Comments on specific questions

Question 3 was answered correctly by 35% who chose option C. 39% chose option A, 18% chose option B and 8% chose option D. According to economic theory, successive increases in the production of one good will lead to an increasing sacrifice (increasing opportunity cost) in terms of the reduction in the other good. In this instance, as the economy tries to increase successive units of the production of consumer goods it must sacrifice an increasing amount of the other capital good for each extra unit.

Question 10 was answered correctly by 30% who chose option B. 27% chose option A, 27% chose option C and 16% chose option D. An increase in wage rates is likely to increase the price of the product. If there is an increase in available substitutes (B) consumers will switch to the substitute to avoid the price increase and production in the original firm will decline causing unemployment.

Question 12 was answered correctly by 32% who chose option B. 11% chose option A, 35% chose option C and 22% chose option D. There is not a large number of small companies supplying petrol (C) but there are many places where foreign currency can be obtained.

Question 18 was answered correctly by 9% who chose option C. 26% chose option A, and 49% chose option B and 16% chose option C. The original price was \$20 and the output was 20. To cause the supply curve to shift to S_2 , at an output of 20, price would change to \$12; a subsidy of \$8. The final price will not be \$12 because as the price falls, demand will rise. The subsidy is not the difference between \$12 and the final price (A), nor the difference between the original price and the final price (B), nor the final price (D).

Question 29 was answered correctly by 38% who chose option B. 19% chose option A, 33% chose option C and 10% chose option D. A decrease in direct taxation (A) and a decrease in tariffs (C) might lead to a rise in demand for imports as consumers have more money to spend or because imports are cheaper. An increase in government expenditure (D) might also increase imports either because they are bought by the government or because the government gives more money in the form of transfer payments to consumers.

Paper 0455/12 Multiple Choice

Question Number	Key	Question Number	Key
1	С	16	С
2	D	17	С
3	С	18	В
4	D	19	Α
5	Α	20	В
6	D	21	Α
7	В	22	D
8	В	23	С
9	D	24	Α
10	В	25	В
11	В	26	С
12	В	27	D
13	С	28	В
14	D	29	D
15	В	30	С

General comments

2754 candidates took this 30 question multiple-choice examination and the mean score was 20.2 which was higher than the mean score of 19.7 in 2017.

The questions for which most candidates selected the correct answer were 1, 2, 9, 11, 15, 20, 22, 23 and 26. These questions were answered correctly by 80% or more of the candidates. They covered different parts of the syllabus and were set to test different skills.

The questions for which the fewest candidates selected the correct answer were **5**, **21** and **29**. These questions were answered correctly by 50% or fewer candidates. The rest of the questions gave results which were well within the levels expected.

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Comments on specific questions

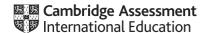
Question 5 was answered correctly by 42% of the candidates who chose option **A**. 22% chose option **B**, 18% chose option **C** and 18% chose option **D**. A successful advertising campaign by a rival firm would cause the demand curve to shift to the left. A rise in wages would then cause the supply curve to move to S_2 giving a new equilibrium of **A**.

Question 21 was answered correctly by 31% of the candidates who chose option **A**. 27% chose option **B**, 19% chose option **C** and 23% chose option **D**. Those who are owed money would be at a disadvantage with a high rate of inflation because when they eventually received their money it would be worth less. Similarly, exporters would find that their products would cost more in foreign countries and they would not be able to sell as many.

Question 29 was answered correctly by 47% of the candidates who chose option **D**. 10% chose option **A**, 9% chose option **B** and 34% chose option **C**. The main choice for candidates was between options C and D that give the same movement of prices for imports. However, if the currency has devalued then the price of exports will appear cheaper in foreign countries and the quantity of exports is likely to increase.

Question 21 was answered correctly by 31% of the candidates who chose option A. 27% chose option B, 19% chose option C and 22% chose option D. Those who are owed money would be at a disadvantage with a high rate of inflation because when they eventually received their money it would be worth less. Similarly, exporters would find that their products would cost more in foreign countries and they would not be able to sell as many.

Question 29 was answered correctly by 47% of the candidates who chose option D. 10% chose option A, 8% chose option B and 34% chose option C. The main choice for candidates was between options C and D that give the same movement of prices for imports. However, if the currency has devalued then the price of exports will appear cheaper in foreign countries and the quantity of exports is likely to increase.



Paper 0455/13 Multiple Choice

Question Number	Key	Question Number	Key
1	D	16	С
2	D	17	С
3	В	18	В
4	Α	19	Α
5	С	20	В
6	С	21	Α
7	В	22	D
8	В	23	С
9	В	24	D
10	Α	25	В
11	С	26	С
12	Α	27	С
13	Α	28	В
14	D	29	В
15	D	30	С

General comments

1822 candidates took this 30 question multiple-choice examination and the mean score was 22.6 which is very close to the mean score last year of 22.7.

The questions for which most candidates selected the correct answer were 1, 3, 4, 5, 6, 9, 14, 15, 16, 18, 22, 23, 24, 26 and 27. These questions were answered correctly by 80% or more of the candidates. They covered different parts of the syllabus and were set to test different skills.

The questions for which the fewest candidates selected the correct answer were **Questions 13** and **20**.

Comments on specific questions

Question 13 was answered correctly by 48% of the candidates who chose option A. 5% chose option B, 31% chose option C and 16% chose option D. The take-over was in the same field of production and was of a company designing parts for the production. It is, therefore, away from the consumer so is a vertical integration backwards.

Question 20 was answered correctly by 46% of the candidates who chose option B. 39% chose option A, 9% chose option C and 6% chose option D. The most popular incorrect option was A but, while the economic growth rate might fall, there could still be positive economic growth over a period. For example, growth could be 2% in year one and 1% in year two, but that would not mean a recession.

