ECONOMICS

Paper 0455/11 Multiple Choice

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

Key messages

In order to score highly on this paper, the candidates require a broad understanding of the content of the topics in the syllabus. This is especially the case when an item requires the candidates to perform operations on graphical, numerical, and/or diagrammatic data, the specifics of which are unfamiliar to them. To select the correct response, candidates need to read each item carefully, taking note of any bold text before making their response.

General comments

The questions for which most candidates selected the correct answer were **Questions 1**, **9**, **10**, **26**, and **27**. These questions 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 7**, **11**, **12**, **19**, and **29**. These were answered correctly by fewer than 50 per cent of candidates.

Comments on specific questions

Question 7

Question 7 was answered correctly by 45 per cent of the candidates who chose option **C**. 19 per cent chose option **B**, 19 per cent chose option **D** and 16 per cent chose option **A**. The question related a price change to elasticity of demand and a firm's total revenue. Those selecting the correct option understood that a rising price with inelastic (price) demand would lead to an increase in the firm's total revenue (option **C**). Option **B**



would lead to no change in total revenue. Options **A** and **D** would lead to a fall in total revenue and the majority of candidates recognised this.

Question 11

Question 11 was answered correctly by 31 per cent of the candidates who chose option **D**. 32 per cent chose option **C**, 25 per cent chose option **B** and 11 per cent chose option **A**. The introduction of a minimum wage would cause the difference between the demand for and supply of labour equal to L1L2. Options **C** and **B** were strong distractors but incorrect because while they operated on the new supply or demand for labour, they incorrectly referenced the original equilibrium point. Option **A** was the least popular choice with most candidates understanding that the origin would not be relevant.

Question 12

Question 12 was answered correctly by 41 per cent of the candidates who chose option **D**. 55 per cent chose option **B**, 2 per cent chose option **A** and 2 per cent chose option **C**. The question presented four separate potential summary outcomes resulting from a firm changing its capital and labour inputs. The correct answer required the candidate to recognise that labour productivity had increased as the number of workers decreased. Most candidates confused the reduction in number of workers identified in the stem with a reduction in labour productivity, and so incorrectly selected option **B**. The vast majority of candidates understood that the firm's output had increased so successfully ruled out options **A** and **C**.

Question 19

Question 19 was answered correctly by 45 per cent of the candidates who chose option **A**. 28 per cent chose option **B**, 16 per cent chose option **D** and 10 per cent chose option **C**. The question concerned government intervention to achieve a policy objective and the beneficial effect on another objective. This item required candidates to select option **A** recognising the positive impact a decrease in the rate of interest could have on both economic growth and unemployment. The majority of incorrect answers chose option **B**, making an incorrect link between a decrease in the rate of interest and price stability.

Question 29

Question 29 was answered correctly by 38 per cent of the candidates who chose option **B**. 37 per cent chose option **A**, 13 per cent chose option **C** and 11 per cent chose option **D**. This item presented the candidate with a foreign exchange market diagram in initial equilibrium and a decrease in demand moving the market to a new equilibrium. Candidates were required to correctly select one of four different potential causes of the shift in demand. The candidates who answered correctly realised that the decrease in the US interest rate would lead to the reduction in demand for the US currency. A very similar number of candidates (37 per cent) incorrectly selected option **A** confusing the effect of a fall in the Chinese rate of interest. Most candidates were able to correctly reject options **C** and **D** as having no direct impact on a foreign exchange market.



ECONOMICS

Paper 0455/12 Multiple Choice

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

Key messages

In order to score highly on this paper, the candidates require a broad understanding of the content of the topics in the syllabus. This is especially the case when an item requires the candidates to perform operations on graphical, numerical, and/or diagrammatic data, the specifics of which are unfamiliar to them. To select the correct response, candidates need to read each item carefully, taking note of any bold text before making their response.

General comments

The questions for which most candidates selected the correct answer were 1, 4, 17, 24, and 26. These questions 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 **3**, **5**, **15**, **27**, and **29**. These were answered correctly by fewer than 50 per cent of candidates.

Comments on specific questions

Question 3

Question 3 was answered correctly by 14 per cent of the candidates who chose option **B**. 33 per cent chose option **A**, 33 per cent chose option **D** and 20 per cent chose option **C**. The question provides a PPC diagram with various combinations of consumer and capital goods identified. Those selecting the correct response recognised the future dimension of the question and the relevance of producing more capital goods now in



order to produce more consumer goods in the future. Many candidates missed this and selected combinations of outputs that reflected the most consumer goods produced in the current period.

Question 5

Question 5 was answered correctly by 46 per cent of the candidates who chose option **B**. 24 per cent chose option **D**, 18 per cent chose option **A** and 11 per cent chose option **C**. The question asks what is likely to cause an extension in demand. Many candidates recognised an increase in supply caused by a reduction in production costs was the correct answer in option **B**. The other 3 options would all have the effect of shifting the demand curve. Advertising by the firm proved the strongest issue among the various distractors.

Question 15

Question 15 was answered correctly by 38 per cent of the candidates who chose option **D**. 28 per cent chose option **A**, 21 per cent chose option **C** and 13 per cent chose option **B**. The question asked which function of money acts as a measure of value. 38 per cent knew this to be a 'unit of account'. There was reasonably widespread confusion among many candidates with the majority selecting one of the other 3 functions offered as distractors.

Question 27

Question 27 was answered correctly by 45 per cent of the candidates who chose option **B**. 36 per cent chose option **A**, 11 per cent chose option **D** and 9 per cent chose option **C**. The question asked for the effect of a tariff on the equilibrium point in a supply and demand diagram for an imported good. 45 per cent of candidates recognised the tariff as an indirect tax that would shift the supply curve to the left. The two most popular distractors showed candidates had incorrectly thought the increased tariff would cause the demand for the import to fall instead of supply.

Question 29

Question 29 was answered correctly by 43 per cent of the candidates who chose option **B**. 26 per cent chose option **D**, 22 per cent chose option **C** and 9 per cent chose option **A**. The question includes a table showing a depreciating exchange rate across 4 years. The question asks for the effect on the home economy of the depreciation. Many candidates understood that the outcome could be a decreased current account deficit. 26 per cent of candidates incorrectly thought the depreciation would cause an increased trade deficit reversing the accepted effect of the depreciation on imports and exports. A similar reversal of the effect of the depreciation led 22 per cent of candidates to think it would increase imports and 9 per cent thought it would increase cost-push inflation.



