examples to illustrate price discrimination should also be taken into account when assessing the quality of response.

[15]

18.

Response:	Max 4 marks
- includes evidence that shows that energy companies have exploited their market power - clearly explains how this data is evidence of energy companies exploiting their market power	4 marks
- includes evidence that shows that energy companies have exploited their market power - unclear explanation of how this data is evidence of energy companies exploiting their market power	3 marks
- includes evidence that shows that energy companies have exploited their market power - limited explanation of how this data is evidence of energy companies exploiting their market power	2 marks
- includes evidence that does not clearly show that energy companies have exploited their market power - no explanation of how this data is evidence of energy companies exploiting their market power.	1 mark

Relevant issues include:

- Evidence of profits rising by a higher proportion than the rise in wholesale costs is an indication of the exploitation of market power
- Evidence of profits rising by a higher proportion than household bills is an indication of the exploitation of market power.
- the data shows profit element in household bills rose from £10 to £95 between 2009 and 2013
- average bills per household rose from £1145 to £1420 over the period, a larger increase than the rise in wholesale energy element in household bills, £615 to £635
- between 2009 and 2010, wholesale energy costs fell from £615 to £485 per bill but average bills had a smaller decrease, £1145 to £1105
- between 2012 and 2013, wholesale costs increased by £10 per bill at a time when household bills rose by £120 and profits by £45 per bill

[4]

21.

For relevant definitions, e.g. price discrimination, in terms of different prices charged to different customers (2 marks) for the same product (2 marks) without the difference explained by cost differences (2 marks) .	Up to 2 marks per point defined or explained to a maximum of 4 marks
For explanation – award 1 mark for each link in a logical chain of reasoning to a maximum of 15 marks.	
Possible explanations include - Some element of monopoly power (1 mark). The supplier needs some ability to make rather than take prices. (1 mark). It must be possible to identify different markets (1 mark) and keep markets separate (1 mark) to prevent seepage (re-selling) between markets (1 mark). Each market has a different price elasticity of demand (1 mark), this allows the supplier to charge whatever price their market will bear (1 mark). - Methods of separating markets, e.g. - Distance - Time - Type of customer - First, second, third degree price discrimination. (Note: these can be rewarded, if discussed, but they are not essential, as they are not required by the specification).	
Use of diagrams to support the explanation, e.g. supply curves with associated demand (AR, MR) curves of differing elasticity	Up to 2 marks per diagram (1 mark for labelling, 1 mark for information shown) to a total of 4 marks.
Relevant real world examples and/or relevant reference to the UK and/or other economies.	1 mark per reference to a maximum of 2 marks

[15]**22.**

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks <i>Mid-Point 24 marks</i>
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	17 to 21 <i>Mid-Point 19 marks</i>
Level 3	Reasonable including some correct analysis <u>but</u> very limited evaluation	10 to 16 <i>Mid-Point 13 marks</i>
Level 2	Weak with some understanding	4 to 9 <i>Mid-Point 7 marks</i>
Level 1	Very weak	0 to 3 <i>Mid-Point 2 marks</i>

Issues and areas for discussion include

Introduction	- Definitions of, e.g. - concentration - monopoly power
Developing the response to the question: Application/Analysis	- Advantages of concentration / monopoly - Economies of scale - International competitiveness - Patents, copyrights, etc. - Public interest arguments, e.g. strategic industries, employment issues - Dynamic efficiency - Natural monopoly - Disadvantages - Consumer surplus transferred to producers - Deadweight losses - Higher prices, lower output, under-used capacity - Possibility of collusion - Market failure - Producer sovereignty
Evaluation	- Critical discussion of the quotation - Advantages versus disadvantages of monopoly / concentration - Possibility of price discrimination (positives and negatives) - Need for government intervention and regulation - Collusion distinguished from cooperation / collaboration - Static / dynamic efficiency - Is perfect competition always 'perfect'? - Does 'perfect' necessarily signal 'the best'? - Global issues (large firms more resilient than small ones faced with international competition and corporatism) - Advantages of monopoly in certain situations (e.g. NHS vs health markets) - Application to particular industries, such as motor manufacturing <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	- Diagrams - An overall judgement on the issues raised - Examples

It will only be possible for candidates to consider a few of the issues and areas noted. They may also discuss issues not mentioned in the table.

[25]

23.

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks <i>Mid-Point 24 marks</i>
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Level 2	Weak with some understanding	4 to 9 <i>Mid-Point 7 marks</i>
Level 1	Very weak	0 to 3 <i>Mid-Point 2 marks</i>

