ECONOMICS

Paper 0455/12
Multiple Choice

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

Key messages

Candidates should possess a thorough knowledge and understanding of all topics in the syllabus. This is especially the case when applying economic analysis to numerical, diagrammatic and graphical data.

To have a clear understanding of what is required, it is important for candidates to read through each item very carefully before selecting an option on the answer sheet.

General Comments

The questions for which the large majority of candidates selected the correct answer were **1**, **2**, **3**, **10**, **17**, **20**, **22**, **26** and **28**. These items covered topics across the syllabus range and were set to test a range of different skills.

The questions for which the fewest candidates selected the correct answer were **8**, **9**, **12**, **16**, **19**, **24** and **27**. These items also covered topics across the syllabus range and tested a range of different skills.

Comments on specific questions

Question 8 was answered correctly by 64 per cent of the candidates who chose option **D**. 23 per cent chose option **A**, 7 per cent chose option **B** and 6 per cent chose option **C**. The question gives the estimated price elasticity of demand (PED) of a product to be 0.5. The question then asks by how much must the price rise to reduce consumption by 10 per cent? Applying the PED formula the answer can be calculated as 20 per cent, option **D**. If the numerator and dominator were incorrectly inverted in the PED formula, option **A** would have been the result as appears to have been the case for a number of candidates.

Question 9 was answered correctly by 61 per cent of the candidates who chose option **C**. 20 per cent chose option **A**, 9 per cent chose option B and 9 per cent chose option **D**. A diagram shows the demand for and the supply of bread with a maximum price fixed by the government below the market equilibrium price. The question asks what is likely to be the immediate result of this? Correct analysis of the diagram reveals an excess demand at the imposed minimum price. This creates the shortage referred to in the correct option **C**. A maximum price will not shift the demand or supply curves rendering options **A** and **B** incorrect. A surplus of bread will occur if a minimum price is imposed above the equilibrium price, making option **D** also incorrect.

Question 12 was answered correctly by 64 per cent of the candidates who chose option **D**. 14 per cent chose option **A**, 10 per cent chose option **B** and 13 per cent chose option **C**. The question asked which of the four labour supply graphs provided shows that people prefer leisure to work above a certain income. With 'quantity of labour (supplied)' on the X axis and 'the wage rate' on the Y axis, the correct answer required the labour supply curve to bend backwards at some point. This illustrates the preference to substitute leisure for work above a certain income. Only option **D** possessed such a characteristic.

Question 16 was answered correctly by 64 per cent of the candidates who chose option **A**. 2 per cent chose option **B**, 3 per cent chose option **C** and 31 per cent chose option **D**. A table of data containing total fixed and total variable costs at different levels of output for a firm is provided. The question asks what happens as output rises? Applying the formula to calculate the average fixed cost (AFC) shows AFC falling as output rises, as correctly stated in option **A**. Applying other correct cost calculation formula to the data provided reveals all other options to be incorrect statements. A common mistake appears to have been to read the final column of the table as 'average variable cost' rather than 'total variable cost' leading some candidates to the incorrect selection of option **D**.

Question 19 was answered correctly by 62 per cent of the candidates who chose option **B**. 26 per cent chose option **A**, 6 per cent chose option **C** and 6 per cent chose option **D**. The question asked what is the likely outcome of an expansionary monetary policy? The increased economic activity that is likely to result from an expansionary policy would lead firms to expand to meet higher consumer demand, option **B**. The expansionary monetary policy suggested is likely to involve either an increase in the money supply, a decrease in the interest rate or a weakening of the exchange rate. None of these three measures would lead to the decreased borrowing by consumers suggested in option **A**, the fall in prices suggested in options **C** or the fall in inflation rate suggested in option **D**.

Question 24 was answered correctly by 31 per cent of the candidates who chose option **D**. 8 per cent chose option **A**, 11 per cent chose option **B** and 50 per cent chose option **C**. The question includes a diagram that shows the rate of inflation in a country over a four-year period with the target rate identified. The question asks what can be deduced from the diagram? Three of the years shown in the diagram have a positive rate of inflation and one shows deflation. Option **D** is therefore correct because it states the real value of money fell in three years. 50 per cent of candidates incorrectly selected option **C**, highlighting a popular misconception that the inflation rate is showing the actual price level.

