

OCR A-LEVEL ECONOMICS • H460

ECONOMICS



EXAM QUESTION PACK

INTRODUCTION TO MICROECONOMICS

SCORE

/161

PERCENTAGE

%

STEMUP

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1

Some economists claim that the Royal Mail was more efficient when it was a monopoly.

Evaluate, using an appropriate diagram(s), whether a monopoly will be efficient.

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Handwriting practice lines consisting of 20 sets of three horizontal dashed lines.

Handwriting practice lines consisting of 20 sets of three horizontal dashed lines.

[25]

2 * Estonia continues to increase the role of market forces in its economy.

Evaluate whether operating a market economy is the best way to allocate resources.

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3 Which of the following is a need?

- A Clothing
- B Holiday entitlement
- C Internet connection
- D Television

Your answer

[1]

4

Extract 1 – The challenge of affordable housing

Average house price growth of nearly 10% in 2015 has contributed to an increasing crisis in the availability of affordable housing in the UK. Demand for housing has been fuelled by sustained record low interest rates, population growth resulting from immigration and changing lifestyles increasing the number of single occupier households. With rates of house building falling significantly below the rate of household formation, the shortage of properties on the market has contributed to rapidly rising prices. The increase in prices has been most rapid in London, where average prices increased by £500 a day in January 2016.

One method of measuring the affordability of housing is to study the ratio of house prices to average earnings, which by the end of 2015, had reached 5:1. This exceeded the ratio of approximately 4:1 during the housing boom of the late 1980s, evidence that the housing market is in danger of overheating.

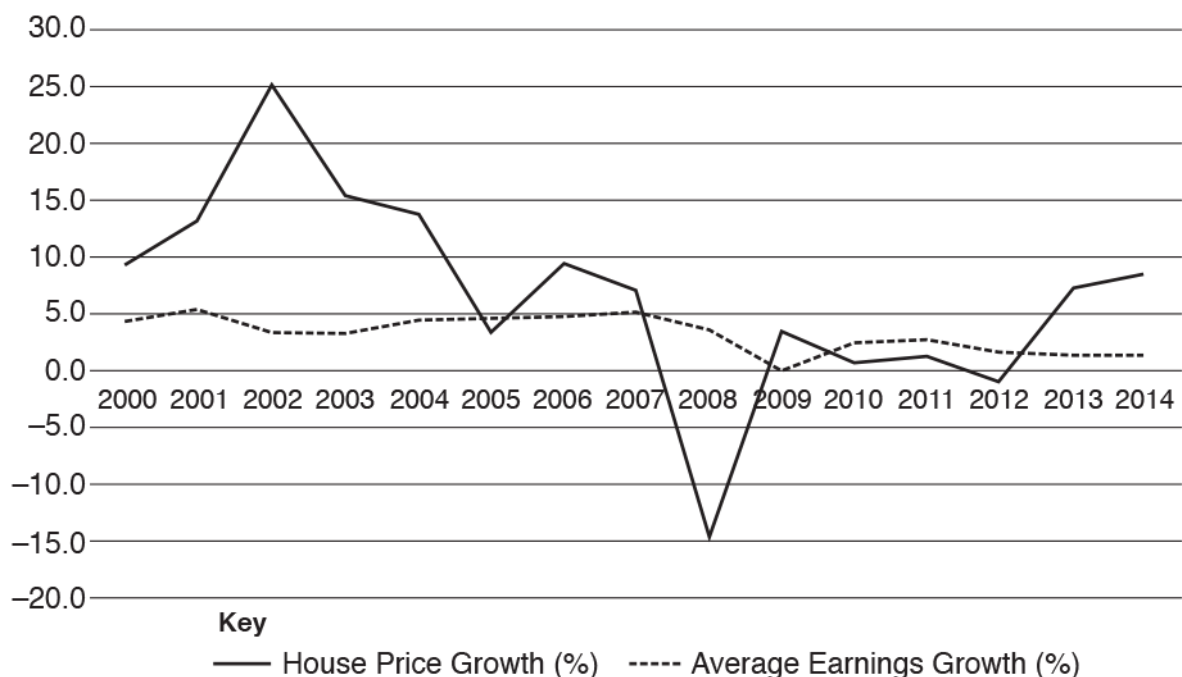


Fig. 1.1 – House Price & Earnings Growth 2000–2014

In the 2015 Autumn Statement a number of policy reforms designed to tackle the rise in house prices were

announced. One reason for the rise in house prices has been the increased number of buy to let investors, who purchase property as an investment which they then let out on the private rental market. As well as removing tax relief on mortgage interest payments, the Chancellor introduced a 3% additional stamp duty rate on any property bought as a buy to let or second home. This was in addition to the stamp duty already charged on the purchase of residential property. These reforms were designed to reduce significantly the incentives to invest in this market and prevent further upward pressure on house prices.

Further steps to make purchasing a house more affordable were taken in the March 2016 Budget; the Chancellor announced the 'Lifetime ISA'. Prospective homebuyers are incentivised to save up to £4,000 a year for a new home by the government offering a 25% bonus on all money saved. Alongside the Help to Buy Equity Loans scheme introduced in 2013, which gives individuals access to a 20% equity loan from the government, it is hoped this policy will make it significantly easier for first time buyers to secure the deposits they need to get a foot on the property ladder.

Extract 2 – Promoting the development of infrastructure

Central to the government's strategy to make housing more affordable is the need to significantly increase the rate of house building. However, despite a range of policy initiatives designed to achieve this, such as the relaxation of planning regulations, activity in the construction industry remains weak. Questions have been raised over whether developers are deliberately restricting supply of housing in order to keep prices artificially high. Even with the rising prices experienced in recent years, house building is still occurring at less than two thirds of the level witnessed in the pre-financial crisis peak, when the number of houses constructed each year regularly exceeded 200,000. This has raised a question over whether developers are deliberately restricting the supply of housing in order to keep prices artificially high.

Fig. 2.1 – Average House Price & House Building 2009–14		
Year	House Price	Houses Built
2009	£162,116	158,370
2010	£162,971	136,590
2011	£164,785	140,600
2012	£162,924	141,530
2013	£174,444	135,350
2014	£189,002	144,970

However, many environmentalists argue the relatively slow rate of house building is no bad thing. A particularly contentious debate exists around building on 'green belt' land, which accounts for approximately 10% of the UK's land. This has been protected from development by legislation that has been in place since 1947. It is designed to prevent urban sprawl and the loss of green space. As the need for more housing becomes more severe the Government is considering allowing some development to take place on this protected land; in late 2015 it announced 'starter' homes, to be sold at a 20% discount off the market rate, could be built on green belt land. This has led to great concern about the potential damage such building could do to areas of outstanding natural beauty and the habitat of wildlife. Such harms, however, need to be balanced against the potential benefits such

development could bring – not only in terms of lower house prices, but also long term environmental benefits that could be delivered from more people living in modern, well insulated and energy efficient accommodation.

As well as building more houses, the government is attempting to reduce the pressure on overpopulated areas in the south of England by aiming to develop a ‘Northern Powerhouse’. Cities such as Hull, Liverpool and Newcastle have all suffered from the migration of young professionals to London where more attractive employment prospects are on offer. This migration has driven up house prices in the south and harmed the economic prosperity of the north. Central to the government’s strategy to address this is the development of HS3 – a new, taxpayer-funded, high-speed railway across the Pennines connecting Liverpool, Manchester, Leeds, Hull and Newcastle. A report by the National Infrastructure Commission in March 2016 noted “A better connected north will be better for jobs, better for families and better for Britain. The work should begin as quickly as possible”.