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Paper 0455/13 Multiple Choice

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

Key messages

In order to score highly on this paper, the candidates require a broad understanding of the content of the topics in the syllabus. This is especially the case when an item requires the candidates to perform operations on graphical, numerical, and/or diagrammatic data, the specifics of which are unfamiliar to them. To select the correct response, candidates need to read each item carefully, taking note of any bold text before making their response.

General comments

The questions for which most candidates selected the correct answer were 1, 9, 15, 18, and 24. These questions 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 **3**, **5**, **11**, **19**, and **27**. These were answered correctly by the fewer than 50 per cent of candidates.

Comments on specific questions

Question 3

Question 3 was answered correctly by 33 per cent of the candidates who chose option **C**. 43 per cent chose option **B**, 17 per cent chose option **A** and 6 per cent chose option **D**. The item provided financial data regarding the outcome of land usage and subsequent tax revenues. The question asked about the opportunity cost of one specific use. 33 per cent of candidates correctly identified the benefit foregone in



option **C** because of the usage. 43 per cent incorrectly selected option **B** that ignored the taxation aspect of the data. The other options, **A** and **D**, were less commonly selected and would have been derived from incorrect manipulation of the data provided.

Question 5

Question 5 was answered correctly by 46 per cent of the candidates who chose option **B**. 39 per cent chose option **A**, 11 per cent chose option **D** and 2 per cent chose option **C**. The question contained a labour market diagram with an initial equilibrium identified. The question asked, if the workers in the market became more productive how would the equilibrium change? Many candidates achieved the correct response by recognising the demand for the workers would increase shifting the demand curve for labour to the right. The strongest distractor was that which included the increase in demand for the labour but also a decrease in their supply.

Question 11

Question 11 was answered correctly by 34 per cent of the candidates who chose option **C**. 43 per cent chose option **D**, 16 per cent chose option **B** and 7 per cent chose option **A**. The question asked if firm changes from producing individual pieces of wooden furniture by hand to a mechanised production process using the division of labour, what would be the most likely set of outcomes as a result. The item provided a table with versions of 3 possible outcomes identified across 4 options. The correct option differed from the most popular distractor in its outcome relating to total cost. Those candidates incorrectly selecting option **D** did so in the belief that total cost as well as average total cost would decrease. Those candidates correctly selecting option **C** realised that whilst average total cost would fall, the mechanisation would lead to an increase in total cost.

Question 19

Question 19 was answered correctly by 38 per cent of the candidates who chose option **C**. 27 per cent chose option **B**, 27 per cent chose option **A** and 6 per cent chose option **D**. This question required candidates to select a correct statement regarding the effect of monetary policy on the economy. 38 per cent successfully recognised that an increase in the money supply in an economy without spare capacity will result in demand-pull inflation. 27 per cent incorrectly thought that a higher exchange rate will make imports more expensive and improve the balance of payments. While another 27 per cent also incorrectly thought that an increase in interest rates will encourage investment and lead to higher economic growth.

Question 27

Question 27 was answered correctly by 45 per cent of the candidates who chose option **D**. 41 per cent chose option **B**, 9 per cent chose option **C** and 6 per cent chose option **A**. This item provided 4 global statements as options and asked the question, which is most likely to promote international specialisation? 45 per cent of candidates recognised the link between the stated abolition of barriers to trade in option **D** and the impact that would have on encouraging counties to have the confidence to specialise. A large number, 41 per cent, incorrectly chose option **B** showing their confusion over the contextual impact of similarities in the availability of natural resources in different countries. Few candidates were distracted by the options involving weather conditions and exchange rates.



ECONOMICS

Paper 0455/21 Structured Questions

Key messages

There was a significant increase in the number of candidates who answered their chosen questions out of order. In several cases they attempted the questions in **Section B** in reverse order starting with **part (d)** first. Others partially completed a question and then came back to it at the end. Some put the wrong question number against their answer. Others crossed out their original answer and attempted it again at the end of the paper. It is understandable that sometimes candidates answer the questions that they feel they can answer well first and come back at the end to attempt an answer on which they were unsure. In a few cases they missed answering all the questions or provided an answer to the wrong question e.g. **Question 3(d)** rather than **Question 4(d)**. This can be rectified to some extent by candidates spending more time at the beginning of the exam deciding which questions they can best answer and answering them in the order on the exam paper.

General comments

In answering questions in **Section A**, candidates should use information from the extract material, then use their knowledge and understanding to develop their answer. In quite a few cases in this exam, candidates based their answer on information not included in the extract. For example, in **Question 1(b)** giving rent as the reward to land but rent was not included in the extract. Similarly with **Question 1(c)**, the extract material stated the two methods of measuring unemployment. All candidates had to do was select one of them and explain how the data was collected.

Most of the short answer questions are based on terminology used in the syllabus and commonly used in the learning materials approved by Cambridge. For example, **Question 2(a)** asks candidates to identify the influences on the mobility of labour. From the answers given, it seemed that quite a few did not understand what was meant by influences on the mobility of labour.

Comments on specific questions

Section A

- (a) Most candidates calculated the correct answer of 0.3 for the price elasticity of demand for coffee by dividing the 3 per cent change in quantity demanded by the 10 per cent change in price of coffee. A common error was to calculate the elasticity as 3.33 (e.g. dividing change in price by change in quantity). Other less common errors were to state 0.3 per cent, 7 per cent (10 per cent 3 per cent) and 30 per cent (through multiplying the correct answer by 100).
- (b) Most candidates identified the two rewards to factors of production of wages and profits named in the extract material. There were two common errors. Firstly, by naming the factor of production rather than the reward e.g. writing labour instead of wages. Secondly, by identifying a reward for a factor not mentioned in the extract e.g. rent.
- (c) Quite a few answered this question incorrectly. The question was about how unemployment is measured, not how it is calculated. Many answers therefore simply explained that it was measured by dividing the number of people willing and able to work by the size of the working population, often giving an example e.g. 3 per cent which is how it is calculated. The two methods of measuring unemployment were named in the extract material as claimant count and the labour



force survey. Candidates needed to name one of them and then give an explanation. Many were able to name one of the two methods, some named both, but then did not give an adequate explanation e.g. that the claimant count was based on workers claiming unemployment benefits.