Question 27 was answered correctly by 55 per cent of the candidates who chose option **D**. 1 per cent chose option **A**, 19 per cent chose option **B** and 25 per cent chose option **C**. The question includes a table showing figures for the real GDP of a country in a particular year across four quarters. The question asks at the end of which quarter had the economy experienced a recession? A recession is defined as two consecutive quarters of negative economic growth; this condition was met in the fourth quarter making option **D** correct. If a candidate incorrectly thought that any negative quarter of economic growth constituted a recession, then option **C** would have been selected as was the case for a number of candidates.

ECONOMICS

Paper 0455/22
Structured Questions

Key messages

- ***Section A*** has a question based on a table, graph or diagram. In answering this question, it is important to make use of the information provided. In this session, some candidates in answering **Question 1(f)** wrote in general terms about how a change in government spending might affect unemployment. They did not, however, analyse the data in the table which gave figures on government spending and unemployment from 2015 to 2020.
- It is important that candidates focus on the specific question asked. In answering the **(d)** part of the optional questions, a number of candidates wandered off the point of the question.
- To achieve Level 3 in their answers to the **(d)** part of the optional questions, candidates need to consider both sides and to provide depth of explanation to the points made.

General comments

The standard of answers on **Question 1** remained strong. Most candidates made good and appropriate use of the data provided, although as mentioned above, some candidates needed to analyse the information in the table in answering **Question 1(f)**. The most popular optional question was **Question 2**. **Question 5** was the least popular question, possibly because it was the last question asked.

There were some excellent scripts which revealed both a strong understanding of economics and an ability to apply that knowledge in answering the questions in a clear and relevant way.

Most candidates used their time appropriately, taking into account the command words and marks awarded. The vast majority of candidates answered all of the required questions.

Most candidates answered **Question 1** first, followed by three optional questions. A small proportion started with the optional questions followed by **Question 1**. Both approaches can work. However, a few candidates jumped from, e.g. **Question 2(a)**, to **Question 3(b)** to **Question 1(d)** and so on. Such an approach does not tend to work well as the focus of the questions often gets lost.

Comments on specific questions

Section A

Question 1

The performance on this question was generally good. Most candidates did make good and appropriate use the stimulus material in the majority of their answers.

(a) Most candidates answered this question accurately. A number, however, gave $560 as the answer, failing to give the billion. It is important that candidates recognise the size of figures.

(b) The majority of candidates accurately identified the two relevant causes of an increase in the quantity of US factors of production. Most also recognised that this question could be answered briefly.

(c) Most candidates explained that import tariffs could make imports more expensive relative to domestic products and/or reduce imports or raise tax revenue. The strongest answers linked this

effect to an improvement in the US's current account position, economic growth of the ability of the US government to spend.

(d) There were some very good answers to this question which related the two reasons to demand-pull inflation and cost-push inflation. For example:

There was a decrease in consumer expenditure, meaning that households spent less. As a result, aggregate demand may have fallen. This may explain why demand-pull inflation declined in 2020. Moreover, there was a reduction in workers' bargaining power, perhaps due to a fall in trade union power. As a result, the wage rises that workers were able to negotiate were lower. Firms' cost of production would have increased at a lower rate resulting in a fall in cost-push inflation.

(e) When candidates are asked to draw a diagram to **show** an effect of changes in market conditions, they do not have to write an explanation. A relatively high number of candidates could have saved some time by not providing a written explanation. There were many clear, accurate and well-labelled diagrams. However, some candidates confused the demand supply curves and some shifted the demand curve to the right rather than to the left.

(f) Although not all candidates made use of the data, there were some good answers provided. These analysed the main relationship shown, provided supporting evidence, recognised there was an exceptional year and gave a reason for the main relationship or sometimes the exception. For example:

The relationship between government spending and the unemployment rate is inverse, meaning that when government spending increases, the unemployment rate falls.