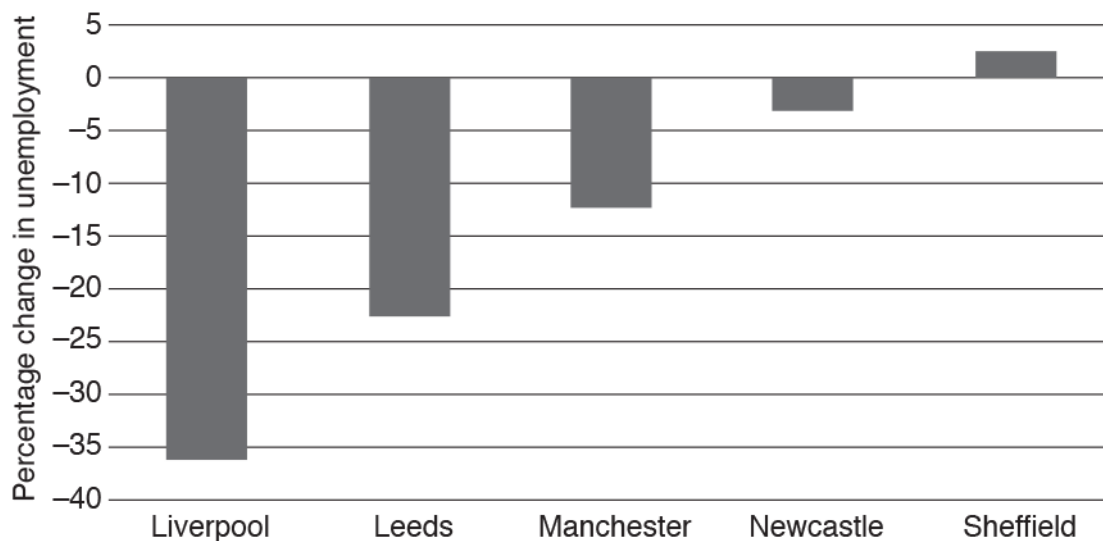


Fig. 2.2 – Projected impact of HS3 on regional unemployment rates

Critics argue such investment represents wasteful ‘vanity’ spending and cannot be justified at a time when there are competing pressures on public spending. They point to the inability of high speed rail to deliver the promised return on investment elsewhere in the world as proof that the scheme should not go ahead.

Extract 3 – Housing in developing and emerging countries

Half of the world’s population lives in urban areas and 80% of future population growth is expected to be in urban areas. Much of this population growth will take place in developing and emerging countries. Relatively high rates of economic growth in recent years have not been matched by growth in the supply of good quality housing. Policy failings, a lack of political will, poor access to finance and insufficient infrastructure have all contributed to the insufficient supply of affordable dwellings. This is a particular problem in many Latin American cities where it is estimated as many as 66% of the households established each year settle into informal housing such as slums.

Fig. 3.1 – Latin American growth rates & housing quality			
Country	Average GDP growth rate 2010–2014 (%)	% of total households homeless or living in poor quality houses	HDI value (2014)
Brazil	3.62	33	0.744
Chile	3.88	23	0.822
Costa Rica	3.28	18	0.763
Mexico	1.95	34	0.756
Paraguay	3.72	43	0.676
Peru	6.70	72	0.737

It is unlikely that any one policy measure alone would be sufficient to overcome this problem – nearly 10% of GDP would need to be dedicated to public housing programmes if Latin American governments were to use tax revenue to provide enough affordable houses. Therefore, alongside increased public spending there is a need to incentivise more private providers to enter the construction industry. This is however likely to require further infrastructure spending as well as the development of more formal financial systems.

Please refer to the insert **H460-03 June 2017, Housing**, which can be downloaded separately. Its text is included above.

Using the information in Extract 1, explain how the problem of scarcity can be applied to the housing market.

[2]

5 What is a free good?

- A A good that is available with no opportunity cost
- B A good that is non-excludable and non-rival
- C A good that is provided by the government
- D A good that is scarce

Your answer

[1]

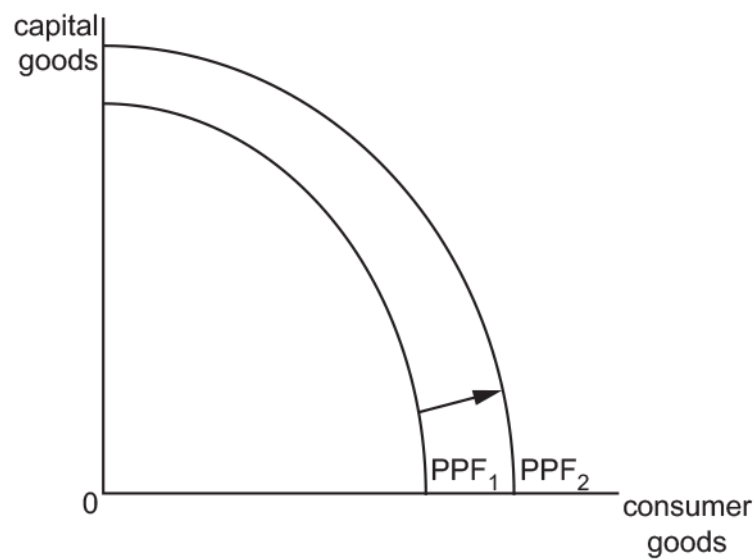
6 Danielle has just been appointed to manage a large public limited company that has a range of stakeholders, including shareholders, employees and customers. Which business objective is Danielle most likely to pursue?

- A Profit maximisation
- B Profit satisficing
- C Revenue maximisation
- D Utility maximisation

Your answer

[1]

7 Which of the following could have caused the shift from PPF_1 to PPF_2 illustrated in the diagram below?



- A A decrease in unemployment
- B A natural disaster
- C An increase in immigration
- D A reallocation of resources from the production of capital goods to consumer goods

Your answer

[1]

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[25]

- A Allocative inefficiency
- B Moral hazard
- C Relative poverty
- D The basic economic problem

[1]

10 Which of the following options correctly identifies the rewards to the factors of production?

Option	Labour	Land	Capital	Enterprise
A	Interest	Profit	Wages	Rent
B	Profit	Interest	Rent	Wages
C	Rent	Wages	Profit	Interest
D	Wages	Rent	Interest	Profit

Your answer

☐

[1]

11 Which of the following is a feature of a planned economy?

- A Decisions are made by individuals and firms engaging in maximising behaviour
- B The government owns and allocates all resources
- C The market forces of demand and supply dictate the country's workings of the economy
- D The price mechanism plays a central role in allocating resources

Your answer

☐

[1]

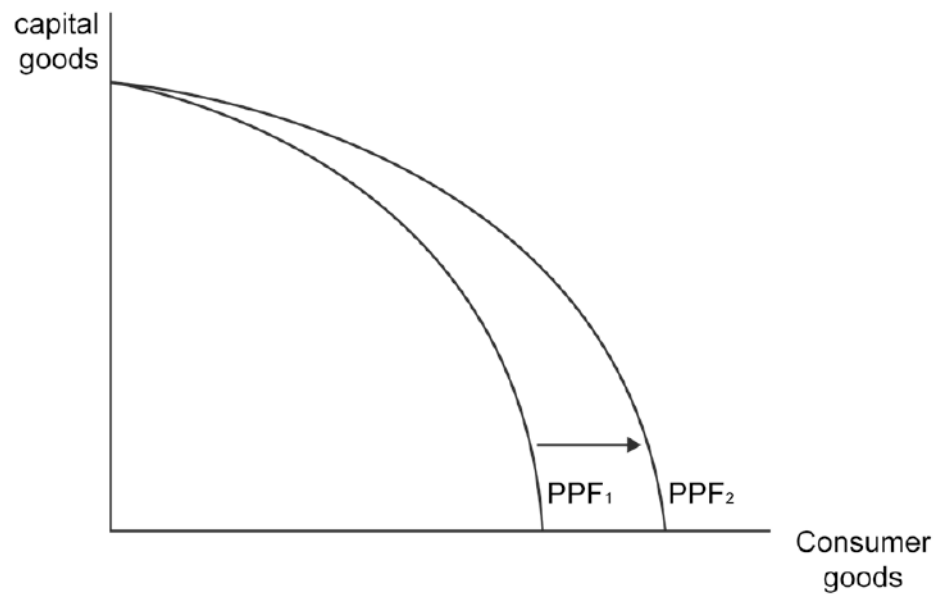
12 Which of the following is a positive statement?

