## ECONOMICS

| Paper 0455/12 <br> Multiple Choice |  |  |  |
| :---: | :---: | :---: | :---: |
| Question Number | Key | Question Number | Key |
| 1 | C | 16 | A |
| 2 | D | 17 | B |
| 3 | A | 18 | C |
| 4 | D | 19 | A |
| 5 | D | 20 | B |
| 6 | C | 21 | A |
| 7 | C | 22 | D |
| 8 | B | 23 | A |
| 9 | B | 24 | D |
| 10 | D | 25 | A |
| 11 | A | 26 | D |
| 12 | C | 27 | A |
| 13 | B | 28 | A |
| 14 | B | 29 | C |
| 15 | D | 30 | B |

## General comments

The mean score on this 30 question multiple-choice examination was 21.1 compared with a mean last year of 23.3. Candidates are to be congratulated on such a result.

The questions for which most candidates selected the correct answer were 4, 11, 16, 18, 25 and 28. These questions were answered correctly by 85 per cent or more of the candidates. They covered different parts of the syllabus and were set to test different skills.

The questions that were answered correctly by fewer than 60 per cent of the candidates were Questions 5, 6, 7, 12, 15 and 20.

## Comments on specific questions

## Question 5

Question 5 was answered correctly by 55 per cent of the candidates who chose option D. 16 per cent chose option A, 16 per cent chose option B and 13 per cent chose option C. The distribution of the responses from those candidates that did not choose the correct answer could well indicate that candidates were guessing the correct answer. In a market economy not all consumers are willing to pay the same price (option A), the price is determined by the balance of demand and supply, not just the costs of production (option B) and profits will not necessarily be made (option C).

## Question 6

Question 6 was answered correctly by 40 per cent of the candidates who chose option C. 7 per cent chose option A, 50 per cent chose option B and 3 per cent chose option D. When a good has a characteristic of being non-rival and non-excludable (option $\mathbf{C}$ ) it is an indication that it is a public good. This will not be provided by the market mechanism even though it might be a desirable good, and, therefore, it is said that the market is failing to produce the good that is required by the economy. The absence of external benefits (option B) does not mean that the market has failed. Some goods provided in quantities required by the market might not have any external benefits.

## Question 7

Question 7 was answered correctly by 58 per cent of the candidates who chose option $\mathbf{C} .10$ per cent chose option A, 14 per cent chose option B and 18 per cent chose option D. When the price of a substitute good falls, more consumers will prefer to buy that good. Therefore, the demand for the good in question will decrease. On a diagram this is represented by a shift in the demand curve to the left. It will move from point $E$ towards the origin and, presuming there is no change in the supply curve, the equilibrium will move into the area C .

## Question 12

Question 12 was answered correctly by 47 per cent of the candidates who chose option C. 11 per cent chose option A, 8 per cent chose option B and 34 per cent chose option D. Costs are measured on the vertical axis. At output OQ the total costs are represented by QY, which is the same as OX. The fixed costs are shown as OW, leaving WX as the variable cost. The average variable cost is calculated by dividing the total variable cost by the output: WX/OQ.

## Question 15

Question 15 was answered correctly by 58 per cent of the candidates who chose option D. 3 per cent chose option A, 2 per cent chose option B and 37 per cent chose option C. The majority of candidates recognised that the firm would be in the public sector. As the firm is refining oil it would be classed as being in the secondary sector.

## Question 20

Question 20 was answered correctly by 52 per cent of the candidates who chose option B. 26 per cent chose option A, 4 per cent chose option $\mathbf{C}$ and 18 per cent chose option $\mathbf{D}$. Both options $\mathbf{A}$ and $\mathbf{D}$ are likely to cause rising prices as there is an insufficient supply of a product. More capital investment is needed (option $\mathbf{A}$ ) and there is a lack of skilled labour (option D) both of which would most likely occur because of excess demand. The resulting rising prices would not be deflation.

## ECONOMICS

## Paper 0455/22 <br> Structured Questions

## Key messages

The candidates who performed best on this paper:

- made good use of the source material in answering Question 1. The first question requires candidates to draw on and interpret the data in the source material
- understood that the stem to Questions 2-5 put the questions in context
- provided accurate answers to the (a) part of the optional questions
- recognised the need to both identify and explain points in the (b) part of the optional questions
- provided clear and relevant analysis in their answers to the (c) parts
- explored the (d) parts in sufficient depth, examining both sides and making use of relevant economic concepts. Their answers often defined terms at the start which helped to keep them focused on the specific questions.


## General comments

There was a wide range in the quality of scripts this session. There were some excellent scripts but also some scripts which produced vague and inaccurate answers. There were also a number of scripts which did not follow the instruction to select three optional questions. These scripts provided answers for all four optional questions. Answering an additional question reduces the time and effort that can be devoted to the three questions which are required.