- (d) The majority of candidates correctly stated the two functions of money mentioned in the extract, namely medium of exchange and store of value. Most were able to explain that money was used to buy and sell products. Fewer candidates were able to explain why money was a store of value e.g. you could save it, or it kept its value. Weaker responses stated a function not mentioned or stated a characteristic of money e.g. it was divisible. A few could not fully recall a function e.g. 'storage value for future use.'
- (e) This question was well answered by most candidates. They recognised that there was a clear inverse (or negative) relationship between the percentage of the labour force employed in agriculture and the GDP per head in that country. A few explained that the main cause was that agricultural workers usually had lower pay than in other sectors. Strong answers compared a country with high GDP per head such as the Bahamas with another country such as Nicaragua which had a low GDP per head. Most candidates also recognised the exception in this relationship shown by Dominica and Nicaragua. Weaker answers tended to describe the content of Table 1.1 without any analysis being given. Others described the relationship as indirect which was incorrect since there was a clear relationship shown.
- (f) Many candidates correctly drew and labelled a shift in the supply curve to the left. Errors seen included: not labelling the new supply curve; shifting the demand curve to the right; or wrongly labelling the demand and supply curves. Nearly all answers stated that price of coffee would rise although a few correctly stated that there would be a shortage of coffee.
- (g) The key point in this question was the relationship between small firms and their consumers. Strong answers provided a range of factors e.g. providing a personal service, being flexible and having a competitive market leading to lower prices and higher quality products. The reasons why it might not be beneficial were less well done. Many candidates made the point about small firms not benefitting from economies of scale and might only offer a limited choice. Weaker answers tended to discuss the impact of small firms on the economy or employment which was outside the scope of the question.
- (h) Most candidates gave good depth in their answers, especially on why Nicaragua should devote more resources to coffee. Common answers for doing so included the rise in global demand for coffee, gaining economies of scale, more job opportunities, resulting in a higher GDP, greater exports, and a better balance of payments. Weaker answers gave only a couple of the benefits. There were also some strong answers for why it might not benefit Nicaragua e.g. opportunity cost of alternative use of resources, being dependent on other countries for agricultural products if the country specialised in coffee and the risk of natural disasters and climatic change. Weaker answers here either reversed their argument for the benefits or wrote about the impact on small firms selling coffee.

Section B

- (a) Many candidates incorrectly gave occupational mobility and geographical mobility as their answer and not the factors that affected them. The most common correct answers were: family ties, transport available, age, skills, and level of education. Weaker answers usually mentioned factors not directly relevant to labour mobility. One answer stated, 'increase in economic growth and the importance of the job.'
- (b) Quite a few responses were awarded low or no marks for this answer. The question was about the benefits consumers got arising from there being more commercial banks. Many answers simply wrote about the benefits that a commercial bank has for a consumer e.g. place to keep savings safe and to borrow money. Strong answers wrote about the convenience of greater accessibility and greater competition resulting in a wider range of products, lower interest rates on loans and higher interest rates on savings.
- (c) This was well answered. Common reasons for lower pay than men included: lack of skills, training for the job, qualifications, and education. Other common themes were less experienced and



working part-time due to raising a family, both of which lowered opportunities for promotion. Discrimination against women in certain cultures was also commonly given. Few explained it within the context of demand and supply factors. Weaker answers concentrated upon men undertaking dangerous and dirty jobs or because women were less able to do very physical jobs e.g. comments on jobs that women were less suited to doing rather than why they were paid less than men. A typical example was 'men undertake jobs with higher risk and therefore get paid more'. The question was about why women in general received less pay than men and not about specific types of jobs.

(d) This question on why people in countries with a high GDP enjoyed higher living standards was well answered e.g. higher incomes resulting in better health, better living conditions and education, with the government able to provide more support and public services for those on lower incomes. Answers tended to be weaker on why it might not be so. Frequently, a reversal of the arguments given for the benefits was given. Strong answers explained that often income was unevenly distributed and that even in a country with high GDP there would be people living in poverty. High income might have been achieved with high external costs e.g. pollution. Others commented that a high GDP could just mean a high population and that GDP per head was more accurate in determining standard of living within a country. A few mentioned that some countries had a low GDP because there was a large informal economy that meant that income was under-recorded.

Question 3

- (a) This question was answered well with many responses stating the government and firms or producers. Alternatively, candidates wrote about the private and public sectors. A typical weaker answer stated 'private individuals and market forces of demand and supply' neither of which are creditable.
- (b) Nearly all candidates identified that an increase in population would result in higher demand and larger supply of labour. Strong answers explained the impact on firms e.g. higher demand led to more revenue and profits and larger supply of labour led to greater output or lower wages. Weaker answers wrote about an increase in consumers within the economy rather than how it affected firms or did not identify a specific benefit arising from there being a larger number of potential employees.
- (c) This was a difficult question for many candidates to answer. The main reason for this was that most candidates did not appreciate that it could be answered by explaining why stable prices was better than the alternative of inflation or deflation. Strong answers explained the benefits of stable prices e.g. affordability, confidence in consumption and investment, keeping exports competitive and attracting MNCs. A typical weaker answer was 'If price is stable, it will remain unchanged for a period of time.' This explains what a stable price is but not what the benefits are.
- (d) Most candidates understood some aspects of the impact of an increase in air travel. Often this was limited to individual countries or industries rather than a global context. Some simply wrote about the benefit to firms providing air travel and greater tourism for certain countries. Few mentioned how this opened up trade and enabled faster delivery of certain products and provided greater employment. Few wrote about the harms of increased air travel in terms of pollution and climate change. More often answers commented upon the negative impact on other forms of transport e.g. shipping and cars and culture within countries, especially where increased air travel resulted in increased immigration and emigration.