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Paper 0455/21 Structured Questions

Key messages

- When candidates attempt more than three questions in Section B, it is important to clearly cross out those attempts which are not to be marked.
- When candidates answer part of a question on a different page to the rest of that question, or add further information later on, it is very helpful to clearly indicate this on their response.
- In **Section B**, part **(c)** questions require candidates to Analyse a situation. In many cases, however, the analysis does not require a balanced approach, unlike the part **(d)** discussion questions. Some responses, however, included disadvantages which were irrelevant to this question.
- It is important that candidates carefully read and understand what the question requires as an answer.
- Throughout the paper, candidates are asked to limit their answers to Explain a specific number of reasons/ways/methods. This is so that candidates do not write too much. There may be many more reasons that a candidate could give but only the number required will be rewarded.
- It is also important to note that the command Explain requires more than identification, there needs to be some development following the identification.

General Comments

Taking time to read the question carefully, and to consider an appropriate response, is a very important part of this examination. Those candidates who look closely at the precise wording of the question are much more likely to be successful than those who rush into their answers. This is particularly important in **Question 1** where several parts require information from the extract to be applied, and where including information from outside of the extract is inappropriate and irrelevant in a response.

Similarly, precision in the use of economic terms is also very important in order to produce valid answers. For example, in **Question 3(c)** it is much better to refer to quantity demanded increasing by a smaller proportion rather than by 'only a little amount', whilst in **Question 2(a)** and **Question 2(d)** it is important to use the terms 'exports' and 'imports' to give precision to answers, rather than the vague terms 'local firms' or 'foreign output'.

Conclusions and introductions can be useful in answers to questions but they must add value to the answer. Introductions can be useful if they include definitions of economic terms but should not simply state the candidate's intentions or repeat the wording of the question. Conclusions should not just be summaries that repeat points made earlier, they should be evaluative judgments of previous analysis.

Comments on specific questions

Section A

Question 1

- (a) Most answers to this question were correct, with candidates using the data in the extract to calculate the percentage change. It is useful to show working because it is possible that some credit might be given for correct working even if a mistake is made in the final figure.
- (b) Those candidates who used the correct economic concepts tended to do well on this question. They did this by identifying supply as a reason, with Saudi Arabia's increased production as the example, going on to identify demand as a factor with an example from the extract.

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- (c) It was a straightforward task to identify 'increased interest rates' and 'selling foreign reserves' from the extract, and most candidates were able to do so.
- (d) Two reasons for Russia's declining population were required and good answers demonstrated an appreciation of the need to develop the answer beyond identifying the two reasons. High death rates could be explained by poor health, and high emigration explained by poverty in Russia. A number of candidates inappropriately included a third reason which wasted time.
- (e) Identifying increased costs of production with an example, such as higher transport costs, was usually straightforward for candidates, but developing this point further and linking it to inflation often proved more difficult. Good answers identified the price inelasticity of demand as a key factor, explaining that consumers are likely to continue buying oil despite the increase in price. Finally, explaining that this was cost-push inflation, rather than just inflation in general was an important part of a good answer.
- There are many possible reasons why increasing taxes on oil producers could be harmful and most candidates were able to identify three of them, such as increased cost of production, reduced profits and becoming less competitive. Many candidates however did not 'look at both sides' as indicated by the command word 'discuss'. For a complete answer, candidates needed to consider reasons why the tax might not have been harmful such as the price inelasticity of demand for oil enabling producers to pass on the tax to consumers.
- (g) Answers to this question usually showed a good understanding of the nature of both monetary policy and fiscal policy in terms of interest rates and taxation respectively. There were however a considerable number of answers which were too vague, for example 'monetary policy involves money' and 'fiscal policy uses taxes but monetary policy does not'.
- (h) As with Question 1(f), good answers to this question looked at both sides, as indicated by the command word 'discuss'. Unfortunately, a considerable number of candidates only looked at reasons for concern about the Russian economy without considering the positive aspects of the country's situation. It was relatively straightforward for candidates to identify up to four reasons for concern from the extract, such as increasing inflation, increasing unemployment, increasing poverty and falling export values. This answer could then be combined with the more positive signs for the Russian economy, such as improving domestic investment.

Section B

Question 2

- (a) The best answers to this question defined protectionism as trade restrictions and used the specific terms exports and imports. Weaker answers tended to ignore these terms and vaguely defined protectionism as protecting local industries or stopping foreign producers.
- (b) There were a large number of clear and concise answers to this question which identified and then explained two methods of protection. Those answers which were not fully developed tended to ignore the precise names of these methods: namely tariffs rather than just 'taxes on imports' or embargoes rather than just 'a ban on imports'.
- (c) The importance of clear labelling was very evident in answers to this question. It is necessary to label both axes clearly and to indicate the new supply curve with either letters or by the use of arrows. Good answers combined accurate labelling with clear analysis of how falling steel prices reduced production costs and therefore prices for car manufacturers. Candidates who clearly understood the demand and supply process were often careless in their labelling of the diagram.
- (d) Answers to this question were greatly improved by the use of the precise terms 'exports' and 'imports'. The best answers explained that protectionism may increase import prices, reducing demand for imports and increasing the demand for domestic products. They then gave the other side of the 'argument' explaining that other countries may retaliate against imports by increasing the price of the first country's exports and reducing their demand. Candidates who did not use these precise economic terms in their answers often found it difficult to construct coherent answers.

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Question 3

- (a) Good answers to this question emphasised the willingness and ability to provide products. Without the use of these two terms, it was extremely difficult for candidates to produce an answer which defined supply satisfactorily.
- (b) The concept of market failure was clearly understood by only a small number of candidates. The key to a good answer was to start with a clear explanation of market failure in terms of inefficient resource allocation and then to explain the external costs involved in the salmon market, such as unsustainability of stocks and water pollution. Many candidates however confused market failure with government failure (poor regulations), with business failure (salmon producers going bankrupt), or with market forces working (price falling to remove a surplus), and thus had great difficulty in producing an appropriate answer.
- (c) It was rare to see good answers to this question but one reasonable example was ... for an elastic good or service, the price goes down as revenue goes up. This is because an elastic demand is when a change in price is less relative to a change in demand. So if a company producing an elastic good lowers the price, the quantity demanded will increase more significantly, causing the revenue to increase'. This is not a perfect answer, but it does clearly explain the relationship between PED and revenue and the candidate uses economic terms rather than vague phrases.
- (d) The key to a good answer to this question was to explain that subsidies reduce costs of production, and so producers are potentially able to increase their profits as a result. Another good approach was to consider how subsidies can encourage firms to increase investment which gives them greater productive potential and the possibility of greater profits. It is however very important to read questions such as this very carefully because the focus of the question was benefits to producers rather than consumers. Having established the benefits of subsidies to producers, this 'discuss' question required the candidate to look at why these benefits might not be achieved, for instance, because they did not offset higher costs which the firm might face as a result of its increased output.