Issues and areas for discussion include

Introduction	- Definitions, examples - Economies of scale - What is meant by “small” or “large” in this context
Developing the response to the question: Application/Analysis	- Distinction between short run and long run - Diminishing returns and returns to scale - Advantages of large firms, e.g. - Types of economy of scale - Other advantages of size, e.g. opportunities for collusion, price making, monopoly, oligopoly, dominant firm price leadership - Disadvantages: diseconomies of scale; x inefficiency - Globalisation and concentrated markets - Government policy (eg sweetheart tax deals) - Advantages of small firms, e.g. - Niche markets - Barometric price leadership - Disruption, e.g. easyJet, Uber - Government policy favouring small firms (eg small business support, start-up grants; business advice agencies) - Government policy hindering small firms, e.g. business rates, VAT, red tape
Evaluation	- Ways in which small firms can fight back, e.g - Reducing costs (internet / weightless economy - Technical change reducing the need for scale economies (eg nuclear power stations versus windmills) - The importance of small firms in the economy - As employers - As motors for growth - As innovators - As ethical producers - Serving specialised markets - Having the potential for growth – large firms start out small - Arguments for and against government intervention to support / promote Small & Medium Enterprises - The question of whether government intervention is necessary - Overall view of advantages and disadvantages of large and small firms <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	- Diagrams - An overall judgement on the issues raised - Examples

It will only be possible for students to consider a few of the above. They may also discuss issues not discussed above.

[25]

24.

For relevant definitions, e.g. perfect competition (2 marks), efficient resource allocation (2 marks)	Up to 2 marks per point defined or explained to a maximum of 4 marks
For explanation – award 1 mark for each link in a logical chain of reasoning to a maximum of 15 marks.	
Examples include - Economic theory predicts that under the conditions perfect competition the market will move towards a long run equilibrium (1 mark) where firms are earning only normal profits (1 mark) and there is no incentive (1 mark) for existing firms to leave (1 mark) or new firms to enter (1 mark) the industry. At that point $P = MC = MR = AC = AR$ (1 mark). If price equals marginal cost, the producer is compensated for putting the resources together to produce a good or service (1 mark). If price also represents the marginal benefit, then consumers believe a purchase compensates them for the hard-earned money they spend (1 mark). If marginal cost = marginal benefit neither consumers nor producers are benefitting at the expense of the other (1 mark) while consumers are receiving the goods and services they want (1 mark). This gives allocative efficiency (1 mark). If $MC = AC$, then AC must be at its lowest point and this gives productive efficiency (1 mark). So profit maximisation ($MC = MR$) (1 mark) by a large number of small firms has led to an efficient allocation of resource (1 mark). - Because they do not act as price-takers, and AR is therefore not equal to MR firms in any imperfect form of competition cannot achieve all five elements of $P = MC = MR = AC = AR$ at a single equilibrium point and in that sense is less efficient than perfect competition For students who do not go directly to the LR equilibrium position, but start with the short run, distinguish between firm and industry, and proceed through the 'steps' towards achieving LR equilibrium: - Allow up to 2 marks for a mere 'list' of conditions of perfect competition. Individual conditions can be credited (1 mark each) only if they are discussed within a logical chain of reasoning that explains price-taking and competitive behaviour.	
Use of diagrams to support explanations e.g., Perfect competition, equilibrium, short / long run	Up to 2 marks per diagram (1 mark for labelling, 1 mark for information shown) to a total of 4 marks.
Relevant real world examples and / or relevant reference to the UK and / or other economies.	1 mark per reference to a maximum of 2 marks

[15]

25.

In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks <i>Mid-Point 24 marks</i>
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Issues and areas for discussion include

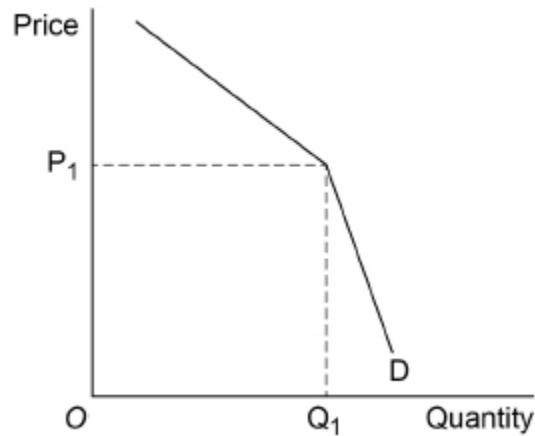
Introduction	Basic definitions/descriptions, e.g. producer surplus/ consumer surplus; regulation
Developing the response to the question: Application / Analysis	- Advantages of price discrimination, e.g. - Producers receive higher profits which, if re-invested, might benefit consumers through higher efficiency - Increased affordability for consumers paying the lower prices (the low cost airline model, which has been replicated by some other industries) - PD might turn a loss making firm into a profitable one - PD might enable a good / service to be produced that otherwise would be lost - Disadvantages - PD turns consumer surplus into producer surplus, so represents a transfer of resources from a less powerful group to a more powerful one (re-distribution of income in reverse) - In extreme cases, everyone pays the maximum they are willing to pay; consumer surplus disappears - Consumers paying the highest prices might switch to goods / services that are less socially optimal, e.g. consumers paying peak-time public transport fares who can afford to switch to private transport might be incentivised to do so.
Evaluation	- Critical discussion of the quotation - Overall consideration of advantages vs. disadvantages - The case for and against regulation - The spread of price discrimination from low-cost airlines and railway journeys to other business models, e.g. hotels, taxi journeys, and according to the data, theme parks and cruise ships: is this good or bad for consumers / producers? - Discussion of the word 'always' in the question <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	- Diagrams - An overall judgement on the issues raised - Examples

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above.

[25]

1.