- (a) Nearly all candidates stated that the tertiary sector was the provision of services and also gave a correct example e.g. education, banking and car sales were common answers. Incorrect answers often confused this with the secondary sector or simply gave two examples.
- (b) Many candidates were able to explain the difference between a private benefit e.g. something enjoyed by the consumer or producer of the product and an external benefit e.g. something enjoyed by a third party. Fewer were able to give examples of benefits relevant to healthcare. An example of a strong answer gave as examples, better health enjoyed by the patient and less risk of catching a virus if other people were vaccinated. A typical weak answer gave an external benefit such as the reduction in employment arising from building a hospital. This is not creditable as it is



not a third-party benefit. Weaker answers sometimes gave examples not linked to healthcare e.g. 'less carbon monoxide in the air.'

- (c) Most candidates understood the term merger but, in many cases, the explanation was too vague and did not make clear that the two firms were in the same industry and at the same stage of production. Stronger answers explained that the government was concerned about market failure, the lack of competition and growth of monopoly power which meant that consumers faced higher prices, lower quality, and less choice. Weaker answers could only analyse one or two of these factors.
- (d) Candidates showed some understanding of what MNCs are and some of the factors that attracted them to set up in a country. Strong answers explained how changes in those factors e.g. cheap labour, raw materials and low taxation from the government could result in MNCs looking elsewhere. Weaker answers tended to simply reverse their previous argument without explanation of why they may have changed. The weakest answers simply wrote about the advantages and disadvantages to the host country of an MNC setting up within the country which did not answer the question set.

- (a) This question did not require a diagram, but many drew one. In many cases, the diagram drawn showed the movement down the demand curve resulted in lower price and increased demand and therefore fully met the requirements of the question. Other diagrams were incomplete e.g. demand curve not labelled or showed a shift in the demand curve to the right. Those that simply wrote an answer needed to state that it would result in a movement along the demand curve from left to right. A typical incorrect answer given was 'a fall in the price of gold would cause the demand curve to shift to the right'.
- (b) Most candidates understood the term recession. Stronger answers wrote about lower output resulting in lower income and firms reducing their workforce resulting in unemployment. Other correct answers included lower tax revenue and governments having to cut expenditure, for example on education. Weaker answers gave confused responses explaining how recession resulted in higher prices and inflation.
- (c) The most common error made by many candidates was not recognising that the answer required an explanation of what caused the change in imports e.g. it was not sufficient to state that imports were cheaper without explaining that this was due to higher inflation in the home country or there had been an appreciation of the currency. Another common answer referred to failure in the harvest, e.g. rice, leading to the country having to import more rice to feed the population. Strong answers were able to explain the changes. Weaker answers simply stated the outcome e.g. imports rose because the imports were cheaper and higher in quality.
- (d) Most candidates understood what was meant by fiscal policy and were able to show how expansionary fiscal policy e.g. increased government spending and/or tax reductions could help achieve full employment. Strong answers were able to refer to specific aspects of fiscal policy e.g. government grants and subsidies, encouraging firm to take on more workers. Weak answers often confused monetary policy e.g. changes in interest rates with fiscal policy. Weaker answers often reversed their argument to explain why fiscal policy might not achieve full employment e.g. writing about contractionary fiscal policy. Strong answers introduced other factors such as government spending might not be sufficient if there is very high unemployment and that there could be high labour immobility due to structural unemployment.



ECONOMICS

Paper 0455/22

Structured Questions

Key messages

- Accuracy of diagrams is important. This includes accurate labels on the axes.
- In answers to **Question 1**, candidates need to use and interpret the information in the source material. For example, in the case of **Question 1(h)**, the source material mentions that the fluctuations in the Tunisian foreign exchange rate affected the country's current account of the balance of payments. Candidates needed to develop this information to explain how a rise in the value of the Tunisian dollar might increase or reduce the country's current account deficit.
- Most candidates allocated their time well. A few devoted too much time to the (a) and (b) questions in Section B. It should be possible to answer the (a) parts briefly. For example, Question 5(a) could be answered in two words. It is expected that answers to the (b) questions would be briefer than the answers to the (c) questions.
- As mentioned in previous reports, it is important that candidates answer the actual questions set. This applies particularly to the (c) and (d) questions in *Section B* where some candidates do not answer the question set. For example, in **Question 5(d)**, it was relevant to explain that there would be an opportunity cost involved in increasing government spending on housing and that this might be spending on education. It was not appropriate to turn the question into one on the advantages and disadvantages of government spending on education.

General comments

Most candidates answered all the required questions. There was an increase in the proportion of candidates answering the questions out of order. The risk with such an approach is that candidates can unintentionally leave questions out. A number of candidates also incorrectly labelled the questions they answered. For example, writing **Question 3(c)** while giving an answer to **Question 4(c)**. It is important to avoid this.

Candidates who paid careful attention to the source material and applied relevant economics performed well on **Section A**. There was a spread of performance on the (a) parts of **Section B**. There were some accurate answers to the (a) questions but a proportion of candidates answered the questions without thinking carefully about what was being asked. In the case of the (b) questions, not all candidates included sufficient economics in their answers. There were some strong answers to the (c) questions, especially **Question 4(c)**, but some candidates did not focus their answers sufficiently on the particular question they were answering. The performance on the (d) questions varied from answers that just stated points to answers that explored the questions in depth.

Comments on specific questions

Section A

- (a) Some candidates omitted this question. A number wrote that they did not have a calculator with them. Candidates should remember that they can use a calculator in this examination.
- (b) Candidates needed to focus on the qualities of a good tax referred to in the source material. Some candidates identified reducing the tax burden and relying more on indirect taxes rather than the qualities of a good tax.