Evidence of this is in the pattern of 2015. It was the year of the lowest government spending and the unemployment rate was at the second highest. From 2015 to 2019, government spending rose by $700 bn and the unemployment rate fell from 5.3 per cent to 3.7 per cent.

However, an exception to this relationship is in 2020 when the government spent the largest amount of $6 600 but unemployment increased to its highest rate of 6.7 per cent.

Government spending and unemployment rates largely had an inverse relationship as when more is spent on healthcare and education, labour will become more productive and so more demanded.

(g) Candidates found this quite a challenging question. There were several ways candidates could have approached the question. They could have examined the benefits of low inflation and contrasted this with the disadvantages of a low inflation rate and/or of a central bank using contractionary monetary policy to achieve it. They could also have examined the disadvantages and advantages of high inflation. It was also possible that candidates could have combined these two approaches.

Some candidates became confused, for example, about the role of the central bank. A number of these wrote about the central bank using fiscal policy to reduce the inflation rate. There were, nevertheless, some strong answers, for example:

Inflation refers to the sustained increase in the price level over a period of time. A central bank should aim for a low rate of inflation as it would benefit the economy. A lower rate of inflation will reduce menu costs, as firms will not have to change their prices so often. Lower inflation would also benefit the balance of payments as domestic products would be more price competitive. Exports could increase and imports could fall.

However, if central banks aim for a lower rate of inflation, it is likely that they will use contractionary monetary policy. Higher rates of interest and lower money supply can lead to a recession as they may discourage investment and consumer expenditure. Lower output could cause unemployment and a decrease in a country's living standards.

(h) There were a high number of good answers to this question. Many candidates made good use of the stimulus material to explore the possible benefits that people may enjoy from economic growth and possible disadvantages that some may experience. An example of a good answer:

Economic growth can benefit everyone in the US as it is an increase in the productive capacity of the country over time. Economic growth will lead to an increase in incomes which means that the GDP per head is higher increasing the standard of living. Economic growth also leads to greater tax revenue for the government, which means it can invest in infrastructure, reducing unemployment amongst poorer households. Economic growth can also lead to firms achieving economies of scale such as managerial economies of scale as the output increases. This will lead to lower costs of production which may be passed down to customers in the form of lower prices.

However, economic growth can lead to demand-pull inflation. This is because economic growth leads to higher incomes, which causes an increase in aggregate demand. Demand-pull inflation can increase the price of essentials, which affects poorer households more than richer households. Additionally, economic growth can widen the wealth gap between the rich and the poor as the rich may benefit from a greater increase in incomes. Lastly, as economic growth causes natural resources to deplete and damages the environment, it will negatively affect those whose livelihood depend on these due to depletion and external costs.

However, some candidates did not focus on the specific question. These candidates wrote about the general advantages and disadvantages of economic growth. They wrote, for example, about the potential effects that economic growth might have on the current account of the balance of payments. They did not go on to explore whether changes in exports and/or imports would benefit everyone in the US.

Section B

Question 2

As already mentioned, this was a popular question. There was a spread of performance, particularly on **Question 2(c)** and **2(d)**.

(a) Candidates showed a good awareness of what motivates people to become entrepreneurs. The two most popular reasons identified were to earn a profit and to be independent.

(b) Although most candidates were able to identify two benefits that an MNC may bring to its host country, not all explained them. A small proportion of candidates wrote about the benefits that an MNC may bring to its home country. Careful reading of the stem might have prevented this.

(c) Some candidates wrote mainly about how a government could discourage the consumption of demerit goods. They either did not refer to merit goods or, more commonly, just identified that a decrease in demand in demand for demerit goods would increase demand for merit goods, without establishing why this may occur. Other candidates did explore in a direct and relevant way a number of measures a government could take to increase the consumption of merit goods. An example of a brief but good answer:

Giving a subsidy to firms producing merit goods will decrease their cost of production, therefore lowering their price and increasing demand. A government could advertise the benefits of merit goods, increasing demand as more people will now know about their full benefits, A government could also put regulations such as making it mandatory to consume merit goods.