- A Economic growth is a more important macroeconomic objective than redistributing income.
- B Increasing the minimum wage resulted in increased unemployment.
- C It is unfair that multinationals can conduct their operations in a way which allows them to minimise their tax bills.
- D The UK should leave the European Union.

Your answer

☐

[1]



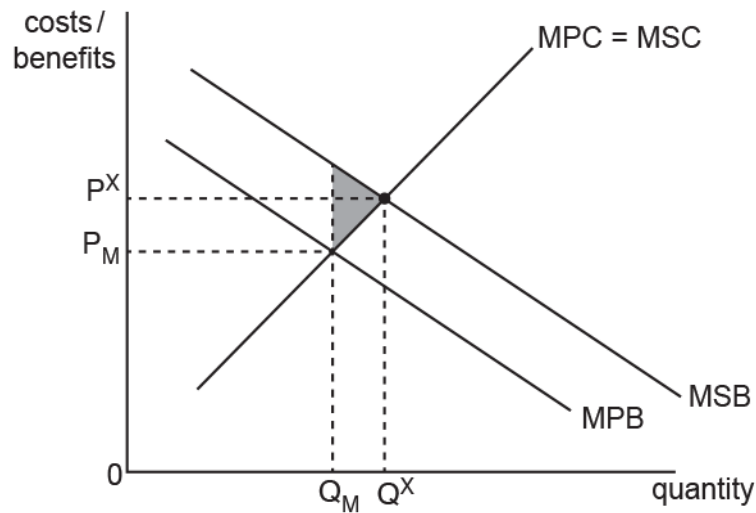
What would cause a shift in the production possibility frontier from PPF_1 to PPF_2 ?

- A An increase in the opportunity cost of producing capital goods
- B An increase in the opportunity cost of producing consumer goods
- C A rise in the production of capital goods
- D A rise in the production of consumer goods

Your answer

[1]

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



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

Your answer

[1]

15 The average age at which people are buying their first home in the UK is now 31 years old. Although survey evidence indicates individuals in their 20's would like to own a property, many choose to rent at the start of their working life in order to have enough money to spend on holidays and leisure activities. What is this an example of?

- A Allocative inefficiency
- B Moral hazard
- C Relative poverty
- D The basic economic problem

Your answer

[1]

16 Which of the following options correctly identifies the rewards to the factors of production?

Option	Labour	Land	Capital	Enterprise
A	Interest	Profit	Wages	Rent
B	Profit	Interest	Rent	Wages
C	Rent	Wages	Profit	Interest
D	Wages	Rent	Interest	Profit

Your answer

[1]

17 Which statement explains the term 'productive efficiency'?

- A The level of output at which average cost is at its lowest
- B The level of output at which marginal cost is at its lowest
- C The level of output at which marginal cost is equal to average revenue
- D The level of output at which marginal cost is equal to marginal revenue

Your answer

[1]

18 Which of the following is the fundamental problem facing all economies?

- A The danger of deflation
- B Frictional unemployment
- C What, how and for whom to produce
- D The unequal distribution of income

Your answer

[1]

- 19 Statement 1: Qatar is more economically developed than Norway because GDP per capita is \$127 660 USD in Qatar and \$69 249 USD in Norway.

Statement 2: The claimant count rate of unemployment is higher in Norway than in Qatar.

Which of the following correctly categorises these statements?

	Statement 1	Statement 2
A	Normative	Normative
B	Normative	Positive
C	Positive	Normative
D	Positive	Positive

Your answer

[1]

- 20 What is the reward for capital?

- A Interest
- B Profit
- C Rent
- D Wages

Your answer

[1]

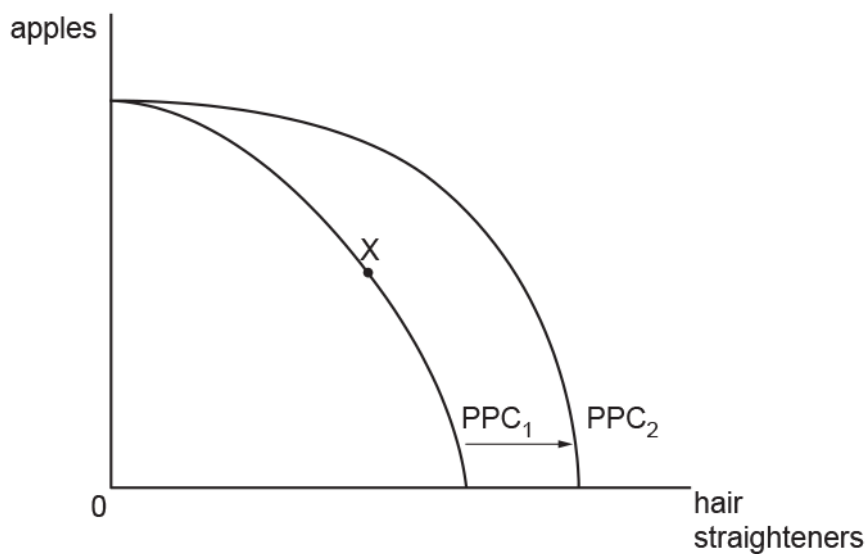
- 21 What is the reward to labour as a factor of production?

- A Interest
- B Profit
- C Rent
- D Wages

Your answer

[1]

- 22 An economy in which apples and hair straighteners are produced is initially operating at point X. If the production possibility curve shifts from PPC_1 to PPC_2 , which of the statements identifies the change in the production possibilities?



- A It is not possible to increase the production of either apples or hair straighteners
- B It is only possible to increase the production of apples
- C It is only possible to increase the production of hair straighteners
- D It is possible to increase the production of both apples and hair straighteners

Your answer

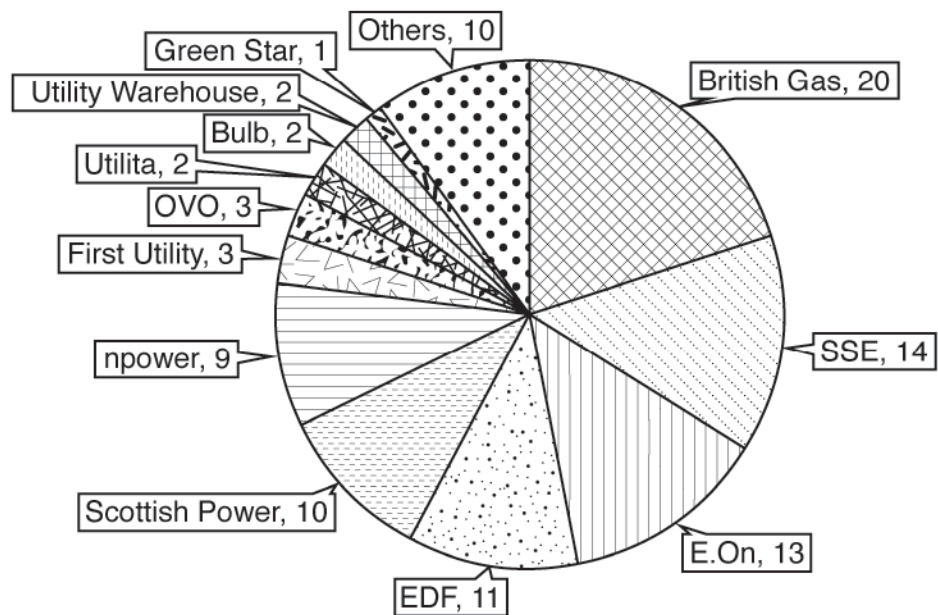
[1]

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

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

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

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



Source: OFGEM

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

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

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

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

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

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

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

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

Draw a PPC diagram to explain the following statements:

- (i) with dependable electricity, GDP growth across sub-Saharan Africa could be up to 2% per annum higher than current rates (lines 8–9);

[2]

- (ii) Uganda has seen a fall in the agriculture sector's contribution to GDP at the same time as growth in the service sector's contribution. (lines 16–18).