- (c) There were some strong answers to this question. A relatively high proportion of candidates identified two reasons why the Tunisian government regulates the price of flour and milk, rather than identifying and explaining one.
- (d) The key here was to focus on two ways that the Tunisian government tried to reduce specifically frictional unemployment. People who have been unemployed for ten years are not experiencing frictional unemployment which is temporary in nature. They are likely to be experiencing structural unemployment.
- (e) This was a challenging question. To answer this question successfully, it was important that candidates recognised that the data showed the change in average wage. This change was positive over the whole period, with the average wage rising each year but at different rates. There were some strong answers which both examined the pattern of changes in the average wage and the inflation rate over the period and explored the possible reasons for the direct relationship. A small proportion of candidates just wrote down what the figures were without any interpretation.
- (f) Most candidates produced accurate diagrams. Some candidates confused the demand and supply curves. A few stated that prices would rise but did not explain why.
- (g) In general, performance on this question was good. Many candidates were able to explore the benefits of subsidising electricity production for the industry, for other industries, for consumers of electricity and for macroeconomic performance. They also recognised that such a subsidy would involve an opportunity cost and might result in inefficiency. An example of a strong answer:

Why it should:

Subsidies will reduce the cost of producing electricity. Firms may therefore reduce the price of electricity. This can make it more affordable for those with a low income and may reduce poverty. People may also spend more on other aspects, buying more high quality education and healthcare, therefore having a higher living standard. The cost of production for other firms (not the electricity firms) will also decrease. Lower cost may mean there is low cost-push inflation and higher profit (profit = revenue – cost). This profit may be spent on investment of capital goods to increase the quality of products. Firms may also lower prices and make products more affordable. Higher quality and lower price will also increase the products' international competitiveness, causing foreign demand to be high. Exports will increase and there may be a current account surplus. Firms may also expand and employ more workers.

Why it should not:

Subsidies may cause firms to become over reliant on them and may, in fact, cause them to be less efficient. They may also choose not to pass on the benefit to consumers and not reduce price. There will also be an opportunity cost for the government as the money may be spent on other areas, for example, healthcare and education.

(h) Responses to this question varied. A small number were confused about the effect a rise in the value of the Tunisian dinar would have on the price of Tunisian exports and Tunisian imports. More candidates were confused about the effect it might have on total demand in Tunisia. These candidates thought that an increase in spending on imports would increase total demand in Tunisia.

There were some strong answers. For example:

A rise in the value of the dinar, an appreciation, means that imports will become cheaper and exports more expensive. Cheaper imports means that raw materials can be imported at lower prices which would decrease costs of production. Modern technology and equipment can be imported at cheaper rates helping to achieve efficiency. A rise in the exchange rate may attract MNCs.

However, exports being expensive may reduce the revenue earned by exporters. Due to higher competition, people/countries will switch to cheaper alternatives. This has a negative impact on the current account of the balance of payments. As a result, local industries may shut down meaning a fall in GDP. Cyclical and structural unemployment may occur due to a fall in aggregate demand and thus a decrease in living standards.



Section B

Question 2

- (a) Most candidates recognised that the opportunity cost of producing primary sector products is producing secondary sector products and tertiary sector products.
- (b) This was generally well answered. The two most popular policy measures identified were an increase in government spending on education and the provision of unemployment benefit. Most candidates explained how the policy measures they identified could reduce poverty. Candidates must ensure they provide the necessary links in their answers to achieve full marks.
- (c) There were some good answers provided to this question. These included relevant analysis of the effects on, for example, choice, price and availability. Some answers lost focus and wrote about the effects on workers.
- (d) The strong answers here made good use of economic concepts including, for example, external costs, productivity and structural unemployment. A number of responses just stated points based on general knowledge. An example of a Level 1 answer:

If a country is having traffic congestion and it can only stop by taking some measures like encouraging people to walk to school and work then government should definitely encourage people. If the school or workplace is really near where you live then a person should walk and not be that lazy as it's for their own benefit as they will not have to stay in traffic congestion and will make people's lives easier. Government should encourage people as this is no harm and people will help themselves by this decision and the traffic problems can get solved.

This answer recognises that the measure may reduce traffic congestion and may work if the schools and workplaces are near to where people live. The answer lacks economic analysis and repeats, what are essentially, points based on general knowledge.

Question 3

- (a) Some answers were rather vague such as 'microeconomics is small whereas macroeconomics is large'. Most candidates recognised that microeconomics is concerned with individual markets whereas macroeconomics is concerned with the whole economy.
- (b) A number of candidates did not provide adequate explanation. Some of these candidates just stated that people with less education would get jobs that would pay less and so they would earn less. The stronger answers explored why they might be paid less, why they might be unemployed for some time and why they might have periods off work due to illness.
- (c) There were some strong answers to this question. There was some particularly strong analysis on the possible effects that the introduction of a national minimum wage might have on firms' costs of production and on the incentive to take up job offers. Some candidates seemed confused about the nature of a minimum wage. These candidates wrote about the effects of introducing a lower wage.
- (d) There was some good discussion provided about the different effects that demand-pull inflation and cost-push inflation might have on economic growth. Strong answers also examined other influences including how the economy's inflation rate compares with rival economies, inflation rates and the impact of inflation on the real value of debt and so on total demand.

An example of a Level 2 answer:

A high inflation rate may mean that prices for goods and services are increasing rapidly in a country. Higher inflation rate may cause export prices to rise. This may reduce demand for exports. As a result, their goods and services may lose international competitiveness. This may reduce exports which reduces GDP. The lower net exports reduce aggregate demand which leads to a reduction in economic growth.

However, an economy with high inflation may encourage more firms to produce since they benefit from higher prices. This may increase the supply of products which may increase aggregate



supply. A rise in aggregate supply may increase economic growth. Furthermore, in the longer run, higher supply may reduce demand, leading to a reduction in demand-pull inflation. This may help to make exports competitive which will increase economic growth.

In this case, the answer starts well by examining how a high inflation rate could reduce economic growth by lowering total demand due to lower exports. More aspects need to be covered and more depth provided to achieve a Level 3. For example, the effect on firms' costs of production might have been considered. The reason why a high inflation rate might encourage firms to increase output could have been explained in more depth. The comment 'higher supply may reduce demand' is also confused.