The diagram below shows the kinked demand curve (D) for a firm operating in a competitive oligopolistic market.



The kinked demand curve model provides an explanation of why the

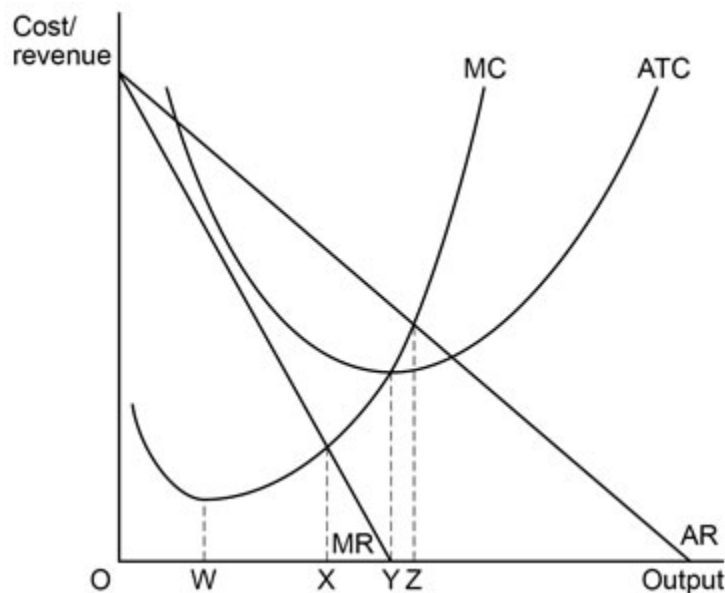
- A firm colludes with competitors to set the price of OP_1 .
- B firm's demand curve becomes more elastic as it lowers its price.
- C firm's price changes depend on competitors' pricing behaviour.
- D firm won't change its price from OP_1 even if competitors change their prices.

☐☐☐☐

[1 mark]

2.

The diagram below shows the cost and revenue curves for a monopoly.



At which one of the following levels of output would the firm be productively efficient?

A OW

☐

B OX

☐

C OY

☐

D OZ

☐

[1 mark]

3.

'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]

4.

'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]

5.

Which one of the following provides a reason for government intervention in a market?

- A Firms in an oligopolistic market may limit price competition.
- B Market failures can only be corrected by using regulations.
- C Monopolistically competitive firms earn abnormal profits in the long run.
- D Public goods are excludable and rival.

☐☐☐☐

[1 mark]

6.

Using a diagram, analyse how subsidised prices could affect firms in an industry, such as steel, which has a global market.

[9 marks]

7.

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]

8.

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]

9.

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.

Evaluate the view that government regulation of monopolistically competitive markets is unnecessary, and that policies to encourage competition and prevent the abuse of monopoly power should focus entirely on oligopolies and monopolies.

[25 marks]

10.

Explain how the data in **Extract A (Figure 2)** show that the UK parcels delivery market is displaying dynamic efficiency.

[4 marks]

11.

Which one of the following is most likely to measure the degree of competition in an oligopolistic industry?

- A The price elasticity of supply in the industry
- B The profitability of the 10 largest firms in the industry
- C The three firm concentration ratio
- D The value of the Gini coefficient

☐☐☐☐

[1 mark]

12.

Using the data in **Extract A (Figure 1)**, calculate the three-firm concentration ratio in the UK parcels delivery market. Give your answer, as a percentage, to **one** decimal place.

[2 marks]

13.

Globalisation can make some product markets more contestable.

Which one of the following characteristics of globalisation is the most likely explanation for such an increase in contestability?

- A A reduction in protectionism
- B Greater synchronisation of economic cycles between countries
- C Higher levels of labour migration
- D The growth of employment in emerging market economies

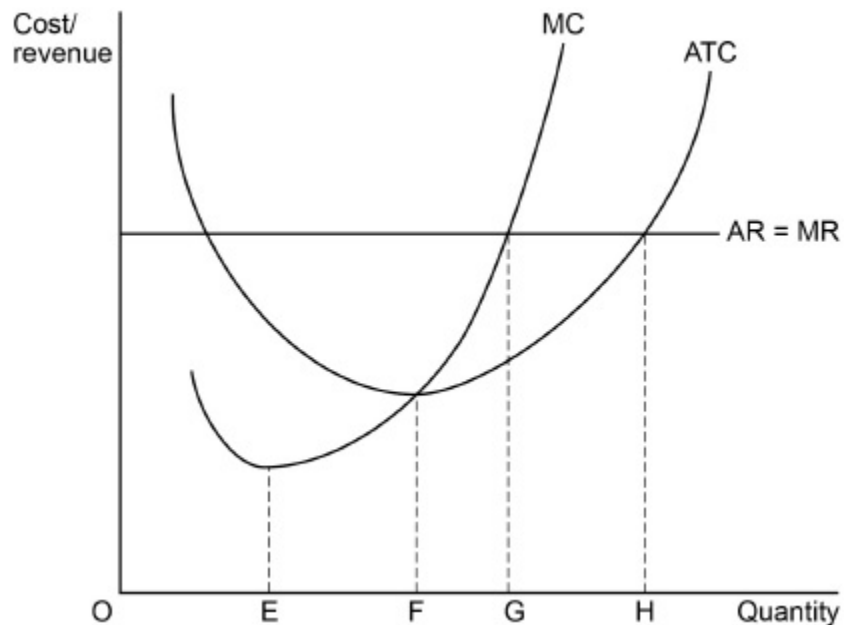
☐☐☐☐

[1 mark]

14.