[2]

(b) * The concept of rationality helps economists to understand the behaviour of economic agents.

Evaluate, using evidence from the stimulus material, how rationality may help us to understand the behaviour of firms.

[12]

24 * According to scientists, there are at least half a million pieces of space rubbish in the earth’s atmosphere.

Delhi, India’s capital city, sees 80 deaths a day due to air pollution.

Evaluate how the problem of scarcity can be used to explain the requirement to make choices between free goods and economic goods. [25]

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[illegible]

25 * China is the world’s second largest economy, has the fastest growing consumer market and is the second largest importer of goods – all from a centrally planned economy. However, more than 50% of China’s surface water is not fit for human consumption.

Evaluate whether economic incentives are required to achieve an efficient allocation of resources. [25]

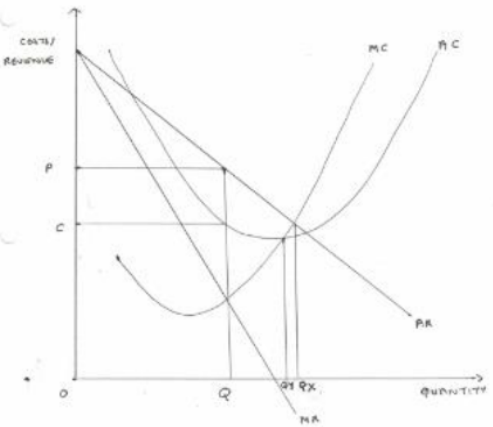
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END OF QUESTION PAPER

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
1	Some economists claim that the Royal Mail was more efficient when it was a monopoly. Evaluate, using an appropriate diagram(s), whether a monopoly will be efficient. Level 5 (21–25 marks) Good - Strong knowledge and understanding of a monopoly market structure and different types of efficiency. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of whether a monopoly will be efficient, weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of a monopoly market structure and different types of efficiency. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i>	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	There are a number of reasons why a monopoly may be inefficient. The market power enjoyed by the firm may encourage it to restrict the quantity it sells and drive up price. The diagram shows the monopoly selling a quantity of Q. This quantity is below the allocatively efficient level of QX. The firm's profit maximisation quantity ($MC = MR$) is less than the allocatively efficient quantity where $MC = P$ (AR).  Lack of competition may also result in productive inefficiency. The diagram shows that the firm is producing where AC is still falling. This quantity is below the productively efficient quantity of QY where $MC = AC$. As well as a monopoly not producing at the lowest point on the average cost curve, it may also not produce on the lowest possible AC curve. This is because it may experience X-inefficiency. The lack of competition may reduce the incentive for the firm to reduce, for example, overmanning and higher than necessary stock levels. In addition, a monopoly may be dynamically inefficient. It may not feel the pressure to innovate to improve the quality of its products. Customers may not be particularly happy with the quality of the firm's product but if there are no substitutes, they may still buy it. It is, however, possible that a monopoly may be more dynamically efficient than a

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	Level 3 (11–15 marks) Good knowledge and understanding of a monopoly market structure and different types of efficiency. Good analysis of whether a monopoly will be efficient. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of whether a monopoly will be efficient, considering both sides/comparing alternatives. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of a monopoly market structure and different types of efficiency. Reasonable analysis of whether a monopoly will be efficient. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation of whether a monopoly will be efficient, considering both sides/comparing alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of whether a monopoly will be efficient. Limited or no analysis of whether a monopoly will be efficient. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled.		more competitive firm. This is because it may have large amount of supernormal profit. Some of this may be reinvested in new equipment embodying advanced technology and in training its workers. Knowledge that, if it has high and effective barriers to entry, it may be able to keep any extra profit generated by improving the quality of its product may encourage it to invest. While not having actual competition, a monopoly may have potential competition. New firms and firms producing other products may be trying to enter the market. This may encourage the monopoly to charge a lower price than the profit maximising price to discourage the entry of other firms into the market. As well as engaging in limit pricing, a monopoly may also raise the quality of its product to build up brand loyalty in case of the entry of rival firms. The existence of a monopoly with high barriers to entry may encourage firms outside the market to develop new and better versions of the product so as to overcome barriers such as patents and brand loyalty. While price may be above marginal cost, it may still be lower in a monopoly than in a more competitive market. This is because the monopoly may be able to enjoy economies of scale. Even with a high profit per unit, a lower average cost can result in a lower price. Economies of scale are especially significant in the case of a natural monopoly. In this case, a monopoly can supply the market at a lower price than two or more firms. Fixed costs are high, so that average cost falls over a large range of output. Whether or not a monopoly is efficient or not is also influenced by the objectives followed by the firm. For instance, a state-owned monopoly may seek to achieve allocative efficiency. It might also be more likely to take into account social costs and benefits than a more competitive firm producing in the private sector. A monopoly is more likely to be efficient if it faces potential competition, if it produces a high output and so is able to take

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance										
			Limited evaluation of whether a monopoly will be efficient in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr><tr><td>On the borderline of this level and the one below</td><td>At bottom of level</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)	On the borderline of this level and the one below	At bottom of level		advantage of economies of scale and if it is seeking to be efficient. <u>Examiner's Comments</u> This attracted very many responses which were of high quality. The strongest responses had a very good understanding of the different types of efficiency and were able to use diagrams to analyse and evaluate how likely these were to be achieved in a monopoly market structure. In the main, diagrams were fully integrated into responses with effective links between particular outputs which were or were not likely to be efficient. The best responses made clear distinctions between allocative, productive, dynamic and X efficiency and structured their arguments coherently. As in the previous question, conclusions tended to summarise rather than judge although the best candidates recognised that the degree of efficiency depended on government regulation of monopolies and the objectives of firms.
Descriptor	Award mark														
Consistently meets the criteria for this level	At top of level														
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)														
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)														
On the borderline of this level and the one below	At bottom of level														
			Total	25											

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
2	Estonia continues to increase the role of market forces in its economy. Evaluate whether operating a market economy is the best way to allocate resources. Level 5 (21–25 marks) Good -Strong knowledge and understanding of the market economy and resource allocation. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of the contribution of whether operating a market economy is the best way to allocate resources, weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of the market economy and resource allocation. Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i>	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	A market economy relies on the price mechanism to allocate resources. This is an automatic system that can allow consumers to be sovereign, determining what is produced. It signals to producers changes in consumer demand. It provides an incentive, in the form of profit, to encourage producers to move their resources to making those products experiencing an increase in demand and away from those experiencing a decrease in demand. The profit incentive can also encourage firms to be efficient. If there are a number of firms competing in the market, the one that produces at the lowest average cost, which is most responsive to changes in consumer demand and is the most innovative will earn the highest profit. Competition provides consumers with choice. This gives them the power to switch from less efficient to more efficient producers. Workers have an incentive, in the form of higher wages, to be productive. Those workers who have the skills in the greatest demand, will earn the highest wages. There are, however, a number of reasons why a market economy may not be the best way to allocate resources. One is that some producers may develop market power in both product and labour markets. A lack of competition may raise prices, reduce quality and make the firm or firms less responsive to changes in consumer demand. A monopsony employer may keep wages low and provide poor working conditions. Producers in a pure market economy will have no incentive to allocate resources to producing public goods. This is because they will have not be able to make consumption of the goods dependent on payment. Merit goods will be under-consumed as consumers will not be fully aware of their true benefits and because they do not take into the external benefits created. As a result of the under-consumption, merit goods will be under produced – there will not be enough