Question 4

- (a) Most candidates were able to give an appropriate definition of absolute poverty, usually involving a person or household's inability to meet their basic needs. Good answers on relative poverty were much rarer however, where the candidate needed to refer to a person's poverty compared to that of others in society.
- (b) Identification of two characteristics of a developed country was fairly straightforward from the range of possible options e.g. high income per head, high life expectancy, good education, large tertiary sector, but many candidates did not take this any further to Explain these points. High life expectancy could be explained by good healthcare or high incomes per head explained by high levels of output. It is important to note however, that high GDP is not necessarily a feature of a developed country: Luxembourg is a highly developed country but has a small GDP because of its very small population.
- (c) As with the previous question, candidates usually had little difficulty in identifying two policy measures to alleviate poverty. In this question however, it was necessary to develop the point identified further by Analysing the policies in some detail. For example, increased education provision could be identified, followed by analysis of the improved job prospects available and the higher incomes this would provide, thus reducing poverty.
- (d) A strong answer discussed in some detail both the positive and negative effects of privatisation: 'Moving firms from the public sector to the private sector might result in a market system where resources are allocated efficiently. As the market will become demand based it will satisfy consumers more as they determine prices, type of goods and quantity of goods that will be produced ... competition between firms is a benefit for consumers as prices will decrease in order to attract demand between competing firms. It will also lead to an increase in quality. However moving firms from the public to the private sector will most likely increase the production of harmful goods, bringing many social costs that could lower living standards. Another disadvantage it will bring is that many positive impact goods will not be produced as they are not profitable, for example street lighting.' Whilst this answer is not perfect (external costs would be better than social costs for example), it does demonstrate competent discussion of both sides of the argument.

There are many other aspects which could have been covered, such as the profit motive of private firms but this answer clearly covers key points required.

Question 5

- (a) There was some confusion about the exact nature of public limited companies in answers to this question, but there were also answers which demonstrated a good understanding. The most important aspect of a plc is that its shares are traded on a stock exchange. Those answers which simply stated that it was a company whose 'shares could be bought and sold' were therefore incorrect, because this is also the case for private limited companies. Some answers confused plc's with government owned firms, probably because they contain the word 'public' in their name.
- (b) Good answers had some explanation of both productivity and production, whereas weaker answers only identified these concepts. It was encouraging to see many answers considered productivity as a measure of efficiency and demonstrated an understanding of the link between inputs and outputs. In addition to total output, it was also important to indicate some notion of time in an explanation of production, such as an hour or even a year.
- Having explained the concept of productivity in the previous question, candidates could then use this idea to explain how increased productivity could lead to lower average production costs. In this case it is important to include the word 'average' because total costs will rise as output increases. Most candidates however could not take this idea further and link it to inflation, and some were very confused about demand-pull inflation, suggesting that lower prices would lead to higher demand which reduced inflation. Good answers on the other hand, focused on cost-push inflation by discussing reduced wage costs and increased investment further reducing cost-push inflation.
- (d) The key to a good answer to this question was to understand the importance of economies of scale in a merger. Having grasped this idea, candidates were then able to explain falling average costs and give two examples of economies of scale, such as managerial and technical economies. It was possible to address this question by examining horizontal or vertical mergers, but long descriptions of these types of mergers was not a satisfactory approach. Having established the advantages of economies of scale, it was a straightforward task to discuss the disadvantages of mergers in terms of diseconomies of scale, increasing average costs, with two examples such as communication problems and lack of flexibility.

Question 6

- (a) Most candidates could identify at least one reason for working in the state sector, such as better working conditions or job satisfaction. It is important however to be precise in such questions, and 'non-wage benefits' is too vague, whilst 'the state pays welfare benefits' confuses in-work benefits with those paid to the unemployed.
- (b) There were many good answers to this question, explaining as well as identifying, reasons why a government may want to cut education spending. In particular, the identification of opportunity cost as a reason was a productive way of using economic theory, explaining the alternative foregone as spending on other areas such as defence. Whilst 'growth of private education' was potentially a valid approach, it was necessary to explain this in more detail, such as a corresponding fall in the numbers in public education so that less spending would be needed.
- (c) The best answers to this question examined the skills with which education can provide workers, leading to better job opportunities. Many candidates however stopped at this point and missed the opportunity to take the idea further by explaining that this would lead to higher incomes, thus reducing poverty and/or improving their standard of living. Other good answers focused on the importance of education in tertiary-based economies, where output tends to be greater.
- (d) The key to a strong answer was a discussion of skills and the way in which workers can benefit by focusing on an activity at which they are best. This will improve a firm's productivity but it was important for candidates not to stray from the benefits to workers. One candidate's discussion of the downside was straightforward and comprehensive: 'If the particular skill they are specialising in is very manual, it may be very boring to have to do the same every day which will lead to a lack of motivation. Another disadvantage it will bring is that workers will only become good at one particular skill and will probably have trouble looking for another job'.