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

☐

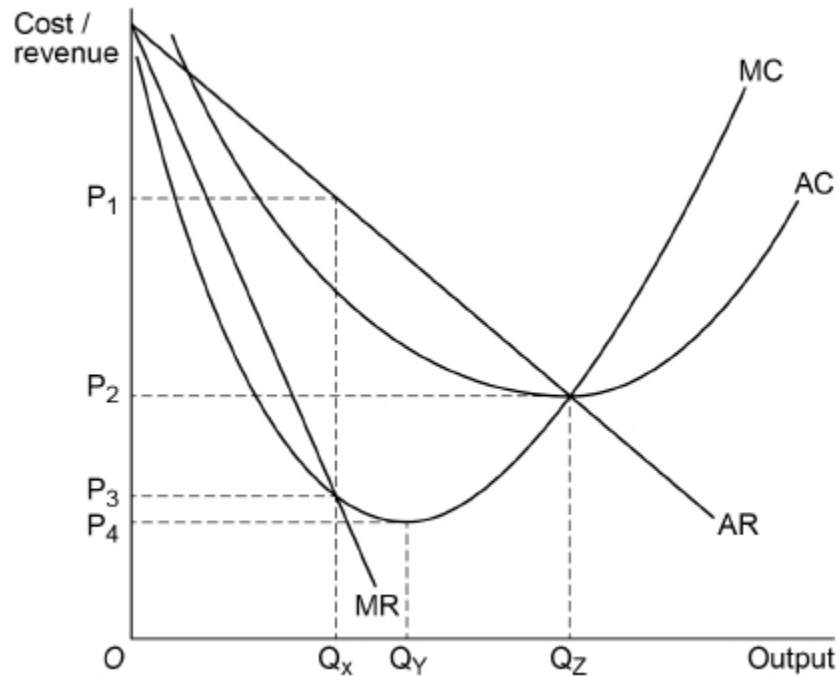
D OH

☐

[1 mark]

15.

The diagram below shows the average revenue and marginal revenue (AR and MR) curves, and the average cost and marginal cost (AC and MC) curves, for the only firm in an industry.



If the market is highly contestable, in the long run, the firm is most likely to set its price at

A $0P_1$
☐
B $0P_2$
☐
C $0P_3$
☐
D $0P_4$
☐

[1 mark]

16.

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.

Evaluate the view that a firm making low profits must be inefficiently managed.

[25 marks]

17.

Extract E (lines 14–16) states that ‘The market economy is not going to create the jobs by itself for those workers who are most affected by the change.’

Extract F (lines 4–5) states that ‘taxing productivity-enhancing tools like robots or machines makes no economic sense.’

Use the extracts and your own knowledge of economics to evaluate whether governments should allow markets to respond freely to the opportunities and challenges presented by technological progress, without any state intervention.

[25 marks]

- 18.** 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]

- 19.** **Extract B** (lines 4-6) states that ‘banks do not feel enough pressure to compete on price or quality, leading some to call for the Big Four to be split into a number of smaller banks.’

Use the extracts and your knowledge of economics to assess the view that the government should intervene further in the banking sector to promote greater competition.

[25 marks]

- 20.** Explain how the data in **Extract D** show that workers employed in routine, repetitive work are at greater risk from automation.

[4 marks]

- 21.** Explain how the data in **Extract A** show that the market power of the Big Four banks is weakening against competition from smaller rivals.

[4 marks]

- 22.** **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]

- 23.** Using **Extract A**, calculate the ratio of customers gained to customers lost by Nationwide. Give your answer correct to **one** decimal place.

[2 marks]

- 24.** A monopolistically competitive firm’s demand curve is

- A also the market demand curve.
- B inelastic throughout its length.
- C the firm’s average revenue curve.
- D the same as its marginal revenue curve.

☐☐☐☐

[1 mark]

- 25.** 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]

Mark schemes

1. C [1]

2. C [1]

3. In this part of the question, candidates will need to demonstrate that they are able to evaluate issues and arguments to support a conclusion if they are to be awarded **more than 15 marks**.

Where there is no **explicit** reference to the data, award a maximum of **21 marks**.