A small proportion of candidates did not attempt all the required question parts. These candidates often omitted one or more (d) parts of the optional questions. This reduced the potential marks that could be gained by a noticeable amount. Of the majority of candidates that did answer the (d) parts, some candidates produced excellent, well thought-out, and clear answers. Others wrote answers that did examine some relevant aspects of the question parts but did not examine points in sufficient detail. A number of candidates just defined terms or identified points. These candidates did not support the points they made with relevant economic analysis.

On a number of question parts some responses showed confusion over economic terms and concepts, including a budget deficit, a current account deficit, and fiscal and monetary policy.

The clarity of candidates' handwriting was excellent. There were some good lines of reasoning shown, but it would have been beneficial for many candidates to write in shorter sentences. There were examples of sentences that were more than ten lines long.

## Comments on specific questions

## Section A

## Question 1

Most candidates did answer this question first. Some of those who answered it last appeared to rush their answers, particularly to Question 1(f), Question 1(g) and Question 1(h). Most candidates did, however, devote sufficient time to each of the question parts. The two question parts which candidates appeared to find most challenging were Question 1(c) and Question 1(f).
(a) Most candidates calculated the figure correctly. Some candidates, however, got the figure wrong. They should have realised that it was very unlikely that there would only be, for example, 17 people in Germany over the age of 65 .
(b) Not all candidates followed the instruction at the start of Question 1 to 'Refer to the source material in your answers'. As a result, they did not mention the indicators of living standards given in the source material.
(c) There were some good answers provided which explained one of the causes of globalisation mentioned in the source material. Some candidates, however, identified two causes rather than identifying one cause and explaining it, and others showed confusion about the nature of globalisation.
(d) Some candidates wrote about the increased ability of workers to undertake different jobs but did not link this to lower unemployment or higher output. Other candidates did explain clearly how an increase in the occupational mobility of unemployment can reduce unemployment and increase output.
(e) This was a generally well-answered question. Most candidates recognised that price had increased due to a rise in demand for German luxury cars in 2018. They were able to explain two reasons why demand had increased. There was good awareness shown of the nature of substitutes and complements. A relatively high proportion of candidates appeared to incorrectly think that the rise in the price of one product, by itself, causes demand-pull inflation. A small number of candidates showed confusion over the order of events in this case. These wrote about a higher price causing demand to fall rather than an increase in demand resulting in a rise in price.
(f) There was a considerable variation in the quality of the answers to this question. A number of candidates just described the information in Table 1.1 without providing any interpretation. For example, some candidates wrote that trade union membership was 18 million in 2013, it was 17.7 million in 2014, 17.6 million in 2015 and 17 million in 2016. In contrast, other candidates analysed the data and produced well thought-out answers. For example:

From 2013 to 2016 there was a fall in trade union membership. This meant that less people were paying to be part of a trade union. This can reduce strength as trade unions are stronger with more members since it is difficult to replace workers if their demands are not met. The percentage of the entire labour force that is part of a trade union is also declining, from $42.65 \%$ in 2013 to $39.26 \%$ in 2016.

However, the unemployment rate has also been reducing. This can indicate that trade unions have been more successful in protecting workers from redundancy and have provided them with job security. The rise in wages also indicates that trade representatives have been able to negotiate for higher wages.
(g) A key difference in candidates' responses to this question was between those which concentrated on the actual question and those which answered a different question. There were a number of clear and relevant answers including, for example:

An ageing labour force may decrease productivity. Older workers tend to be less occupationally mobile. This can reduce efficiency and firms' response to changes in demand, reducing output per hour.

Older workers are also likely to have more health problems and may work at a slower rate. Older workers may also be less familiar with modern technology and may not work efficiently with new capital.

However, older workers may be more efficient as they are more experienced. A lack of younger workers may actually improve productivity if it causes firms to invest in capital equipment that results in higher output per hour.

Other candidates, however, wrote not about an ageing labour force but about an ageing population. They examined the benefits of people living longer and the possible increased cost to the government in terms of pensions and provision of health care but did not examine the possible effects on productivity.

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(h) There were some excellent answers to this question. These drew on the information in the source material, expanded on it, and added to it. They also both explored the effect on government tax revenue and government expenditure. For example:

Immigration is the migration of people from foreign countries into the country. A high rate of immigration will increase the labour force of Germany as people usually migrate in search of jobs. A larger labour force will increase the GDP of the country leading to higher profits of firms, this may increase the corporation tax revenue earned by the government and may increase the budget surplus. The immigrants will also have to pay income tax, so the income tax revenue may also rise. Overall, since the population of the country will increase, total expenditure on goods and services will rise, so, tax revenue from indirect taxes like sales tax will also rise.