Question 7

- (a) Many answers to this question were surprisingly vague. It is not sufficient to say that unemployment is when someone does not have a job children and pensioners do not have jobs but they are not unemployed. Good answers emphasised both the willingness and ability of an unemployed person to find a job.
- (b) Good answers to this question focused on differences in demand and supply factors as reasons for wage differences. Once this basic economic idea had been established, candidates could then explain that demand for labour is derived from the demand for goods and services, and that supply would be affected by the size of the working population. It was rare to see this approach however, and answers were often characterised by vague assertions about whether or not a country was developed or differences in tax rates between countries.
- (c) Linking recession in one country with unemployment in another proved difficult for many candidates and is an example of when use of the terms 'imports' or 'exports' make it less complicated. An example of a reasonable response is: 'If a product is imported the country that produces it will have less demand for it. As a result there is no need to produce as many goods as before. The firm may choose to let go many of their employees because they are no longer necessary and it will reduce costs'.
- (d) The best answers to this question were those which followed a logical series of steps, starting with identification of the increased labour force which would result from immigration. Weaker answers made assertions without first explaining the reasoning. For example, candidates stated that immigration would increase productivity and growth without first explaining that immigrants would increase the size of the working population and/or bring new skills. Similarly, they assumed that immigrants would automatically cause unemployment without explaining that this would mean taking jobs where locals could be employed. This fails to recognise that immigration raises both the supply of and demand for labour.

It was noticeable that many candidates gave very short answers to this question suggesting they may have run out of time so emphasising the need to plan time spent on answers in relation to the command word and marks available.

Paper 0455/22 Structured Questions

Key messages

- When candidates attempt more than three questions in Section B, it is important to clearly cross out those attempts which are not to be marked.
- When candidates answer part of a question on a different page to the rest of that question, or add further information later on, it is very helpful to clearly indicate this on their response.
- Candidates should read carefully the command word in the question. For example, if the command word is 'explain' then the response requires more than a simple identification of a point or issue. It is necessary to give some more detail or development. **Question 1(b)** asking for two reasons why the price of rubber fell is a good example. Here a strong response would identify a reason, e.g. 'imposition of import controls' and then go on to explain why this would lead to a fall in prices, e.g. 'this would lead to a fall in the demand for rubber and so producers were encouraged to reduce price to win back/attract customers'.
- In questions requiring analysis of data, it is important for candidates to look not only for evidence that might support a particular trend, but also at possible exceptions. For example in **1(d)** although most of the evidence supports the view that higher healthcare expenditure per head leads to lower infant mortality, Cuba is an exception.
- It is important for candidates to address the context of a particular question. **Question 1(f)** is a good example. Here it is important that the concept of opportunity cost is applied to the circumstances of rubber farmers in Liberia. Other examples of opportunity cost, even if correct, are irrelevant to the question.
- Parts (e) and (g) of compulsory Question 1 and parts (d) of the optional questions, require discussion of a particular issue and a one-sided argument, however well-developed, is insufficient. It is important that candidates address both sides of the argument in the question. Making individual links in a logical chain of argument is important. For example in 3(d) many candidates identified that raising the school leaving age might lead to individuals earning higher incomes. However, the strongest responses explained why this might be the case, e.g. 'raising the school leaving age might lead to individuals obtaining more skills or qualifications which would enable them to obtain higher paying jobs'.
- Candidates should stay focused on the actual question set rather than moving off the point or
 attempting to change the nature of the question. For example in Question 6(d) many candidates
 correctly identified that advances in technology might lead to some workers becoming unemployed, but
 then instead of explaining why this might be the case, they went on to discuss the consequences of
 rising unemployment for the individuals concerned and the economy as a whole which was not relevant
 to this question.

General comments

There were some excellent responses which demonstrated very good analytical skills together with an ability to apply knowledge and understanding of Economics to a range of real world issues.

The concepts of price elasticity of demand and price elasticity of supply are fundamental to the study of Economics and it is important that candidates have a clear understanding of these concepts and their application. In addition to understanding the nature of price elasticity of demand and supply, the method of calculation and the factors affecting these elasticities, it is important that candidates can explain the importance of different elasticities and changes in these elasticities for firms' pricing and output decisions. It is also important for candidates to be clear on the distinction between factors that influence the demand and supply of products and the factors that affect the price elasticity of demand and supply of these products.

If candidates answer part of a question on a different page to the rest of the question, or add further information later on, it is helpful to indicate this on the script.

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Comments on specific questions

Section A

Question 1

Generally candidates performed well on this question making effective use of the extract and application of relevant economics. A number, however, found part (e) challenging.

- There were many excellent responses to this question with most candidates correctly identifying two goals of business organisations, usually survival and profit maximisation. Candidates must realise that only goals mentioned in the extract are relevant so, in this instance, 'making profits' was too vague as the extract clearly refers to 'profit maximisation'.
- (b) Here many candidates identified two reasons from the extract usually 'supply exceeding demand' and 'the imposition of import restrictions' and many stronger responses went on to explain how these reasons would bring about a fall in the price of rubber.
- (c) Candidates generally performed well on this question with many excellent responses explaining how increased wages could cause demand-pull inflation by increasing spending/consumption and total demand and cost-push inflation via an increase in firms' costs of production.
- (d) Again candidates performed well on this question. Most successfully identified the link between the two variables, provided relevant supporting evidence, usually from the UK and Liberia and recognised that Cuba was an exception.
- (e) This question demonstrated the importance of addressing the focus of a question which in this case was whether an increase in the number of workers in the tertiary sector would benefit the Liberian economy. There were some strong answers which clearly focused on the tertiary sector discussing benefits such as higher wages, improved living standards and indication of a developed economy, and drawbacks such as Liberia's resources being more suited to producing rubber and that it might have to now import primary and manufactured products. However, a significant number of responses were too generic, discussing the benefits or otherwise of an increase in employment in general.
- (f) The vast majority of candidates correctly defined opportunity cost and many went on to give examples clearly linked to Liberian rubber farmers, e.g. the US MNC could use its resources to produce rubber or make furniture or produce coffee/cocoa. A significant number of candidates gave correct examples of opportunity cost, but because they were not linked to rubber farmers they were irrelevant to this question.
- (g) This question also had many strong responses. Most candidates looked at both sides of the argument and produced a balanced response. The most common arguments developed were the desire to find jobs and earn an income, as factors which might encourage emigration and problems of finance, family ties and the provision of unemployment benefits in the home country were factors which might discourage emigration

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Section B

Question 2

- (a) Most candidates provided an accurate definition.
- (b) Most candidates identified two ways in which a government might reduce external costs, usually tax and regulation, and the strongest responses went on to explain the mechanism by which each method might lead to the reduction of external costs. For example, 'a tax on a product would raise its price and discourage consumption'.
- (c) Although most candidates identified the fact that inflation would mean that money would lose its value, the majority of candidates found this question extremely challenging. Some candidates were able to identify the functions of money, but only a few demonstrated a clear understanding of how inflation might impact on the ability of money to act as a medium of exchange, unit of account, store of value and standard for deferred payments.
- (d) The strongest responses provided balanced answers with good analysis of how a fall in the exchange rate might benefit an economy in terms of reductions in export prices and increased import prices leading to an increase in net exports, resulting in an improvement in the balance of payments along with increased employment and economic growth. Possible drawbacks, in terms of the impact of the increase in the price of imports on firms' costs and the loss of variety of products for consumers were also discussed. However, a number of candidates thought incorrectly that a fall in the exchange rate would increase export prices and reduce import prices.