Level 5	Good analysis <u>and</u> good evaluation	22 to 25 marks <i>Mid-Point 24 marks</i>
Level 4	Good analysis <u>but</u> limited evaluation OR Reasonable analysis <u>and</u> reasonable evaluation	17 to 21 <i>Mid-Point 19 marks</i>
Level 3	Reasonable including some correct analysis <u>but</u> very limited evaluation	10 to 16 <i>Mid-Point 13 marks</i>
Level 2	Weak with some understanding	4 to 9 <i>Mid-Point 7 marks</i>
Level 1	Very weak	0 to 3 <i>Mid-Point 2 marks</i>

Issues and areas for discussion include

Introduction	- Definitions / descriptions of, e.g. - Privatisation - Public ownership
Developing the response to the question: (Application)	- Comments from own economic knowledge or based on the data, e.g. - Further comments on Extract A, (differences / similarities between different governments) - Examples from Extract B of privatisations - Dangers of privatisation mentioned in Extract C
Developing the response to the question: (Analysis)	NOTE There are two aspects to the question: privatisation vs. nationalisation, and domestic ownership vs. international ownership. To achieve Level 5 both aspects must be analysed and evaluated. Level 4 can be achieved by a thorough treatment of one aspect, as long as the other is addressed to some extent. - Arguments for nationalisation / against privatisation, e.g. - Externalities - Inability of markets to make long term predictions - Health and safety issues arising from environmental problems - The need for coordinated international action - Merit goods, demerit good, public goods - Arguments for privatisation / against nationalisation, e.g. - Efficiency - Competition, enterprise, efficiency - Signalling, incentive, rationing functions of price - Advantages / disadvantages of international cooperation. - Implications of inward investment; skills / knowledge transfer, comparative advantage vs. self-sufficiency, import substitution
Evaluation	- Evaluation of some specific privatisations, e.g railways, nuclear power, water - Discussion of the quotation (whether the exclusion of British state ownership can be justified if owners are nationalised by their states, or have the backing of a foreign sovereign wealth fund) - Advantages and disadvantages of a mixed economy approach - Market failure versus government failure - Need for privatisation to be accompanied by effective regulation - Globalisation and globalism - Protection vs. free trade; free movement of capital <i>Examiners should note that, for some of the weaker or average candidates, parts of the above represent quite sophisticated evaluation and so it is important to ensure that more basic evaluation is adequately rewarded where a genuine effort has been made to display that skill.</i>
Also give credit for	- Relevant diagrams - An overall judgement on the issues raised.

It will only be possible for candidates to consider a few of the above. They may also discuss issues not discussed above.

[25]

4.

For relevant definitions, e.g. commercial success, in terms of trade and profitability (2 marks), market failure, in terms of opportunity costs / externalities (2 marks)	Up to 2 marks per point defined or explained to a maximum of 4 marks
For explanation – award 1 mark for each link in a logical chain of reasoning to a maximum of 15 marks.	
Possible explanations include - A major international airport, such as Heathrow has multiplier effects on the local economy (1 mark). It is also important to the national economy as a transport hub (1 mark). The airport itself is these days likely to be a private sector enterprise (1 mark) and many other private sector organisations (shops, cafes, suppliers, contractors) will benefit from the economic activity (1 mark). If profitable, the whole enterprise will be a significant commercial success (1 mark). However, the government will be expected to provide infrastructure (1 mark) with an opportunity cost (1 mark). The taxpayer might not get an adequate return (1 mark). There are also environmental costs (1 mark) such as noise, air pollution and road congestion (1 mark for an example). Commercial success is measured by profits, whereas externalities and other market failures are difficult to measure (1 mark) therefore they can co-exist (1 mark). - An airport, such as Heathrow, as a major employer	
Use of diagrams to support explanations, e.g. Internal / external costs and benefits	Up to 2 marks per diagram (1 mark for labelling, 1 mark for information shown) to a total of 4 marks.
Relevant real world examples and/or relevant reference to the UK and/or other economies.	1 mark per reference to a maximum of 2 marks

[15]

5.

A

[1]

6.

The anticipated diagram would utilise: MC, MR, AR, AC and profits of a firm, before & after subsidy.

Relevant issues include:

- For a relevant explanation of a subsidy, e.g. in terms of support payment from a government and marginal cost in terms of the cost added to total cost by producing an extra unit of output.
- In its domestic market setting a firm might have a monopoly structure, while internationally it might have to act very competitively, as a price taker.
- Economic theory tells us that resources are efficiently allocated when price equals marginal cost.
- Monopolies usually raise price above marginal cost, signifying a transfer of resources from the consumer to the producer; a subsidy that puts price below marginal cost signifies a transfer of resources from the taxpayer to the firm.
- In the short run this might protect domestic firms from foreign competition; or it might be used to help an exporting firm eliminate competition. In the long run, firms that are protected by subsidies without improving their efficiency might be unable to compete when the subsidy is removed.

[9]

7.

Areas for discussion include:

- features of monopolistically competitive market including differentiated products, spare capacity, some influence over price, good information, no barriers to entry or exit, many producers and consumers
- pricing decisions are made independently of rivals' strategies
- short-run analysis explaining how firms set quantity by profit maximising ($MC=MR$), and the price they charge can be worked out from the AR curve. This leads to a degree of abnormal profit assuming $AC < AR$
- in the long run rival firms have an opportunity to enter the market, given absence of barriers to entry. This results in the existing firm's demand curve shifting left. The firms still profit maximise, but this is now at a lower level of output, where abnormal profit is likely to be lower/eliminated

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

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

[15]

8.