(d) Most candidates recognised the possible different motives of private and public sector firms. Not all, however, went on to explain how this might influence the prices they might charge. Some candidates also just stated that competition would result in lower prices while lack of competition would result in higher prices. The stronger answers explained how the level of competition can influence the prices firms may charge and explored other influences such as the funds available and the size of the firms. An example of a Level 3 answer, which explored both sides in depth:

Many firms in the private sector have the incentive to be efficient and keep their costs and prices low so that they can compete with rival firms. They may also charge low prices to drive their competitors out of the market. Private sector monopolies may be large and so may be able to take advantage of economies of scale, lowering their costs and their prices.

On the other hand, private sector firms may charge very high prices. This is because their main objective is to maximise profits. If they are monopolies, demand for their products may be price

inelastic. This may enable them to charge high prices as consumers will not be able to switch to products from rival firms.

The main objective of the public sector, on the other hand, is to increase social welfare. So public sector firms may charge lower prices than private sector firms to make sure everyone can afford them. They may provide basic essentials free or at low prices to reduce income inequality and lower poverty. They may also charge low prices for merit goods to encourage their consumption and overcome market failure. The public sector may have more funds available to keep prices down if it has large tax revenue. It may also want to keep prices the same to avoid inflation, which is one of its macroeconomic aims.

Question 3

On a number of parts to this question, some candidates needed to pay more attention to the actual question set.

(a) Most candidates showed an understanding of a minimum price although a number of candidates confused it with a maximum price or wrote that it was the lowest price a firm could charge to make a profit.

(b) There were some good explanations of possible advantages of capital-intensive production particularly in terms of the hours that capital gods can work and the efficiency of capital goods. Some candidates, however, wrote rather vague answers. For example, some wrote that capital-intensive production would reduce labour costs without considering the overall effect on costs of production.

(c) Some candidates wrote an answer to a different question. These wrote about why farmers may receive a low income rather than why those who do receive low incomes have low living standards. Those candidates who focused on living standards were often able to explain how those might be influenced by low incomes and by farming. An example of a good answer:

Low-income farmers will have a low amount of disposable income and will be unable to spend money on and have access to key services such as healthcare. Due to the lack of health care and the physical demands of their profession, they will have a reduced life expectancy. Also, as they are unable to afford a good education, they are likely to be uneducated and lack information about hygiene and sanitation, as well as not having incomes to afford it, which will greatly reduce their life expectancy since they are more vulnerable to disease. They will also be unable to afford access to electricity and may even lack the income to afford enough food. A low-income farmer may not be able to save for the future, which may affect living standards negatively in the future as well when inflation may rise or during bad periods of weather and farmers may not be able to meet urgent needs.

(d) The strongest answers here explained how a subsidy on the export of sugar could affect the value of exports sold and how such an increase could affect a government's macroeconomic aims. Some candidates did not link a change in the output and price of sugar to the possible effects this might have on the government's macroeconomic aims. There were, however, some good comments about how effective a subsidy might be in increasing output and lowering price linked to macroeconomic aims. There was also some interesting discussion of how a recession abroad could make it difficult to sell more sugar and the opportunity cost of providing a subsidy in terms of how alternative uses could have a more beneficial effect on a government's macroeconomic policy objectives. An example of a Level 1 answer, which states a number of vague points but does not explain them:

Subsidising the export of sugar would allow firms to export more and earn more profit. Due to that the firms would be able to instead hire more workers. An increase in exports would fix any deficit in the current account of the balance. Exports would also increase the government's tax revenue as well as boost economic growth. However, spending too much may cause the government to lose too much money.

Question 4

This was a relatively well answered question with some good analysis shown in the answers to **Question 4(c)** and **Question 4(d)**.

(a) Although some confusion was shown between productivity and production, most candidates were able to identify two relevant causes. The most popular ones identified were improved education, higher wages and improved training.

(b) There was some good explanation in terms of why people may be attracted by high wages and job satisfaction. However, a small proportion of candidates just identified the causes and did not explain them.

(c) There were some pleasing answers to this question which developed good links between advances in terminology and an improvement in the current account balance on the balance of payments. An example of a good answer:

Advances in technology may lead to high quality products and higher efficiency. Higher efficiency will reduce costs of production which can lower prices. High quality and low prices will increase international competitiveness. More exports can be sold in foreign markets and fewer imports are likely to be bought. If export revenue rises and import expenditure falls, this can reduce a current account deficit or increase a current account surplus.