Question 3

- (a) The vast majority of candidates were able to correctly identify two types of tax.
- (b) There were some strong answers which provided thorough explanations of how a government would benefit as a result of a rise in individuals' income/spending, leading to more tax revenue and that government spending on unemployment benefits would fall enabling the government to spend on other areas. Many candidates, however, simply stated that GDP would rise, without explanation, or discussed the impact of falling unemployment on individuals rather than the government.
- There was mixed performance on this question. There were some very good responses which provided an accurate diagram clearly identifying that the economy would be operating at a point inside its PPC, along with sound written analysis. A number of candidates, however, incorrectly shifted the whole PPC inwards. It is important that candidates ensure that they have a clear understanding of the factors that might mean an economy is operating inside its PPC and the factors that would result in a shift of the whole curve. Some candidates labelled the axes of a PPC diagram incorrectly.
- (d) There were some well thought out responses to this question with good analysis, particularly of why a government should raise the school leaving age. These responses provided logical arguments with clear links in the chain of reasoning explaining the benefits for individuals, in terms of increased skills and qualifications enabling them to obtain higher paying jobs, and for the economy in terms of increased productivity and economic growth. Such responses also addressed possible drawbacks in terms of reduced labour force in the short run and an increased dependency ratio. Weaker responses tended to be one-sided or exhibited some confusion, e.g. a number of candidates thought incorrectly that raising the school leaving age would immediately reduce the level of unemployment in the country.

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Question 4

- (a) Most candidates understood the nature of earnings.
- (b) Most candidates were able to identify two non-wage factors, but only a few went on to explain how these factors might influence an individual's choice of occupation.
- (c) Most candidates performed well on this question providing a range of relevant factors, most commonly skill levels, qualifications, high and inelastic demand and low and inelastic supply. The stronger responses also clearly analysed why these factors would mean that economics graduates are well paid.
- (d) Responses to this question were very mixed. There were a few strong responses which clearly focused on whether or not people in high-income countries would save more than people in low-income countries, and provided a range of well explained and developed reasons e.g. differences in income, range of financial institutions, culture in relation to saving and provision (or lack of) welfare systems. The majority of candidates, however, found this question very challenging. Many responses were generic, looking at factors that would influence the overall level of saving in general, rather than focusing on whether or not people in more developed countries might save more or less than people in less developed countries. There was also a tendency for candidates to produce mirror image arguments. Each identification point should only be made once, on either side of an argument, although it is possible to develop distinctive/separate explanation/analysis as to how or why the outcome may differ. This principle applies to all 'discuss' questions.

Question 5

- (a) Most candidates clearly understood that the public sector was the part of the economy where the government was in control and makes the decisions, but not all candidates were clear on the private sector.
- (b) Many candidates found this question challenging and there were few strong responses. A few identified a decline in the quantity or quality of training and impact of repetitive and boring work on workers motivation, but did not always go on to explain why these factors might lead to a fall in productivity. A number of candidates confused falling productivity with falling output or demand.
- (c) Over the whole paper this was the question which candidates found most challenging. A few stronger responses successfully explained how firms might benefit from an increase in the price elasticity of demand for its products, as by reducing the price there would be a more than proportionate increase in the demand which would lead to an increase in the firm's revenue, but few candidates were able to explain the benefits of an increase in the price elasticity of supply, e.g. in enabling firms to respond quickly and effectively to changes in demand or price. The majority of candidates simply explained what was meant by the price elasticity of demand and supply and the factors that affected them which was not the question. A number of candidates also confused the factors which might affect the price elasticity of demand and supply with those which caused shifts of demand and supply curves.
- There were few really strong responses for this question. Candidates often referred to reasons why small firms might survive (personal service, greater flexibility, niche markets) and why they might not survive (inability to take advantage of economies of scale, less capital available, might be driven out of business by large firms), but these points tended to be presented as simple statements with little development. Many candidates also made unsubstantiated statements, e.g. 'small firms provide higher quality goods' or 'have lower prices' with no real attempt to explain why this might be the case.

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Question 6

- (a) The majority of candidates were able to give a full and accurate definition of GDP.
- (b) Candidates performed well providing two well explained reasons, usually higher wages compensating for the inconvenience of unsocial hours, the fact that night work might fit in with family circumstances during the day or that the individual might lack the skills to obtain other work and, therefore, had no other choice.
- (c) Most candidates identified that workers would earn an income which could be sent home to support the living standards of their dependents and that they might return home with new, improved skills learned abroad. Stronger responses then developed these points in detail explaining their likely impact on the balance of payments, as well as on the productivity of workers, firms' costs and the economy's GDP. A number of candidates discussed the drawbacks to an economy of having some of its population working abroad, which irrelevant to this question. It is important that candidates are aware that when a question requires analysis of either the benefits or drawbacks of a particular set of circumstances, only those asked for should be addressed.
- (d) This question produced many excellent and well balanced answers which addressed both sides of the question with a range of points developed. Such responses demonstrated good analytical skills backed up with sound and relevant economics. The benefits of advances in technology tended to be more fully developed, usually in terms of improvements in productivity, lower costs of production, improved quality of production, increased GDP and improved international competitiveness and the consequent benefits for the balance of payments. Disadvantages were also addressed, usually in terms of the replacement of certain types of labour by capital and the resulting impact on unemployment. There were some interesting discussions of the impact on firms and individuals of advances in technology in relation to improvements in communication and the development and expansion of the internet. Weaker responses tended to make simple statements of possible benefits or drawbacks or lost focus on the question.