Areas for discussion include:

- explanation of privatisation and deregulation
- the arguments in favour of privatisation in general
 - efficiency
 - investment
 - greater responsiveness to customer needs
 - adoption of best practice (including from foreign firms)
 - building a shareholder culture
 - one-off impact on public finances
- the arguments against privatisation in general
 - higher prices due to monopoly/oligopoly power
 - reduced quality of service
 - reduced consistency of service
 - greater risk of externalities
 - difficulties in identifying the true value of state-owned assets at time of privatisation
 - costs incurred in the regulation of newly privatised industries
 - impact on employees and trade unions
- the arguments for and against introducing competition alongside privatisation
- impact on customer service quality, reliability and punctuality
- impact on customer price
- profitability of private operators
- impact on technological innovation and dynamic efficiency
- value for money for the taxpayer, perhaps with reference to the criticisms of the Government's handling of the sale of Royal Mail.
- impact on workers' job security, pay and conditions
- regulation of Royal Mail – the split model of competition in parcels but virtually a monopoly in letters allows for comparisons to be made about the different approaches
- reference to the fact that letter collection is more competitive than letter delivery, and the problems faced by Whistl in attempting to enter the latter market
- alternatives to nationalisation and privatisation: such as contracting out, subsidies
- the possibility of government failure, either in running a nationalised post service, or in organising the privatisation process
- market failure arguments.

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

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

[25]

9.

Areas for discussion include:

- features of monopolistically competitive industries and examples
- features of oligopolistic industries and examples
- features of monopoly industries and examples
- the objectives of government regulators – efficiency/fairness/safety/transparency/political objectives
- the view that regulators should focus on making markets (in whatever form) contestable, and not worry about the number of firms in the market
- reference to the fact that monopolistically competitive sectors have very low barriers to entry so are likely to be highly contestable
- monopolistic competition: picking up on the question's reference to excessive advertising spending (much of which is of little social benefit), excessive product differentiation and choice for consumers (too much choice?)
- examples of successful/unsuccessful regulatory interventions
- the ability of markets to reduce information asymmetries via, e.g. review websites, product testing websites
- the need for oligopoly regulation - anti-cartel investigation and enforcement, increasing competition via breaking up incumbents or encouraging start-ups or international competitors
- reference to The Competition and Markets Authority and sectoral regulators such as Ofgem and Ofwat
- different approaches to the regulation of monopolies
- allocative/productive/dynamic efficiency/X-inefficiency
- issues related to consumer/producer surplus
- issues related to economies of scale or natural monopolies
- the different types of government regulation – economic/health & safety/consumer rights, etc.
- market failure arguments
- government failure arguments.

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

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

[25]

10.

Response	Max 4 marks
- includes evidence that shows that the UK parcels delivery market is displaying dynamic efficiency. - clearly explains how this data is evidence that the UK parcels delivery market is displaying dynamic efficiency.	4 marks
- includes evidence that shows that the UK parcels delivery market is displaying dynamic efficiency. - unclear explanation of how this data is evidence that the UK parcels delivery market is displaying dynamic efficiency.	3 marks
- includes evidence that shows that the UK parcels delivery market is displaying dynamic efficiency. - limited or no explanation of how this data is evidence that the UK parcels delivery market is displaying dynamic efficiency.	2 marks
- includes evidence that does not clearly show that the UK parcels delivery market is displaying dynamic efficiency. - weak or no explanation of how this data is evidence that the UK parcels delivery market is displaying dynamic efficiency.	1 mark

Relevant issues include:

- explanation of the concept of dynamic efficiency
- revenue per employee has grown from approximately £160 000 in 2008 to £290 000 in 2014
- the number of employees in the sector has fallen from approximately 58 000 in 2008 to 47 000 in 2014
- these trends suggest that each employee has become more productive over time
- explanation of how this is likely to have been caused by improvements in technology, organisation, investments in capital.

[4]

11.

C

[1]

12.

Calculation:

$$32.8\% + 10.4\% + 10.3\% = 53.5\%.$$

Response	Max 2 marks
For the correct answer to one decimal place	2 marks
For the correct answer without the % sign and/or not to one decimal place	1 mark

[2]

13.

A

[1]

14. C

[1]

15. B

[1]

16. **Areas for discussion include:**

- explanation of 'inefficiently managed'
- distinction between firms operating in monopoly markets from those in competitive markets, and how profits may indicate monopoly power rather than good management
- discussion of objectives of firms, including the divorce of ownership from control, sales maximisation, revenue maximisation and other objectives
- in a profit-maximising monopoly firm, low profit may indicate the firm is badly run, perhaps due to x-inefficiency or diseconomies of scale
- alternatively, the firm could be attempting to prioritise scale, rather than profits at least in the short-run
- short-run vs long-run objectives of firms, and how these are influenced by the ownership of the firm, eg family firm vs listed firm vs nationalised firm
- in highly competitive industries, firms must be well run if they are to survive, but they are unlikely to be making any supernormal profits in the long run
- some industries are inherently less profitable, because of high costs, low degree of risk or low demand
- high levels of market contestability may result in low profits
- sometimes unexpected events can affect profitability (eg changing trends, environmental disasters, terrorism) which affect profits beyond the control of the firm's management)
- examples of firms which support the question's claim, and those which do not
- the impact of government intervention on profitability
- the practice by some firms of disguising profitability to avoid paying corporation tax.

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

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

[25]

17.