Question 4

- (a) Most candidates' answers revealed an accurate understanding of a recession. Some candidates answered a different question by identifying two reasons why a government may want to reduce tax revenue during a recession.
- (b) There are some links between the characteristics and the functions of money. However, the characteristics are not the same as the functions. Some candidates just identified the functions. In the case of candidates who correctly concentrated on two characteristics, the three most popular characteristics explained were general acceptability, portability and durability.
- (c) There were some strong answers to this question. Many candidates showed a good awareness of the effects on workers' remittances, the current account of the balance of payments and the knowledge, skills and experience workers may gain in other countries and which they may bring back to their own country in the future. Some answers lost their focus and wrote about the general effects of net emigration.
- (d) Most candidates showed a good awareness of the meaning of capital. Most were able to identify some possible benefits and some disadvantages resulting from firms buying new capital equipment. Not all candidates explored these benefits and disadvantages. Some candidates also did not focus on consumers.

An example of a Level 3 answer:

Firms buying new capital equipment could benefit consumers. First of all, the firm can improve the productivity. Using capital equipment, such as machinery, increases the rate of production. The faster the production, the quicker firms can respond to changes in consumer demand. Secondly, using capital equipment can ensure the quality of products. In the process of production, the quality can be improved and the products can be identical, avoiding information failure or lack of quality of goods. Also, the machinery can be cheaper than labour which could reduce the average cost of production and this can cause a reduction in price of the product. So, consumers may be able to afford to buy more products.

However, capital may produce identical products. It may not be able to produce a diversity of products which are unique. Some consumers may not be willing to buy goods that are not handmade. Using machinery may make it hard to reach the quality of hand made craft and so consumers will not benefit. Also, some firms produce services that require more labour rather than capital and these may benefit from better quality labour rather than more capital equipment. In the short run, firms may also focus more on capital goods and may reduce production capacity of consumer goods. This may cause a shortage of consumer goods and increase price for consumers.

This answer achieves Level 1 at the start by stating that buying new capital equipment can increase productivity. It then goes on to achieve Level 2 by examining how the purchase of new capital equipment could benefit consumers. Given the strength of the first paragraph and the provision of depth of analysis of why new capital equipment may not benefit consumers in the second paragraph, the answer achieves Level 3.



- (a) Some candidates showed confusion between free goods and public goods. For example, some identified streetlights, not recognising that the production of streetlights involves an opportunity cost.
- (b) A number of candidates wrote about the influences on demand for goods and services rather than the influences on demand for factors of production. In the case of those candidates who answered the specific wording in the question, the most popular influences explained were the price of factors of production and their productivity. There were some good explanations based on influences that cause the relative productivity of capital and labour to change.
- (c) There was a full range of responses to this question. Some candidates just stated what would happen to demand for the two products. Others wrote about the changes in demand in terms of complements and substitutes. Others provided more in-depth analysis by examining the nature of complements and substitutes. A number of candidates wondered off the central focus of the question by examining how the changes in demand for football shorts and demand for basketball shirts would affect their prices.
- (d) Some candidates wrote about the effect of an increase in government spending with little reference to government spending on healthcare. Others just concentrated on the possible effects on household spending and the possible opportunity cost. There were some strong answers produced. An example of a Level 3 answer:

An increase in government spending on housing will be beneficial for an economy. Housing is a basic good. When there is an increase in government spending on housing, it'll lower the price of houses. Making it more affordable, so reduce poverty and increase living standards. It may also make the households more confident, so encouraging spending and consumption which leads to higher aggregate demand and economic growth.

It may also increase employment in the housing industries, thus reducing unemployment, increasing incomes and purchasing power, causing a rise in living standards and a reduction in poverty. Higher employment may also mean higher income tax revenue for the government and so enable the government to spend on healthcare and education.

Cheaper housing may attract investment and MNCs may set up in the country. A house is property and wealth. Individuals can use their house to borrow money from banks and increase their spending on setting up new firms or spending on education.

However, government spending has an opportunity cost. In the short run, the government may not be able to spend on education and healthcare.

Subsiding housing may cause pollution and environmental damage while building the houses. This may lower living standards in the short run.

The government may be in a budget deficit. In order to increase revenue to spend on housing, the tax rate may rise, causing low incentives to work and low productivity of workers. Moreover, raw materials for building a house may be imported which may worsen the balance of payments.

Government spending is a form of fiscal policy which may increase inflation in the short run. When more people are employed in the housing industry, it may reduce workers available for other industries.

Some points of the answer might have been developed further, for example, the possible harmful effects on the environment and why increasing spending on housing may cause inflation. However, the answer has a wide coverage of relevant points and some depth on, for example, why efficiency might fall.



ECONOMICS

Paper 0455/23 Structured Questions

Key messages

There are two key messages to emerge from candidate responses in this examination: the need to read the source material very carefully before answering questions in **Section A** and the importance of looking carefully at each word in the questions, especially for the shorter questions in **Section B**. At the start of the questions (page 3) in **Section A**, there is a clear instruction to '*refer to the source material in your answers*' and those candidates who follow this instruction carefully tend to perform much better on these questions than those who ignore it. This was a particular problem for those candidates who didn't use the source material to **identify** (examples of external costs) in **Question 1(b)** and those who didn't use the numerical data provided when answering **Question 1(f)**.

In Section B, looking carefully at each word in the question was very important for responses to Question 2(b), Question 3(a), Question 3(b) and Question 4(b), where two (in **bold** in the question) answers were required. For example, in Question 3(a) two pairs of substitute products were required but a large number of candidates only gave two products in total in their answers, rather than the four products (two pairs) required by the question.

In addition, time allocation continues to be a problem for a number of candidates in this examination. The questions with the most marks allocated to them are the part (d) questions in **Section B**. These 8 mark questions require answers with depth that discuss both sides of the question and they should, in general, be longer answers than those for the 4 mark and 6 mark questions found in both **Section A** and **Section B**. Long descriptive answers to the questions that ask for explanations or analysis leave insufficient time to develop reasoned two-sided discussions in the 8 mark questions.

General comments

Apart from the issue indicated above (not referring to the source material), errors in following the instructions on the question paper were infrequent but there was a small minority of candidates who answered three questions in total, rather than three from Part B. Most candidates label each part of their answers clearly but there are some candidates whose labelling of questions can be confusing or who omit to label each part of the question. Finally, many candidates write conclusions and they can add something to the discussion in part d questions if they add new points. Conclusions that repeat points already made however, are summarising rather than providing extra discussion points, and cannot be credited because they add nothing more to the answer.