However, some candidates analysed the effects of advances in technology on firms' costs of production and prices but did not link them to the current account. Other candidates revealed a confusion between the current account of the balance of payments and the government's budget balance.

(d) The stronger answers here tended to examine how different causes of an increase in population could have different effects on a country's economic growth rate. There were some particularly good discussions of how immigration of skilled workers could increase output. A relatively high proportion of candidates recognised that a rise in the birth rate may have different effects on economic growth in the short and long run. There was also good use of the concept of optimum population. Some candidates, however, just stated points. For example, a number wrote that high population growth would cause unemployment without explaining why this might occur. An example of a strong L3 answer:

A country with a high population growth rate can achieve a high economic growth rate as the size of the workforce will increase in the long run. Economic growth is defined as the increase in productive capacity over time. An increase in the of the workforce as a factor of production will increase the output and productive capacity, achieving a higher economic growth rate. A high population growth rate will lead to greater tax revenue for the government both through direct and indirect taxation. The government can implement expansionary fiscal policy by increasing expenditure to boost economic growth by increasing aggregate demand through investing. A higher population growth rate will also lead to increased consumer expenditure and demand as there will be more people in the economy. increased demand would cause an increase in production and output, leading to a high economic growth rate. Lastly, a high population growth rate may also incentivise MNCs to operate in that country as they would want to access a growing market. Increased investment from MNCs will boost economic growth.

However, if the population growth rate causes the population to exceed the optimum population size, the economy will not be able to sustain a high economic growth rate. An increasing population size will cause greater pressure on resources, which may be depleted, reducing the quality of the land factor of production, leading to a fall in production and output. Additionally, a high population growth rate may create a higher dependency ratio, which would cause the government to spend on benefits. This would reduce the funds it has available to spend on the economy, slowing down economic growth. It may also cause a budget deficit and lead to reduced government expenditure. A high population growth rate may force parents to stay at home to take care of the children which may temporarily decrease the size of the workforce and reduce the workforce participation rate, slowing down economic growth.

Question 5

Fewer candidates answered this optional question than the others. There was a full range of responses with some good answers particularly to **Question 5(c)**.

(a) This was reasonably well-answered. However, some candidates explained what is meant by price elasticity of demand rather than identifying two determinants of price elasticity of demand. A few gave determinants of price elasticity of supply.

(b) This was well-answered in terms of finite resources and infinite wants. However, not all candidates related the points they made to the economic problem specifically to consumers.

(c) Candidates did pay careful attention to the words in this question, picking up on the word 'not'. They provided a variety of reasons why some workers may decide not to join a trade union. Many candidates recognised that workers might be happy with their pay and conditions. A number also mentioned possible reluctance to take industrial action, inability or unwillingness to pay a subscription fee and government discouragement of trade unions. An example of a good answer:

Some workers may decide not to join trade unions as they already have better pay and working conditions and so not require the services of trade unions. Moreover, they may not want to disrupt their pay by undertaking strike action which stops all production and thus payments. Furthermore, there may be unemployment in the market which causes employees to be replaceable as firms can easily hire more workers due to unemployment, So, if employees put too much pressure on firms through trade unions, they may get dismissed. So, employees will not join trade unions as it may endanger their jobs. In addition, the government may have reduced the powers of trade unions so employers may not want to join as they won't benefit as much. Lastly, the fees to enter the trade union may be too high for some workers to join.

(d) There was a range of responses to this question. The most popular points covered were the possible opportunity cost involved in paying state pensions, the possible encouragement that might be given to working to an older age and the possible adverse effect on the living standard of state pensioners. An example of a Level 2 answer which provided some limited explanation on both sides:

If the government decreases the amount of pension it can focus on spending on other areas such as education and healthcare. This can help in increasing the productive capacity of the economy, It may also make individuals less reliant on the government and they may start to save more of their earnings.

However, it may be necessary to provide more pension because older people may not be able to find a job due to sickness, disability or discrimination. This may cause them to live in poverty.