Areas for discussion include:

- what is meant by technological progress
- the historical impact of technological progress and how it has affected labour markets
- current issues around technological unemployment (eg self-service supermarket checkouts, driverless trucks, self-service ticket machines)
- the likely impact on jobs and wages
- concerns about the impact of technological progress on inequality and poverty, linked to regional and sectoral differences (making use of Extract D)
- labour market imperfections which make it difficult for unemployed worker to transfer into other jobs or locations
- how automation is now threatening well-paid, high-status jobs such as surgeons and accountants, not only manufacturing or retail work, and that the determining factor for automation risk is whether the tasks are routine or varied
- the optimists' argument that robots will only be used where profit can be made, and this requires a customer base who need to have a source of income (most likely to come from wages)
- the benefits of allowing the price mechanism to function
- analysis and assessment of the consequences of technological progress as a result of dynamic efficiency on costs, output, quality in product markets
- analysis and assessment of: the UBI proposal, a robot tax, retraining programmes, job creation programmes or any other appropriate form of intervention
- discussion of possible government failure when designing policies in such a fast-moving area
- the case against intervention, to allow market forces to redistribute labour and other factors of production to where they are demanded
- the view that the basic economic problem of scarcity is unlikely to be solved and hence new jobs will always be created to replace those that are lost
- evaluation of how much automation is actually a problem that needs to be addressed
- market failure arguments
- government failure arguments.

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

[25]

18.**Areas for discussion include:**

- definition of profit, normal profit, supernormal profit, firm
- the need for firms to make at least normal profit to remain in their present use, including short run vs long run requirements
- firms use of supernormal profits as a necessary inducement for risk-taking, source of investment funds, as a reward to the owners of the firm, as an indicator of the firm's health as a going concern and as a source of working capital
- the role of profit in the wider economy
 - as the incentive to establish and run any enterprise in a free market economy
 - investment in technology and innovation, eg public benefits of new drugs
 - as a source of income, especially for pensioners
 - as a signalling device for high growth industries, to promote the efficient allocation of resources within an economy
 - as a source of tax revenue.

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

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

[15]

19.**Areas for discussion include:**

- explanation of competition and the range of government policies to foster competition
- discussion of the nature of the UK banking sector and the historic dominance of Lloyds, Barclays, RBS Natwest and HSBC
- awareness of recent changes to the market structure, eg
 - 2008 financial crisis – Northern Rock, Bradford & Bingley bankruptcies
 - Lloyds-HBOS merger, TSB demerger
- innovation in the banking sector, resulting in a move away from FIIC accounts towards packaged accounts and cashback
- Big Four problems over unwieldy and costly IT infrastructure, diseconomies of scale and scope
- barriers to entry in the banking sector, including
 - legal/regulatory
 - physical, eg branch network
 - financial, eg start-up capital required
 - customer inertia (link to behavioural economics)
- comparison with other utilities' contestability
- discussion of possible policies, including
 - breaking up large banks (eg demerger of TSB and Lloyds, and attempted sale by RBS of Williams and Glyn)
 - price regulation
 - improving information in the market, eg price comparison websites and Customer Switching Service
 - nudge/behavioural policies (as per CMA Review)
- recent rise in new entrants and connection to the rise of internet banking
- benefits of competition
- benefits of concentration, eg economies of scale, high MES, high profits facilitating innovation
- the impact of market forces, creative destruction and new technology in the banking sector
- are the banks exploiting consumers, including possible collusion?
- the role of the Bank of England, the PRA and the FPC
- market failure arguments
- government failure arguments.

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

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

[25]

20.

Response	Max 4 marks
- includes evidence that shows that workers in routine, repetitive work are at greater risk of automation than those whose work involves more variety - clearly explains how this data is evidence that workers in routine, repetitive work are at greater risk of automation	4 marks
- includes evidence that shows that workers in routine, repetitive work are at greater risk of automation than those whose work involves more variety - unclear explanation of how this data is evidence that workers in routine, repetitive work are at greater risk of automation	3 marks
- includes some limited evidence that shows that workers in routine, repetitive work are at greater risk of automation than those whose work involves more variety - limited explanation of how this data is evidence that workers in routine, repetitive work are at greater risk of automation	2 marks
- includes evidence that does not clearly show that workers in routine, repetitive work are at greater risk of automation than those whose work involves more variety - no explanation of how this data is evidence that workers in routine, repetitive work are at greater risk of automation.	1 mark

Relevant issues include:

- explanation of automation
- why workers in routine, repetitive work are at greater risk from automation
- how work in some sectors involves more varied, non-routine, skilled tasks than others
- wholesale and retail is the sector with the largest at-risk workforce (2.25 million)
- water, sewage and waste (62.6%), transport and storage (56.4%) and manufacturing (46.4%) are the sectors at highest risk if automation. All these sectors have a high proportion of workers employed in repetitive routine work
- the sectors at lowest risk include education (8.5%) and human health (17.0%), and professional, scientific and technical (25.6%). All these sectors have workers employed in very varied tasks.

[4]

21.