Comments on specific questions

Section A

- (a) Most candidates were able to calculate the percentage contribution of Jakarta to Indonesia's GDP by dividing \$300 bn by \$1100 bn and multiplying by 100. The most common mistake was to do the calculation upside down (Indonesia's GDP divided by Jakarta's).
- (b) This question was well-answered on the whole, with the majority of candidates able to identify two external costs from air pollution, rising sea levels, disease and climate change. Candidates who gave external costs that were not included in the source material (such as soil erosion or general pollution) could not be given credit for these answers.



- (c) The best answers to this question explained that real GDP per head has been adjusted for both population and the rate of inflation. The answer also required candidates to indicate that they understood the link between higher real GDP per head and higher incomes, implying higher living standards for people because of greater ability to spend and consume. Some candidates incorrectly interpreted GDP per head as a measure of wealth, whereas wealth is a stock of assets rather than a flow of income.
- (d) This question required candidates to explain two ways in which climate change can lead to a fall in the Human Development Index (HDI). Strong answers used a clear structure by identifying two problems from the three given in the source material (flooded schools, increased diseases, submerged farmland) and then used this structure to explain each point. Weaker answers used points from outside the source material, such as global warming that may cause drought, but this did not apply to the Indonesia case study and therefore could not be credited as a correct response.
- (e) Most candidates had a good understanding of the nature of PPC diagrams and were able to draw curves of the correct shape and to indicate an inward movement of the curve with arrows. The best answers were clearly and correctly labelled. Incorrect labelling of the axes was a weakness often seen in answers. A confusion often arose with axes on diagrams being labelled price and quantity, as in supply and demand diagrams, rather than with two products (e.g. capital goods and consumer goods) as required for a PPC. It is also important for accuracy that candidates draw PPC curves that clearly meet both axes and do not turn inwards or downwards before meeting the axes.
- (f) The following is an answer to this question that is both thorough and precise, scoring the maximum five marks with an economical use of words:

'The relationship is positive. Countries with higher GDP have higher spending on the environment. Japan has highest GDP and has highest government spending on environment. Thailand has lowest GDP and has lowest government spending on environment. An exception is Indonesia which has higher GDP than Switzerland but lower government spending on the environment.'

This response successfully uses the source material provided to interpret the question in a concise way. By using the source material precisely to analyse the data that was given in the table, this avoids the sort of long descriptive answers that are often seen in responses to this type of question.

- (g) Strong answers to this question focused on the subject matter of internal migration, whereas weaker answers often strayed from the point and covered external migration. The key to a good answer was to use the source material effectively and to discuss resource allocation in both the areas that would gain population and those areas that would lose population. The best responses examined crop production and changes in the labour force, contrasting the different effects upon the different areas. There was also a tendency from some candidates to digress into discussion of the relocation of the capital city of Jakarta, but this was the focus of the next question rather than this one.
- (h) As was the case in the previous question, candidates who used the source material effectively tended to do well on this question whereas candidates who ignored the source material had difficulties producing a satisfactory answer. There were a number of potential approaches to discussion of the benefits of relocating the capital city that could have been extracted from the source material: job opportunities, reduction in inequality, and environmental gains, for example. These benefits could then be contrasted with disbenefits, such as the very high cost of the move (£32.5 bn), the small number of beneficiaries, and the resulting inequality that may be caused.

Section B

Question 2

(a) This question was not answered well on the whole because many candidates did not fully understand the concept of the secondary sector of an economy or omitted to provide an example in their answer. The most common misunderstanding was the difference between the secondary and tertiary sectors, with answers using examples such as shops or restaurants selling a finished product.



- (b) Only a minority of candidates were able to produce clear well-structured answers to this question on resource allocation decisions. Section 2.2.2 of the syllabus for 0455 Economics states that 'what to produce, how and for whom' are the three key questions for resource allocation. Candidates who used this as the basis for their answer were able to produce two good answers to question, but most did not and subsequently struggled to produce a coherent answer to this question.
- (c) As was the case in Question 1(g), a number of candidates were distracted by Section A source material about the relocation of Jakarta and focused on that issue, rather than the general issue of migration to another area in a country. Many candidates analysed external migration between countries and, in the context of the question, this was perfectly acceptable as an answer. The strongest answers, however, focused on jobs and the higher living standards they can provide, better public services such as education and health, and cost of living issues such as housing prices. Weaker responses digressed into comments about the need to control immigration but this was a question about the reasons for migration, not the problems it could potentially cause.
- (d) The following is a Level 1 response that has some simple attempts at using economic theory but the answer is not developed into a discussion that analyses the question sufficiently in order to move beyond Level 1:

'Government should introduce a minimum price for houses because if they don't developers will take advantage of it and price them too high than people can afford to purchase (L1). It is also good as it helps regulate the area around the property and allow that to determine the price. The downside of this is that developers won't make that much profit (L1). Overall it is good to regulate this as it keeps costs down'. (L1 overall).

Two simple economic points have been made (unable to afford and lack of profit) but the rest of the answer does not directly address the question of a maximum price on housing.

Question 3

- (a) As noted in the key messages above, a large number of candidates identified two products rather than **two pairs** of products that are substitutes. Thus 'tea and coffee' was given as an answer for example, but no second pair was identified for a second mark. Those who did identify two pairs (four products) were able to produce a wide range of different answers to this question.
- (b) Clear reading of the wording was also very important for answers to this question. Many candidates incorrectly read 'increased revenue' as 'increased profit' and their answers addressed the issue of reduced costs rather than the increased demand for products. The best answers explained changes in price, using the concept of elasticity of demand, whereas weaker answers gave change in price without explaining the significance of price elasticity of demand. Very few candidates gave the increased price of substitutes or the reduced price of complements as reasons but these approaches were usually successful.
- (c) Most candidates who attempted this question were able to identify high dependency as a consequence of a large population of under 16's and they were able to develop this point by explaining that young people did not work, and therefore had no income, leaving them dependent upon adults to support them economically. Better answers developed this response further by examining the longer term, when young people will join the labour force and potentially contribute to higher economic growth. A considerable number of candidates made unsubstantiated assertions about the behaviour of young people, for example, that they spend more on demerit goods, are more likely to contract diseases, or that they are more likely to commit crimes. This approach should be avoided in economics examinations because the points are not established (NE) and are made without any support; answers should only be based upon clear evidence or economic theory wherever possible.
- (d) The following answer is a Level 2 response that examines both sides of the argument but lacks the accuracy and clarity required for a Level 3 response. It was therefore awarded a high Level 2 mark:

'A regulation imposed by the government will imply less video games will be sold (L1).