Question 7

- (a) Almost all candidates answered this question well.
- (b) Most candidates were able to identify two reasons, usually to raise revenue, discourage the purchase of foreign gold or protect domestic production. Stronger responses went on to provide a full explanation in terms of the impact on the balance of payments and domestic employment.
- (c) This question produced many excellent responses. Candidates really needed to provide three differences between perfect competition and monopoly and many compared the number of sellers, the existence (or not) of barriers to entry into the industry and whether or not firms were price takers or price makers. In the stronger responses comparisons were explicit using words/phrases such as 'however', 'on the other hand', and 'as opposed to'. Less strong responses had some understanding of the nature of perfect competition and monopoly, but tended simply to list a few, often unrelated, features of each with no explicit attempt at comparison.
- (d) There were many excellent answers to this question which developed a comprehensive range of issues on both sides of the argument. These analysed clearly how an economy might benefit from mining and selling all its gold, discussing the impact on employment, economic growth, living standards and the balance of payments; then going on to explore the drawbacks in relation to the impact on future generations, e.g. possible increases in the price of gold in the future and the external costs associated with extensive mining operations. In such responses the arguments were well thought out with good links in the chain of reasoning backed up by sound economic analysis. Weaker responses tended to provide limited explanation of the issues raised or were one-sided, concentrating exclusively on the benefits of a nation mining and selling all its gold with no attempt to address both sides of the argument i.e. the drawbacks.

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Paper 0455/23 Structured Questions

Key messages

- When candidates attempt more than three questions in Section B, it is important to clearly cross out those attempts which are not to be marked.
- When candidates answer part of a question on a different page to the rest of that question, or add further information later on, it is very helpful to clearly indicate this on their response.
- In **Section B**, part **(c)** questions require candidates to Analyse a situation. In many cases, however, the analysis does not require a balanced approach, unlike the part **(d)** discussion questions. For example **Question 3(c)** was to Analyse the advantages of an increase in a country's labour force. Some responses, however, included disadvantages which were irrelevant to this question.
- It is important that candidates carefully read and understand what the question requires as an answer.
- Throughout the paper, candidates are asked to limit their answers to Explain a specific number of reasons/ways/methods. This is so that candidates do not write too much. There may be many more reasons that a candidate could give but only the number required will be rewarded.
- It is also important to note that the command Explain requires more than identification, there needs to be some development as explained in **Question 1(f)** below.

General comments

Candidates are expected to use information from the extract in constructing their answers to **Question 1**. Generally, responses showed that candidates had carefully used information from the extract rather than from their studies.

It is important that candidates read through all six optional questions before choosing which three to answer. Some candidates changed their selected questions or were unable to complete all four parts of one question. Given that parts (c) and (d) account for 70% of the question, candidates should be sure they can provide a full response to these parts before selecting that question.

Comments on specific questions

Section A

Question 1

- (a) Most candidates correctly identified from the extract the two methods of tariffs and limiting the amount of foreign currency that Nigerians could purchase. Quite a few stated tariffs and quotas. Whilst quotas are a form of protection they were not mentioned in the extract, so could not be accepted as a correct answer.
- (b) Depreciation in an exchange rate is caused by market forces. It can be caused by a fall in demand for and/or an increase in supply of a currency. Many candidates did not mention this, instead, they commented on the factors that affected demand and supply such as higher inflation, a fall in demand for exports or an increase in imports, without mentioning how this affected demand and supply and why this caused the currency to depreciate. A typical weak response was "A current account deficit would cause a depreciation of the currency". This is weak because it does not explain what a deficit was or why it would lead to depreciation. A better response was "A decrease in demand for a country's exports results in lower demand for that country's currency leading to a lower value of the currency and thus depreciation".

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- To do well on this question, candidates needed to analyse the data and find the trends that fitted (c) (or not) the question being asked. The question required candidates to identify the countries with a current account deficit and determine whether their inflation rate was higher and their growth rate was lower, than countries with current account surpluses. Many candidates identified Columbia, Nigeria and Turkey as the three countries with a deficit and most of the responses also correctly stated that they had a higher rate of inflation than both China and Germany. However, very few candidates stated that Germany had a lower growth rate. Weak responses only looked at individual countries and commented on whether their inflation rate was higher than their growth rate and did not answer the question as they made no comparison between countries. A typical good answer was "Countries with current account deficits such as Columbia, Nigeria and Turkey had higher inflation rates than China and Germany which had current account surpluses. However, Germany had a lower growth rate and therefore it is not true that countries with current account deficits have higher inflation rates and lower economic growth rates than those with current account surpluses." A few candidates did not refer at all to the data, but explained why countries might have high inflation rates and/or low growth rates; this was not the guestion asked.
- (d) This question required an identification of a reason for poverty in Nigeria drawn from the extract and an explanation of why this resulted in poverty. There were several reasons mentioned in the extract and the most common identified was higher inflation and a reduction in spending on education and healthcare. A typical good response was "Nigeria had cut expenditure on education and healthcare which would mean more people uneducated and without treatment for illnesses which would decrease their employment opportunities, lowering their wages and therefore causing poverty".
- (e) Candidates often distinguished between the short run and long run. Many commented that in the short run, a cut in expenditure on education would cut government expenditure and with tax revenue unchanged this would reduce the gap. Some responses added that the government might spend the money elsewhere and overall expenditure might not reduce. Generally, candidates were better at explaining that in the long-run the gap might get bigger. A typical good response was "A cut in spending on education would mean fewer skilled workers leading to lower incomes and tax revenue would fall resulting in a larger gap".
- The external costs mentioned in the extract were water pollution and air pollution. While many candidates identified these two external costs, they often did not explain why they were external costs. A typical answer showing an understanding of external costs was "Oil production will create toxic gases and air pollution which will cause breathing problems for people living nearby". On the other hand, quite a few candidates inappropriately mentioned costs in the extract that were not external costs such as the high wages paid to some workers in the oil industry and the high interest payments made to local banks.
- This question was generally well answered. A typical opening comment was that an increase in wages of low-paid workers would mean higher disposable income so they could afford more basic necessities therefore reducing poverty. Another common response was that an increase in wages would motivate low-paid workers to work harder and produce more, making them more productive. Strong responses also made the point that if output did not go up then firms faced higher costs and may make low-paid workers redundant, causing greater poverty. Some continued to state that if inflation was higher than the increase in wages, the low-paid would still be in poverty. A few also stated that those who were unemployed would not benefit from an increase in wages.