Response	Max 4 marks
- includes evidence that shows that the market power of the Big Four is weakening against competition from smaller rivals - clearly explains how this data is evidence of weakening Big Four market power.	4 marks
- includes evidence that shows that the market power of the Big Four is weakening against competition from smaller rivals - unclear explanation of how this data is evidence of weakening Big Four market power.	3 marks
- includes some limited evidence that shows that the market power of the Big Four is weakening against competition from smaller rivals - limited explanation of how this data is evidence of weakening Big Four market power.	2 marks
- includes evidence that does not clearly show that the market power of the Big Four is weakening against competition from smaller rivals - no explanation of how this data is evidence of weakening Big Four market power.	1 mark

Relevant issues include:

- explanation of the concept of market power
- factors that determine market power, eg market share, degree of competition
- the Big Four as a group have gained approximately 485 000 but lost 670 000, a net loss of 185 000
- Barclays and RBS Natwest have been the biggest net losers (100 000 and 115 000 respectively)
- Santander, TSB, Nationwide and others have gained approximately 435 000 but lost 253 000, a net gain of 182 000
- Nationwide and Santander are the biggest net gainers (110 000 and 83 000 respectively)
- Lloyds goes against the trend of the Big Four, by gaining customers.

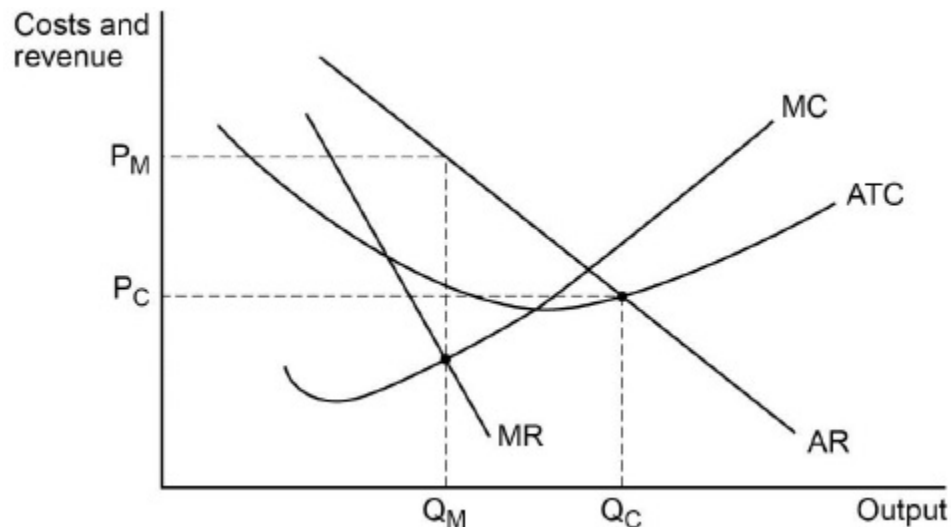
Note: Please allow a margin of +/- 5000 customers per bank.

[4]

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

Suggested Diagram:

- a monopoly diagram is expected, showing a firm profit maximising initially, but subsequently reducing prices closer to (or at) normal profit. A monopolist facing potential entrants in a contestable market would fear entry and reduce price from P_M to P_C , with profits falling to just normal profits



- other reasonable diagrams are acceptable, eg monopolistic competition with the AR/MR shifting left because of entry.

Relevant issues include

- explanation of contestability and barriers to entry in the banking industry
- explanation of “new players”, including examples, such as Metro Bank
- why increased competition usually reduces prices and profits
- analysis of how supernormal profits can be driven towards zero by the presence (or even mere threat) of new entrants
- reference to increasing innovation and focus on customer service of new entrants
- explanation of how improving the customer switching service may reduce customer inertia
- reference to falling revenue per customer.

[9]

23.

Calculation:

$$153000/43000 = 3.558$$

Correct answer is 3.6:1, also allow 3.5:1, 3.7:1; or 1:0.3

Response	Max 2 marks
For the correct answer to one decimal place	2 marks
For the correct answer but not expressed as a ratio and/or not to one decimal place and/or not reduced to its simplest form	1 mark
For the answer expressed as a ratio of customers lost to customers gained, ie 0.3:1; or 1:3.6, also allow 1:3.5, 1:3.7	1 mark

[2]

24.

C

[1]

25.

Areas for discussion include:

- what is meant by 'firm'
- explanation of profit, drawing a distinction between normal and abnormal profit
- explanation of profit maximisation
- why profit is usually an important objective
 - reward to enterprise
 - source of finance for investment
 - signalling corporate health to shareholders
- how firms in perfectly competitive sectors have little choice but to pursue profit-maximisation but firms with monopoly power have greater flexibility
- how ownership of the firm affects behaviour and performance
- how the divorce of ownership from control and the principal-agent problem affect behaviour and performance
- revenue maximisation and sales maximisation as alternative objectives
- limitations to the feasibility of pursuing profit maximisation, for example the difficulty many firms face in calculating marginal revenue and marginal cost
- discussion of profit satisficing rather than maximising
- sales growth as a goal in itself, or as a short-term means to a long-term goal of profit maximisation
- non-financial objectives such as environmental goals and corporate social responsibility
- whether the assumption of profit-maximisation is any more or less valid than in the past
- examples of firms which have/have not pursued the aim of profit maximisation.

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

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

[25]