By imposing different types of regulation on video games this will cause a shift in the economy. If the regulation is to produce less video games for under age people, then the industry of video games will start to lose a lot of money they will need to cut some costs (L2) by lowering wages or



worse quality products and this will cause a loss of revenue and unemployment will occur causing the industry to destroy and the governments economy will shift downwards causing less economic growth and not achieving macroeconomic aims by not having stable prices, bad distribution of income, and high unemployment.

Also by imposing regulations on video games some people will have more productive time on school or work causing more educated workers in the future and more productive as well causing an increase in innovation that will lead to future investment causing economic growth and achieving macroeconomic aims by creating more educated workers. Also increase the demand for substitutes and more employment will occur in different industries.' (L2 overall)

The second paragraph contains a number of good discussion points about disbenefits but is also repetitive (video games) and lacks a clear focus on the question in several places. In particular, stable prices and distribution of income are not appropriate to this question. Similarly, in the final paragraph, the answer is good but also strays from the point in an attempt to provide as much detail as possible. The candidate's answer would also benefit from a clearer structure – the lack of punctuation and the 'scattergun' approach indicates a rushed answer rather than careful thought. Replacing the word 'also' with 'on the other hand' would make the candidate's intentions clearer.

Question 4

- (a) In answers to this question, there was a clear distinction between those candidates who defined a trade in goods deficit in financial terms (revenue from exports is less than spending on imports) and those who only considered the amount (imports greater than exports). The former were able to achieve full marks but the latter were restricted to one mark.
- (b) The small number of candidates who had a clear structure to their answer usually gained maximum marks for this question. Firms can be classified by stage, sector, size, level of competition and in several other ways. By choosing two of these classifications, a candidate was then able to explain each in turn without much difficulty: for example, the three stages are primary, secondary and tertiary; two sectors are public and private firms. A majority of candidates were unable to provide two distinct classifications of firms and their answers lacked clarity and precision as a result. Unfortunately, as indicated in the key messages above, many candidates only gave one way of classifying firms in their answers, assuming that they had already given two ways: for example, private / public sector but this is only one way, rather than two.
- (c) Most candidates who attempted this question could provide general answers as to why a government may protect its industries from foreign competition e.g. to protect jobs, but only a minority were able to use specific examples to produce comprehensive answers, such as protecting infant industries or protecting strategic industries. This was another question where candidates who read the question carefully performed well, whereas those who answered 'how' industries may be protected, rather than 'why', missed the point of the question. Many candidates were determined to answer a different question, namely the one they had prepared rather than the one on the question paper, in this case types of protection (tariffs and quotas) rather than the economic reasons for protectionism in the question.
- (d) This answer is a low Level 2 response because, although it develops the discussion in a limited way, it is one-sided:

'Governments should increase spending on healthcare, if more money is spent in healthcare less people will be sick means more people willing and able to work (L1). Less sick people or early deaths due to disease increases HDI as well as more workers higher GDP per capita (L2), more spending on wants, more money for the government through taxes more government spending. More tourism because healthy people and high HDI as well as more government spending could be used to invite tourists and use more land'. (L2 overall).

The answer also lacks a clear structure because a series of points are given one after the other rather than developed. In addition, the final sentence is not very clear. This may be because the candidate was running out of time. Better time management would have allowed a more reasoned discussion of the issues involved here.



Question 5

- (a) Most candidates who attempted this question were able to identify two benefits of a horizontal merger, such as economies of scale and more market power.
- (b) The strongest answers to this question focused clearly on external benefits of vaccines, such as a healthier workforce or more innovations in health care. Weaker answers were often too vague and gave 'less sickness' for example, rather than specific external benefits that might come from the use of vaccines.
- (c) Those candidates who identified diseconomies of scale as a reason why merged firms may fail usually did well on this question, but a surprisingly low number of candidates took this approach. Identifying diseconomies of scale then enabled the candidate to continue the analysis by linking this to higher long run costs, and therefore potential losses. This point could then be expanded by looking at examples such as difficulty controlling the workforce. The most popular approach was to identify possible disagreements between the employees of a merged firm and then to give an example, such as culture clashes.
- (d) The following answer is a Level 3 response to this question. It has a reasoned discussion of both sides of the discussion that considers several economic ideas in some detail:

'Investment is beneficial to an economy for an increased economic growth (L1). This is because investment enables firms to expand their productions. It can advance technology, which lowers the cost of production as well (L2). This increases the international competitiveness of the country's products, leading to higher exports and better balance of payments. In the case study, the investment in vaccines was high in 2020. This encourages more students to study medicine, which can lead to more innovation in this industry in the future. Therefore the country can enjoy a better reputation and the exports of other industries can also rise, increasing growth and employment.

However investment can also be harmful to an economy. As firms expand production, more resources will be extracted and this might lead to depletion of resources in the future. There will also be more pollution, resulting in respiratory problems of the labours and decreases their productivity. The government will therefore have to spend more on healthcare and less on other merit goods **(L3).** An expand in production will also mean the employment will rise and so does income. As spending rises, there will be higher inflation. What's more, if investment is from overseas, it might mean there is an outflow of profit. The rapid expand of one industry may result in a fail of other industry and causes unemployment. The over-reliance on one industry is also a risk for an economy.' **(L3 overall).**

The response is stronger on one side than on the other but it is a comprehensive answer that develops a number of economic points and analyses them thoughtfully. For example, economic growth is first identified as a consequence of investment and this idea is then developed by explaining how it enables firms to expand and how it also lowers production costs. This therefore takes the answer to a Level 2 response. It is a Level 3 response overall because both sides of the argument have been considered and developed with depth.