Section B

Question 2

- (a) There was a surprisingly high number of incorrect or incomplete answers to this question. A typical correct answer was "The total amount received from selling a good or service". Others put it more simply as "Total revenue = price X quantity". Some were clearly confused about revenue, costs and profits.
- (b) Some responses showed that candidates were unclear that profits were what was left after costs were deducted from revenue. A typical weak answer lacking development was "A firm might still earn a profit if there was also a reduction in costs of production". Strong responses explained that even if revenue fell, if it was still higher than costs, a profit would still be made and explained that

profit was the difference between revenue and costs. A few also added that firms would seek to reduce costs e.g. by cutting labour costs if revenue fell, in order to maintain profits.

- (c) Generally, this was well answered. Most responses showed a clear understanding that an indirect tax was levied on goods and services. Most candidates correctly explained that this would lead to higher prices and a reduction in demand resulting in firms reducing supply and cutting costs by making staff redundant. Some strong answers discussed the extent to which prices might rise depended on the price elasticity of the good and if it was inelastic this might not have much impact on sales and therefore loss of jobs. A reasonable, but not complete, response showing some understanding was "An indirect tax increase prices of goods and services. This reduces consumers' purchasing power and because demand falls, firms' profits fall. Hence employees may lose their jobs, resulting in unemployment."
- There were some very good responses to this question. Many explained that low employment meant a strong economy, with workers able to afford to buy MNC's products, increasing their sales and profits. Workers were likely to be skilled and productive, with lower costs of training. However, answers also explained that with low unemployment there were few unemployed workers, and this made it expensive for MNCs to recruit if competing against other firms. This resulted in higher costs of production, making them less competitive. A few very good responses added that for this reason MNCs might prefer to set up in countries where there was high unemployment and labour was cheap. A few weak responses tended to be answers about why MNCs set up in a country and what were the advantages and disadvantages for the country e.g. a response for a different question.

Question 3

- (a) A typical good response identifying two reasons was "The pay for a dentist is high as the cost of dental treatment is high and the working conditions are also good." Weak responses tended to identify one reason e.g. high pay or only mentioned about the high charges for dental work without stating why this would mean that someone would train to be a dentist. A few incorrect responses just quoted from the stem of the question that as the cost of filling a tooth was \$180 in the US, dentists would make a lot of money.
- (b) Some candidates confused price elasticity of supply with price elasticity of demand. A typical response was that "There were more substitutes for manufactured goods and therefore demand is more elastic than for agricultural goods." Good responses identified and explained that it was usually quicker to increase the supply of manufactured goods than agricultural goods making them more elastic in supply. The other common response made was that it was easier to store manufactured goods which had a longer shelf life than agricultural goods such as fresh vegetables.
- An increase in a country's labour force means an increase in potential capacity rather than a definite increase in output as workers may not be employed. Nearly all candidates assumed that there were more workers and wrote about output rising leading to higher income and GDP. They often then explained that this increased tax revenues and enabled the government to spend more e.g. on education, health and infrastructure. Some also stated that this could lead to demand-pull inflation; but this is not an advantage to an economy. Generally, candidates were able to explain the main advantages of an increase in the labour force of a country. A typical mid-range response was "An increase in the labour force means more people are willing and able to work. This could increase production and output in the economy and mean more tax revenue for the government which could be spent on improving education and healthcare".
- (d) Most candidates were able to discuss why the government should and should not provide free dental treatment. A common opening comment was "A government should provide free dental treatment as this ensures that all citizens, especially the poor, have access to the treatment". Candidates then often referred to a healthier and more productive workforce leading to increased output and higher living standards. Reasons why it should not provide free dental treatment rightly concentrated upon the opportunity cost e.g. "money spent on free dental treatment could have been used elsewhere" or that this could mean higher taxes to pay for it. Some also made the point that the rich could afford to pay privately for such treatment and therefore less money was available for the government to spend supporting low-income families. Some candidates expressed an incorrect view that free dental treatment meant that dentists would not be paid so would be unable to make a living, or that making treatment free may significantly increase demands on the service and could mean that people took less care of their teeth since they knew that treatment was free.

Question 4

- (a) There were very few correct definitions of the death rate. A typical response was "the number of deaths per 1,000 people" with no reference to a time period. Alternatively, it was simply stated as the number of deaths per year with no reference to "per 1,000 of the country's population".
- (b) A common weakness of many responses given was to identify measures that were too general in their effect and not specifically targeted at families such as "a reduction in income tax would give families more money" but that would apply to all couples whether or not they had children. A more appropriate measure would have been an increase in tax allowances or tax benefits for parents. Common strong responses included free state education and/or healthcare which reduced the costs of raising children and maternity/paternity leave, making it easier for people to have time off work when their child is born. Incorrect answers included reducing the supply of / increasing the price of contraceptives and improving sex education.
- There were many weak responses to this question. The main reason for this was that whilst candidates understood what the main characteristics of a declining population were e.g. a reduced labour force and lower output, they did not then analyse the impact this might have on the environment. Where candidates successfully attempted to show the impact on the environment, comments included "a declining population means less consumption of goods and services and lower consumption of non-renewable resources" and "there would be fewer cars, less congestion and less air pollution". A few also mentioned that that there would be less labour available to improve the environment and address pollution.
- A significant proportion of candidates discussed the advantages and disadvantages of economies of scale without considering that the firm produced a wide range of products. This meant that many responses contained examples of economies of scale that would not apply. One good response which recognised the nature of the firm was "the firm can take the advantages of commercial economies of scale if the range of products it produces require the same basic raw materials e.g. water, oil and electricity so that they can buy them in bulk at a cheaper price." Technical economies of scale were often given as an example, but different products would most likely require different types of capital equipment. However, most candidates were able to identify financial economies of scale as being applicable to such a large firm as well as relevant diseconomies of scale such as poor communication between workers and management if the firm had become too big. Strong responses stated that the latter was more likely where a firm had become large through conglomerate mergers.