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	Level 3 (11–15 marks) Good knowledge and understanding of the market economy and resource allocation. Good analysis of whether operating a market economy is the best way to allocate resources. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of whether operating a market economy is the best way to allocate resources. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of the market economy and resource allocation. Reasonable analysis of whether operating a market economy is the best way to allocate resources. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation of whether operating a market economy is the best way to allocate resources. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of the market economy and resource allocation. Limited or no analysis of whether operating a market economy is the best way to allocate resources. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure.		resources allocated to their production. In contrast, too many resources will be devoted to producing demerit goods. They will be overconsumed as consumers will not be fully aware of their harmful effects and will not take into account the external costs they generate. Consumers and producers base their consumption and production decisions on private costs and private benefits. The failure to base decisions on social costs and social benefits will result in resource allocation being socially inefficient. It is possible that resource allocation may also be inefficient because of the immobility of factors of production. For instance, if labour is occupationally and/or geographically immobile, there may not be enough workers to make more popular products while there may also be unemployed workers. A market economy may allocate resources in a way that benefits consumers with high income. Poor consumers, however, will have less influence on what is produced. A market economy has a number of potential advantages including encouraging entrepreneurship and innovation but most economists accept the need for some government intervention to correct the market failure that may arise. Where economists disagree is the extent to which the government should intervene. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level. Examiner's Comments This was a popular question choice. Responses were more variable in quality than those in Section B, however. Weaker responses tended to assert the advantages of the market economy in allocating resources rather than develop logical, coherent and supported chains of reasoning. Responses could have been improved by reference to the functions of

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance										
			The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of whether operating a market economy is the best way to allocate resources in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr><tr><td>On the borderline of this level and the one below</td><td>At bottom of level</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)	On the borderline of this level and the one below	At bottom of level		the price mechanism and how these helped to allocate resources. The best responses showed how the price mechanism signalled, rationed and incentivised economic agents to ensure that resources were allocated both to maximise consumer benefit, to ensure that prices reflected marginal costs and that output from a given set of resources was maximised. Although not required by the question, stronger candidates found the use of diagrams helpful in analysing these benefits of the market economy. On the whole, reasons why the market economy might not be the best way to allocate resources was tackled more effectively. There was valid reference to cases of social benefits exceeding private benefits, social costs in excess of private costs and the prevalence of market power. Stronger responses were able to develop chains of reasoning from these various disadvantages to the consequent market failures and the misallocation of resources. As with all of the responses to the essay questions, top marks went to candidates who could go beyond a summary of the arguments adduced and provide effective and well supported judgements.
Descriptor	Award mark														
Consistently meets the criteria for this level	At top of level														
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)														
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)														
On the borderline of this level and the one below	At bottom of level														
			Total	25											
3			A	1 (AO1)	Rationale A Correct: This is essential for survival. B This is a want, it is possible to survive without it. C This is a want, it is possible to survive without it. D This is a want, it is possible to survive without it.										
			Total	1											

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
4			Using the information in Extract 1, explain how the problem of scarcity can be applied to the housing market. <i>Award 1 mark for identifying high/rising wants/needs with application to Extract 1:</i> - Population growth/immigration/rise in single occupier households/low interest rates have meant that wants/needs are high/rising (i) <i>Award 1 mark for identifying limited resources with application to Extract 1:</i> - Housing stock is limited because the rate of house building is falling (ii)	2 (AO1 x 1) (AO2 x 1)	Do not credit a definition of scarcity unless it is followed by an application of wants/needs and/or limited resources to Extract 1. Rising demand for housing is insufficient for the application of high/rising wants/needs. Falling supply of houses/limited amount of houses is insufficient for the application of limited resources. <u>Examiner's Comments</u> This question was poorly answered, with few candidates able to identify the appropriate material from Extract 1 to support a correct technical explanation of the concept of scarcity. Many answers mentioned unlimited wants and 'rising demand' for housing and there being a limited number of houses but few linked this to the specific evidence in Extract 1 about why wants for housing are rising or that the rate of house building is falling. Others incorrectly attempted to explain scarcity through supply and demand.
			Total	2	
5			A	1 (AO1)	Rationale A Correct: there is no scarcity associated with the provision of free goods as they are unlimited. B This is a public good. C Receiving a good for free does not mean it is a free good – for example, healthcare in the UK is provided for free but there is an economic cost in terms of choices over how the government allocates its budget. D This is an economic good.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
6			B	1 (AO2)	Rationale A Whilst the shareholders are incentivised by profit there are many other stakeholders motivated by different objectives, meaning this is unlikely. B Correct: Danielle will most likely aim to achieve a level of profit that satisfies the shareholders whilst also pursuing other objectives such as revenue maximisation to boost her bonus. C Danielle is answerable to shareholders so is unlikely to pursue revenue maximisation at all costs for fear of losing her job. D Utility maximisation is more likely to be seen in the public or voluntary sector.
			Total	1	
7			C	1 (AO3)	Rationale A A decrease in unemployment will move production closer to the PPF rather than shift it. B This could decrease the stock of land or capital, causing the PPF to shift inwards. C Correct: immigration increases the size of the labour force, causing productive capacity to increase. D This represents a movement along the PPF.
			Total	1	

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
8	Within any economy there is a great deal of specialisation by firms in the production of particular products, such as manufacturing of cars by BMW, Nissan and Toyota in the UK. Each manufacturer employs the division of labour. So some workers design cars, some test them, others market them and the assembly itself is divided into many different tasks. Evaluate the extent to which specialisation and the division of labour might help in addressing the basic economic problem. Level 5 (21–25 marks) Good – Strong knowledge and understanding of specialisation and the division of labour and how it is relevant to the basic economic problem. Strong analysis of how specialisation and the division of labour might help in addressing the basic economic problem will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation as to the extent to which specialisation and the division of labour might help in addressing the basic economic problem, weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding specialisation and the division of labour and how it is relevant to the basic	25 (AO1 x 6) (AO2 x 6) (AO3 x 6) (AO4 x 7)	The basic economic problem is one of scarcity where the unlimited wants of society cannot be matched by the finite resources in existence. Specialisation is when an individual or country concentrates on a product or task. Division of labour is a type of specialisation where the production of a good is broken up into separate tasks each performed by one person or a small group of people. The benefits from both specialisation and division of labour may be shown using a PPF diagram where an individual or country can increase its efficiency and achieve a point above its current productive potential. Specialisation may help in addressing the basic economic problem in the following ways: • Higher output: A higher output at lower unit costs means more wants and needs might be satisfied with a given amount of scarce resources • Variety: Consumers have improved access to a greater variety of higher quality products, i.e. they have more and better choice both from their own economy and from the production of other countries • A bigger market: Specialisation and international trade increase the size of the market offering opportunities for economies of scale • Competition and lower prices: Increased competition for domestic producers acts as an incentive to minimise costs and innovate to remain competitive. Competition helps to keep prices down Division of labour may help in addressing the basic economic problem in the following ways: • Division of labour can help to raise output per person, thereby reducing

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	economic problem. Strong analysis of how specialisation and the division of labour might help in addressing the basic economic problem will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation as to the extent to which specialisation and the division of labour might help in addressing the basic economic problem will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding specialisation and the division of labour and how it is relevant to the basic economic problem. Good analysis of how specialisation and the division of labour might help in addressing the basic economic problem. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation as to the extent to which specialisation and the division of labour might help in addressing the basic economic problem, considering both sides/comparing alternatives. <i>There is a line of reasoning presented with some structure. The information presented</i>		costs per unit because lower skilled workers are easily trained and quickly become capable through constant repetition of a task – “practice makes perfect” – or “learning by doing”. Low unit costs allow firms to remain competitive in the markets in which they operate. Division of labour may not help in addressing the basic economic problem in the following ways: • There are limits to the breaking down of production into many small tasks. Perhaps the greatest is that the division of labour may eventually reduce efficiency and increase unit costs, because repetitive work lowers worker motivation and productivity. Workers begin to take less pride in their work and quality suffers. Some of these laborious tasks have been automated and, with the advent of robotics, this negative aspect may be less significant nowadays. • The division of labour also runs the risk that if one machine breaks down (or an individual is absent) then the entire production process stops. Some workers receive narrow training and may not be able to find alternative jobs if they find themselves out of work (they may suffer structural unemployment). Another disadvantage is that mass-produced standardised goods tend to lack variety. The extent to which specialisation and the division of labour might help in addressing the basic economic problem depends on a number of factors: • It may be argued that there is a trade-off. Specialisation may have created many standardised jobs and products such as Starbucks, McDonalds and even Apple as examples of what makes specialisation ‘bad’.

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Question	Answer/Indicative content	Marks	Guidance
	<i>is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding specialisation and the division of labour and how it is relevant to the basic economic problem. Reasonable analysis of how specialisation and the division of labour might help in addressing the basic economic problem. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation as to the extent to which specialisation and the division of labour might help in addressing the basic economic problem, considering both sides/comparing alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding specialisation and the division of labour and how it is relevant to the basic economic problem. Limited or no analysis of how specialisation and the division of labour might help in addressing the basic economic problem. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation as to the extent to which specialisation and the division of labour		• Nevertheless, it may be argued that society's adoption of specialised production and the trading of the consequent surplus has been a significant breakthrough when it comes to answering the question, "How to produce?" • Consequently, it has helped immeasurably in addressing the basic economic problem. 0 marks No response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level. Examiner's Comments Knowledge and understanding of specialisation, the division of labour and the basic economic problem were all good. As with Question 2, the ability to link these separate parts of the specification to show the likely impact on the basic economic problem was a key discriminator in assessing candidate's responses. Better responses explained how the division of labour should result in higher output at lower unit costs, how specialisation should result in a greater variety and quality of products produced in markets and increase the size of the market through international trade and drive down prices to consumers. Linked to the how these things help address the basic economic problem enabled more able candidates to show strong analysis. Typically, evaluation focused on the limits to and disadvantages to the division of labour. There were some excellent comments on how greater specialisation and the division of labour could be seen as making the basic economic problem worse as it increased pressure on scarce resources by encouraging greater production and consumption. Although not required by this Section C question, the inclusion of PPF and other diagrams did enhance the quality of analysis and evaluation offered by

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Question			Answer/Indicative content	Marks	Guidance										
			might help in addressing the basic economic problem in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr><tr><td>On the borderline of this level and the one below</td><td>At bottom of level</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)	On the borderline of this level and the one below	At bottom of level		higher ability candidates. Exemplar 7 <i>In Consumer Production and the division of labour too many workers the cost of a firm this can be passed onto customers through lower prices or even lower the firm through economies of scale. This will all contribute to the reduction of the economic problem as there will be more choices offered. This may be hard to achieve if workers had more of their jobs but they can be achieved through things like higher wages. This shows that the basic economic problem can be reduced through the division of labour and specialisation.</i> To show strong evaluation, candidates are expected to offer a judgement on the question asked. Exemplar 7 is an example of a response in which the candidate summarises the advantages and disadvantages of specialisation and the division of labour, but then suggests one of the disadvantages might be reduced. Development of this idea, rather than repetition of previous arguments, would have produced a more developed judgement.
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Consistently meets the criteria for this level	At top of level														
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)														
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)														
On the borderline of this level and the one below	At bottom of level														
			Total	25											

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
9			D	1 (AO2)	Rationale A If individuals derive more satisfaction from leisure activities than owning a home it would not be allocatively inefficient to choose to spend their money on this. B This is connected with individuals behaving differently when they are insured. C Individuals not being able to afford to own a home does not make them relatively poor, as most individuals in their 20s do not own property. D Correct: individuals have insufficient income to meet all of their wants so choose to sacrifice spending on a house to enjoy leisure activities.
			Total	1	
10			D	1 (AO1)	Rationale A Capital earns interest, not labour. B Entrepreneurs earn a profit rather than wages. C Land earns rent rather than a wage. D Correct: workers supply their labour in order to earn a wage.
			Total	1	
11			B	1 (AO1)	Rationale A The government makes these decisions in a command economy. B Correct: the government controls production and the allocation of resources. C Market forces are overruled by the government in a command economy. D Resources are allocated by the government in a command economy.
			Total	1	

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Question			Answer/Indicative content	Marks	Guidance
12			B	1 (AO1)	Rationale A Which macroeconomic objective is most 'important' is a subjective judgement. B Correct: this is an objective statement which can be tested as there is data to test the correlation between the minimum wage and unemployment. C 'Unfairness' is a value judgement which cannot be tested. D The word 'should' is subjective and cannot be proven.
			Total	1	
13			A	1 (AO3)	Rationale A Correct: more consumer goods now have to be sacrificed for each additional capital good produced because production in consumer goods has become more efficient. B The opportunity cost of producing consumer goods has fallen. C The PPF shows production possibilities – no levels of output are indicated here. D The PPF shows production possibilities – no levels of output are indicated here.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
14			A	1 (AO1)	Rationale A Correct: There is under-consumption so too few scarce resources are being allocated to this product. B The externalities model does not demonstrate the extent to which firms are appropriately considering long run concerns. C Just because it would be optimal for production to increase in terms of maximizing consumer welfare, this does not necessarily mean firms are producing at a point above average costs presently. D The diagram does not show us the costs of an individual firm.
			Total	1	
15			D	1 (AO2)	Rationale A If individuals derive more satisfaction from leisure activities than owning a home it would not be allocatively inefficient to choose to spend their money on this. B This is connected with individuals behaving differently when they are insured. C Individuals not being able to afford to own a home does not make them relatively poor, as most individuals in their 20s do not own property. D Correct: individuals have insufficient income to meet all of their wants so choose to sacrifice spending on a house to enjoy leisure activities.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
16			D	1 (AO1)	Rationale A Capital earns interest, not labour. B Entrepreneurs earn a profit rather than wages. C Land earns rent rather than a wage. D Correct: workers supply their labour in order to earn a wage.
			Total	1	
17			A	1 (AO1)	Rationale A Correct: productive efficiency occurs when a firm produces at the minimum efficient scale and it's at the bottom of the long run average cost curve. B It should be average costs rather than marginal costs. C This describes pareto efficiency rather than productive efficiency. D This is the level of output at which a firm profit maximised.
			Total	1	
18			C	1 (AO1)	Rationale A May face an economy at any particular time, but will not necessarily be a problem. B May face an economy at any particular time, but will not necessarily be a problem. C Correct: it is a problem that any economy will face at all times. D May face an economy at any particular time, but will not necessarily be a problem.
			Total	1	

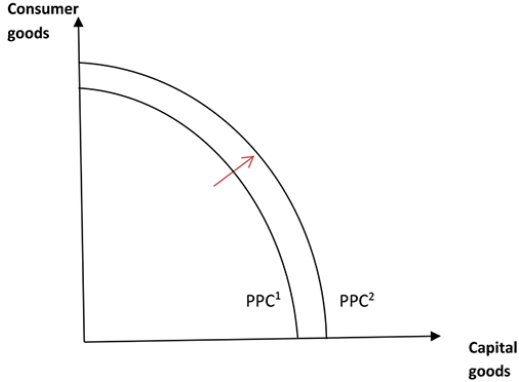
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
19			B	1 (AO2)	Rationale A Statement 2 is a positive statement B Correct: Statement 1 is a normative statement because a value judgement has been made that GDP per capita is the measure of economic development – this is subjective as other economists may conclude Norway is more economically developed than Qatar because they weight GDP per capita as being less important than, for example, healthcare and education. Statement 2 is a positive statement as it is possible to objectively compare the unemployment rate in Qatar with the unemployment rate in Norway and therefore test whether the statement is factually correct. C Statement 1 is a normative statement and statement 2 is a positive statement D Statement 1 is a normative statement
			Total	1	
20			A	1 (AO1)	Rationale A Correct: interest is the reward for capital B Profit is the reward for enterprise C Rent is the reward for land D Wages are the reward for labour
			Total	1	
21			D	1 (AO1)	Rationale A Interest is the return paid to capital. B Profit is the return to enterprise. C Rent is the return to land. D Correct: Wages is the return to labour.
			Total	1	