Question 5

- (a) There were some clear answers explaining the difference between the price and the cost of a product. A typical response was "The price is the amount that the customer has to pay for the product whereas the cost is the amount the producer has to pay to make the product."
- (b) Most responses identified an increase in population size and an increase in either prices or income as the chief influences on the general level of demand for food. For example, one candidate gave as one reason "higher disposable income means that consumers can afford to purchase more goods and services and their demand for food would increase." Some candidates chose to explain influences on particular foods e.g. health awareness affecting consumption of particular goods with high sugar content. This was acceptable. Some candidates confused supply with demand so inappropriately wrote about the loss of crops through drought resulting in an increase in demand for food.
- (c) Nearly all responses showed that candidates clearly understood what was meant by being a net exporter and net importer. Strong responses analysed how negative changes in home demand, cost and availability of resources coupled with imports becoming cheaper could lead to a country becoming a net importer of a product. A typical weak response was "firms could make more profit by importing a product to sell in the home market than exporting it to another country." Whilst this might be correct, there is no explanation about the change in market conditions that led to this happening.
- (d) Most answers to this question were weak because candidates did not make clear why a central bank should limit lending by commercial banks. Those that did, explained that a function of the central bank was to control bank lending and to make sure that it did not result in an increase in

total demand causing demand-pull inflation. Others wrote about the impact that higher lending by banks may have on raising imports and worsening the balance of payments. Others expressed the view that if lending rose too high it could result in borrowers failing to repay debts, putting banks at risk of collapsing. A typical response was "if a commercial bank were to lend out a lot to its customers, they may not receive all the funding back and it may need to seek help from the central bank to lend to them as a last resort to stop them from going bankrupt." The opposite argument, often put, was that restricting lending could result in reductions in bank profits and the inability of businesses to borrow funding in order to expand, potentially causing recession and the loss of jobs.

Question 6

- (a) A range of ways of conserving a country's resources were identified by candidates. A typical answer with two correct measures identified was "A government can place a limit on the amount of resources that can be used or impose a tax on the use of those resources, thereby reducing consumption". Other ways included banning exports, encouraging imports, educating consumers, recycling resources and subsidising firms that conserve natural resources.
- (b) The crucial point to be made in this question was that the benefit had to be an external one. Answers such as "Education can increase the wages of workers as they become more highly skilled and they can spend this money on their children" did not give an external benefit. Likewise, stating that "education enabled people to get higher paid jobs in the tertiary sector" is an example of an internal benefit. A typical correct response was "An external benefit from education is that they become more productive and efficient lowering the average cost of production of a firm enabling it to make larger profits or pass it on as lower prices for consumers." Other external benefits included better quality goods, more advanced technology, less need for firms to spend on training, and less pollution if people were educated on environmental issues.
- (c) There were many good responses to how a cut in the rate of interest could reduce poverty. An example of a common response was "a cut in the rate of interest makes borrowing cheaper and they can have more money and an increase in purchasing power. They can buy more goods and services reducing poverty. Firms will increase production and employ more people which reduces unemployment which reduces poverty." Other strong responses also mentioned that it was cheaper for firms to invest leading to higher output and employment. Weak answers tended to comment on how lower interest rates led to more borrowing but did not explain how this affected poverty.
- (d) Candidates were clear about what was economic growth and were usually able to discuss the impact on living standards. Strong responses discussed whether economic growth always led to an increase. In some cases, candidates discussed how it might but did not develop how it might not or simply stated it did increase living standards without discussing how. For example, one answer was "Economic growth leads to higher aggregate demand which leads to a higher GDP and a higher standard of living". A more developed answer on why it might not impact increased living standards would have stated that the economic growth may not have benefited everyone and may have been achieved through longer working hours, depletion of natural resources and higher levels of pollution. The fact that economic growth could cause inflation was also a common response.

Question 7

- (a) Most candidates correctly identified wages and profits as the rewards for labour and enterprise. Where they did not, it was usually because the reward for enterprise was incorrect e.g. stating that it was revenue or level of sales.
- (b) The effect of inflation on savers and borrowers was not understood by many candidates. The key to the answer depended on understanding the real value and the relationship between the rate of inflation and the rate of interest. Overall, this was not well done by most candidates. An answer that did show understanding was "It is beneficial to borrowers as they can to pay back less in real terms than they borrowed and savers lose out because the real value of their savings has fallen if interest rates are below the rate of inflation and they can buy less with their savings." A typical answer that did not understand the real value effect was "If the inflation is high, interest rates would rise and there would be a higher return for savers which would mean they would have more money to spend enabling them to buy more goods".

- There were many weak responses to this question that did not show an understanding of how governments respond to different levels of inflation. Some explained how it was measured e.g. "Inflation is measured through the CPI" but often explained the impact of inflation e.g. higher prices, reduction in living standards and, in some cases, explaining what caused it e.g. increase in total demand or higher costs of production. A good response would have said that if it was over estimated it could have led to an increase in taxes and interest rates that could have caused higher unemployment and reduced economic growth.
- (d) Most candidates correctly understood the term investment so were able to make some reasonable discussion of how an increase would affect a deficit on the current account of the balance of payments. However, there were some weak answers that interpreted investment as investing in stocks and shares or that the current account related to the balance of government taxation and spending. Strong answers stated that investment in labour could increase skills and productivity resulting in higher output and quality of goods produced. This could lead to exports becoming more competitive, increasing demand for exports and thereby reducing a deficit on the balance of payments. Candidates were generally weaker in explaining how investment might not reduce a deficit. The main reason identified was that increase output might mean importing more raw materials or that investment required imported capital goods. Some stronger responses mentioned that as investment increased total demand it could result in demand-pull inflation which would make imports cheaper and exports more expensive.