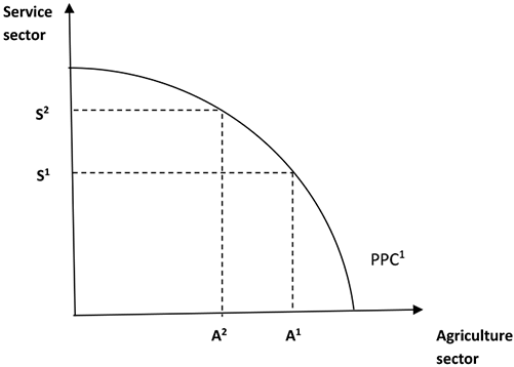
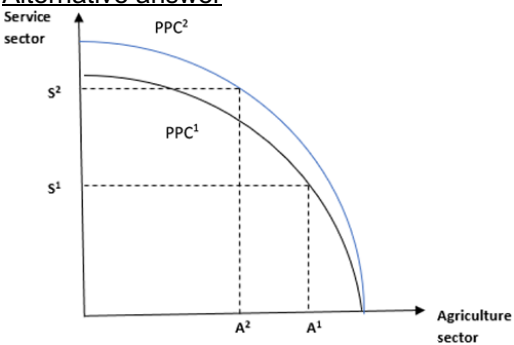
Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
22			D	1 (AO3)	Rationale A An outward shift in the production possibility curve enables more production to take place. B The production of hair straighteners can increase because the shift will have been caused by an increase in the efficiency in the production of hair straighteners – a technology biased shift. C This would only be true if the economy was exclusively producing apples. At point X an increase in the efficiency of the production of hair straighteners will enable more apples to be produced because resources can be reallocated from the production of hair straighteners. D Correct: Hair straighteners can be produced using less resources, meaning the production of hair straighteners can be increased whilst resources can be reallocated to the production of apples to enable the production of apples to also increase.
			Total	1	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
23	a	i	Draw a PPC diagram to explain the following statements: (i) with dependable electricity, GDP growth across sub-Saharan Africa could be up to 2% higher per annum than current rates (lines 8-9); 	2 (AO1*1 AO2*1)	Annotate with  Up to 2 marks for a diagram which shows: • an accurate and fully labelled PPC diagram (1) • an outward shift of the PPC (1)

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Question	Answer/Indicative content	Marks	Guidance
	ii Draw a PPC diagram to explain the following statements: (ii) Uganda has seen a fall in the agriculture sector's contribution to GDP at the same time as growth in the service sector's contribution (lines 16-18).  <u>Alternative answer</u> 	2 (AO1*1 AO2*1)	Annotate with  Up to 2 marks for a diagram which shows: - a PPC diagram which shows a movement along the PPC (or pivot/movement in favour of the service sector) (1) - labelling of higher output of agricultural sector <u>and</u> lower output of service sector (1) NB: The data from lines 16-18 may be used to show application for the second mark <i>To prevent candidates being penalised twice, marks can be awarded where the PPC is not fully labelled?</i>

Mark Scheme

Question		Answer/Indicative content	Marks	Guidance
	b	The concept of rationality helps economists to understand the behaviour of economic agents. Evaluate, using evidence from the stimulus material, how rationality may help is to understand the behaviour of firms. Level 3 (9–12 marks) Good knowledge and understanding of the role of rationality and/or different economic agents, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding. Good – Strong analysis of how rationality may help to explain the behavior of different economic agents. • Good analysis will be in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. • Strong analysis will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good – Strong evaluation of the role of rationality and whether it helps to explain the behaviour of economic agents, weighing up points of view/comparing alternatives. • Strong evaluation should include a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i>	8 (AO1 x 1 AO2 x 1 AO3 x 3 AO4 x 3)	For a mark at the top of each level evidence must be provided from the stimulus material. Most economic theory assumes that economic agents behave rationally. They will balance the marginal benefit against the marginal cost when each decision is made. For example, firms seek to profit maximise. Evidence in the stimulus material may be used to argue for or against rationality being of use include: • Samuel Mukisa is spending his own money to help his students to study. How does he benefit from this cost? • Large multinational organisations, such as Shell and Engie, may be more likely to operate rationally and make decisions based on profit-maximising behaviour. • Local start-ups and smaller firms, such as BBOX, are less likely to be profit-maximising in the short-run, but see the long-term potential of any decision made now to invest in this industry. • Fenix is clearly growing and so may be operating rationally. On the other hand, the Chief Executive is quoted as saying that she wants to have a positive impact. In fact, she suggests that it is possible to be both successful commercially and have a positive impact. Is this suggesting a satisficing approach to objectives? Candidates may consider the role of different non-maximising objectives in their answer. Better answers may consider the assumption of rational behaviour. Does a firm always aim to maximise profits (e.g. this may be unlikely for the Ugandan start-up firms, charitable concerns and 'socially minded investors')? Do consumers take decisions that are always in their best interests?

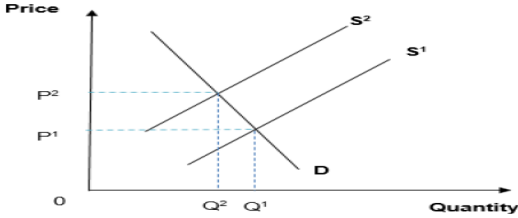
Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	Level 2 (5–8 marks) Good knowledge and understanding of the role of rationality and/or different economic agents, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding. Reasonable analysis of how rationality may help to explain the behaviour of economic agent(s). There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis Reasonable evaluation of the role of rationality in understanding the behaviour of economic agents. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 1 (1–4 marks) Limited – Reasonable knowledge and understanding of the role of rationality and/or economic agents, supported by the evidence in the stimulus material and / or the candidate's own knowledge and understanding. Limited analysis of how rationality may help to explain the behaviour of economic agents. Little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. Limited evaluation of the role of rationality in understanding the behaviour of economic agents in the form of an unsupported statement or no evaluation. <i>The information is basic and communicated in an unstructured way. The information is supported by limited</i>		<u>Examiner's Comments</u> This Section of the paper provides an opportunity for candidates to display knowledge and understanding of economic terms, concepts and theories and to apply these to the context provided by the stimulus material. Higher ability responses were able to select from the stimulus material the information required to perform calculation and to use PPC and market demand and supply diagrams to interpret the information provided in an analytical fashion. Lower ability responses took a more general and descriptive approach to the questions. This was most evident in responses to the question about the impact of an increase in the supply of reliable energy. Analytical responses to this question used market demand and supply analysis to construct the best responses to the question.

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			<i>evidence and the relationship to the evidence may not be clear.</i> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level. <table><tr><th>Descriptor</th><th>Award mark</th></tr><tr><td>Consistently meets the criteria for this level</td><td>At top of level</td></tr><tr><td>Meets the criteria but with some slight inconsistency</td><td>Above middle and either below top of level or at middle of level (depending on number of marks available)</td></tr><tr><td>Just enough achievement on balance for this level</td><td>Above bottom and either below middle or at middle of level (depending on number of marks available)</td></tr><tr><td>On the borderline of this level and the one below</td><td>At bottom of level</td></tr></table>	Descriptor	Award mark	Consistently meets the criteria for this level	At top of level	Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)	Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)	On the borderline of this level and the one below	At bottom of level		
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On the borderline of this level and the one below	At bottom of level														
			Total	16											

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
24	According to scientists, there are at least half a million pieces of space rubbish in the earth's atmosphere. Delhi, India's capital city, sees 80 deaths a day due to air pollution. Evaluate how the problem of scarcity can be used to explain the requirement to make choices between free goods and economic goods. Level 5 (21–25 marks) Good – Strong knowledge and understanding of the economic problem of scarcity, choice, free and economic goods in context. Strong analysis of how the problem of scarcity can be used to make choices between free goods and economic goods. It will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of how the economic problem of scarcity may help to make choices between free and economic goods, weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of the economic problem of scarcity, choice, free and economic goods in context.	25 (AO1 × 6 AO2 × 6 AO3 × 6 AO4 × 7)	For a mark at the top of each level the response should be in context. Economic goods are those which are scarce and have an attached value to them. We find a way to use that good in an optimum way. Thus, we find complements and substitutes for these goods. They have an opportunity cost. Free (non-economic) goods are those which, when used, do not have a monetary value. For example, we breathe in air, but we do not have to pay for it. It is unlimited in supply and therefore has no opportunity cost. Free goods have no complements or substitutes. Scarcity is one of the fundamental issues in economics. The issue of scarcity means we have to make a choice about how and what to produce from limited resources. It means there is an opportunity cost involved in making economic decisions. The problem of scarcity implies that there is no need to make a choice between free goods and economic goods because there is no opportunity involved in the consumption of free goods. The problem of scarcity results in a price / value being placed on economic goods. The price discourages demand and encourages firms to develop an alternative. This can be shown by a simple supply & demand diagram which shows that as a good becomes scarce its supply falls and so price rises to ration the good. 

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
	Strong analysis of how the problem of scarcity can be used to make choices between free goods and economic goods. It will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of the economic problem of scarcity using real world examples. Good analysis of how the problem of scarcity can be used to make choices between free goods and economic goods. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of how the economic problem of scarcity can be used, considering both sides/comparing alternatives. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of the economic problem of scarcity using real		However, choosing to prioritise the production and consumption of economic goods might (and increasingly does) degrade / exhaust the supply of free goods. Clean air was not a scarce good thousands of years ago when the human population was a fraction of what it is today. In many large cities (Delhi, Beijing, New York, etc.) today, clean air is a scarce good. That is because the atmosphere is used as a sink for dumping pollutants. The atmosphere has a limited capacity to absorb pollutants and that limit has been crossed in many regions of the world. If clean air becomes a scarce good, you have to pay for it. Meaning, you have to spend resources for clean air. This is done through installing mechanisms which reduce the amount of pollution dumped into the atmosphere. That is the cost for having clean air. Sand lying near the river is a free good but when it is collected in a truck and carried to a building site for house construction, it becomes an economic good. It is now scarce in relation to its demand and fetches a price. Judgements might include: • Economics assumes that when making decisions, people take the course of action which maximises their own utility. However, if many people seek to do this, the net effect may be to deplete a resource making everyone worse off in the long run. Therefore, the problem of scarcity explains why there is a requirement to make choices which consider both economic and free goods. • Both free goods and economic goods in reality have utility for economic agents. • The discussion also depends on how narrowly you define a good or service. Hence, 'air' may be a free good but 'clean air' is, for many people, an economic good nowadays.

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			world examples. Reasonable analysis of the problem of scarcity. There is correct analysis largely in the form of single links. These address the question but are not developed into a clear chain of reasoning. Any relevant diagram(s) may be imperfectly labelled or not linked to the analysis. Reasonable evaluation of how the economic problem of scarcity can be used, considering both sides/comparing alternatives. <i>The information has some relevance, but is communicated in an unstructured way. The information is supported by limited evidence, the relationship to the evidence may not be clear.</i> Level 1 (1–5 marks) Reasonable knowledge and understanding of the economic problem or scarcity using real world examples. Limited or no analysis of the problem of scarcity. There is little evidence of reasoning that addresses the question asked. There is a lack of a clear structure. The relevant diagram(s) may not be present or are incorrectly labelled. Limited evaluation of the economic problem of scarcity in the form of an unsupported statement or no evaluation. <i>Information presented is basic and may be ambiguous or unstructured. The information is supported by limited evidence.</i> 0 marks no response or no response worthy of credit. Note: although a diagram is not required, it may enhance the quality of the answer and should be rewarded at the appropriate level.		

Mark Scheme

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

Mark Scheme

Question	Answer/Indicative content	Marks	Guidance
25	China is the world's second largest economy, has the fastest growing consumer market and is the second largest importer of goods – all from an economy a centrally planned economy. However, more than 50% of China's surface water is not fit for human consumption. Evaluate whether economic incentives are required to achieve an efficient allocation of resources. Level 5 (21–25 marks) Good – Strong knowledge and understanding of the role of economic incentives in achieving efficient allocation of resources. Strong analysis of the role of economic incentives in achieving efficient allocation of resources. It will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Strong evaluation of whether economic incentives are necessary to achieve efficient allocation of resources, weighing up both sides/comparing alternatives and reaching a supported judgment. <i>There is a well-developed and sustained line of reasoning which is coherent and logically structured. The information presented is entirely relevant and substantiated.</i> Level 4 (16–20 marks) Good knowledge and understanding of the role of economic incentives in achieving efficient allocation of resources.	25 (AO1 × 6 AO2 × 6 AO3 × 6 AO4 × 7)	For a mark at the top of each level the response should be in context. An efficient allocation of resources occurs when $P=MC$ and there are no costs or benefits occurring outside the market (an absence of external costs and benefits), missing markets, information gaps or information asymmetries. Economic incentives are what motivates economic agents to behave in a certain way. Consumers are motivated by their net benefit, producers are motivated by profit and workers are motivated by financial reward. A fundamental principle of economic analysis is that 'people respond to incentives'. In market-based economies, prices send signals which act as incentives to buyers and sellers, changing their behaviour – that is, the amount of a good or service they are willing to purchase or to offer for sale. So, when coffee prices rise rapidly, many consumers choose to drink less coffee by substituting some other drink or by simply not drinking as much. Low prices encourage buyers to purchase more. This is because the amount of utility gained per pound spent increases relative to other goods. Higher prices discourage spending. On the supply side, higher prices encourage suppliers to sell more to the market. Low prices discourage production. A prolonged fall in price will drive some firms (the less efficient ones) out of the market, as it is no longer profitable for them to supply. The price, therefore, acts as a signal, as well as rationing output. Market-based economies utilise the power of profit as an incentive. Profit motivates entrepreneurs to accept the risk of acquiring and organising resources to seek market opportunities. The entrepreneur takes whatever profit or loss results from an enterprise. The entrepreneur's desire to avoid loss and make profit provides an

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Question	Answer/Indicative content	Marks	Guidance
	Strong analysis of the role of economic incentives in achieving efficient allocation of resources. It will have consistently well-developed links through a coherent chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct with no significant errors that affect the validity of the analysis. Any diagrams must be integral to the analysis. Good evaluation will weigh up both sides/comparing alternatives but without reaching a supported judgment. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and in the most part substantiated.</i> Level 3 (11–15 marks) Good knowledge and understanding of the role of economic incentives in achieving efficient allocation of resources. Good analysis of the role of economic incentives in achieving efficient allocation of resources. There is correct analysis in the form of developed links. These links are developed through a chain of reasoning which addresses the question. Any relevant diagram(s) are predominantly correct and linked to the analysis. Reasonable evaluation of the role of economic incentives in achieving efficiency. <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i> Level 2 (6–10 marks) Good knowledge and understanding of the role of economic incentives in achieving efficient allocation of resources.		incentive to innovate, in order to reduce the cost of providing goods and services, and to improve product quality. An economy which did not make use of incentive – a centrally planned economy – is unlikely to achieve an efficient allocation of resources because of: • a lack of choice – planning tends to the production of uniform products. In the Soviet Union, everything from cars to food was mass-produced in large quantities, but with little variety. However, compare this with the images of designer labels and top international brands now found in China. • poor quality & innovation – the lack of the profit motive led to very poor levels of quality in the Soviet Union and China (which still persist in some industries to this day). Products and technology were many years behind the rest of the developed world. This is no longer the case in modern-day China where many of the highest spec products, ranging from iPhones to laptops, are produced. • inefficiency – the traditional planned economies were highly inefficient. Workers and managers had no incentive to work efficiently as jobs were guaranteed. But again, modern-day China is becoming highly efficient and is now able to undercut many market-based economies in terms of cost. However, there are reasons to suggest that an efficient allocation of resources can be achieved without market incentives for consumers, producers and workers. So long as the governments is motivated by economic welfare it can direct the allocation of resources through a system of central planning. This would involved the creation of state owned enterprises, the development of annual, five or ten year plans and the determination of price and output in each industry by central planners.

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Consistently meets the criteria for this level	At top of level														
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On the borderline of this level and the one below	At bottom of level														
			Total	25											