However, the population will not necessarily increase as any inward migration may be offset by emigration and so tax revenue may not rise. Plus, even if tax revenue rises, government spending may rise by more due to spending on education as immigrant families may have children. So, there may be no change in budget or even a fall.

A number of candidates, however, confused a budget deficit with a current account surplus. This was surprising as the source material defined a budget surplus. Some candidates wrote that immigration would not have any effect on tax revenue as immigrants would send their earnings to their relatives in other countries. Such a view ignores the fact that earnings would be taxed in the country and that some of the earnings would be spent in the country and would be subject to indirect taxation.

## Section B

## Question 2

The strongest performance on this question was on Question 2(c) where a large proportion of candidates showed good analytical skills.
(a) Most candidates were able to provide a relevant definition, but some candidates' answers lacked precision. A number defined economic growth as an increase in GDP, whereas an increase in real GDP is a stronger definition. This is because it makes clear that the country's output has increased and not just the monetary value of the country's output.
(b) Opportunity cost is an important concept in economics and most candidates showed a good understanding of the concept. A number related opportunity cost to India exporting rice instead of textiles. Some candidates misinterpreted the stem and wrote about the government being able to spend on education if it did not export textiles. A small number of candidates thought that opportunity cost is the decision to choose, rather than to sacrifice, the second option.
(c) Some candidates just described different forms of government spending, but a number produced strong answers with good links between government spending and higher output. There were some particularly strong answers which explored how higher government spending on education and subsidies for firms could raise output. For example:

Governments should spend more on education. This is a supply-side policy which will increase the skills and qualifications of the labour force. With more productivity, GDP will increase. The government could also subsidise firms. This will reduce their costs, lower their prices and make them more internationally competitive. So, there will be more exports which will also increase output.
(d) There were some excellent answers to this question. Many of these examined how expansionary fiscal and monetary policy measures might reduce unemployment but might also cause demandpull inflation. On the other side, they explored how supply-side policy measures could enable unemployment to be reduced without causing inflation. They also often mentioned how the level of economic activity could influence the outcome. For example:

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Inflation is a general, persistent rise in the price level over a time period. Unemployment is that part of the labour force that is willing to work but unable to find a job.

A cut in income tax may be used to stimulate the economy. This will increase disposable income. With higher incomes, workers will spend more. This will lead to higher total demand and so may cause demand-pull inflation, if total demand rises faster than total supply. The higher demand may also cause firms to take on more workers, wage rates may increase which will increase costs of production which will cause cost-push inflation.

However, the government could provide training. This would increase the skills of the labour force and thus improve productivity. Higher productivity may encourage firms to take on more workers and prevent costs of production increasing, Furthermore, government could provide firms with subsidises. This would enable them to keep the price of goods the same as profit margins increased. Also, government could lose corporate tax which will lead to firms receiving higher profit after taxes and could encourage them to expand and take on more workers.

Other candidates produced relevant answers but ones which did not examine the question in sufficient depth to achieve the highest level of response. These answers skipped stages in how changes in policy measures could affect unemployment and inflation. A small proportion of candidates produced one-sided answers.

Some candidates approached the question by stating that a government is more likely to be successful in reducing unemployment without causing inflation if it uses two policy measures, one to reduce unemployment and one to control inflation. Answers based on such an approach also varied in depth.

## Question 3

There was a wide spread of performance on the parts to this question. Some candidates answered the parts in rather general terms and did not make sufficient use of economics, particularly in Question 3(d).
(a) Most candidates were able to identify a relevant difference between land and labour. The two most common differences identified were that land is a natural resource while labour is a human resource, and land is paid rent while labour is paid wages. However, some did not identify a difference and some confused land with capital.
(b) The two main reasons explained were the product having no substitutes, and the product being a necessity. Some candidates showed confusion over the nature of inelastic demand and wrote about the reasons why demand for a product may be price-elastic.
(c) A relatively high proportion of candidates identified relevant reasons why households in another country borrow, but did not analyse them. Those that did tended to be strongest on how differences in the rate of interest, confidence, availability of financial institutions and income levels could affect borrowing. For example:

If a country has confidence about its future, they will borrow. If people have confidence that they will get better paid jobs, they will think they will be able to pay the interest. Also, if the country's rate of interest falls, it will be easier for people to make the interest payments. If a country has greater availability of lenders, it is likely that people will find the loans that suit them and that are easy to get.
(d) Most candidates were able to state that more people cycling would improve health and reduce pollution, but it would increase government spending. The stronger answers applied economic theory and concepts to explore these and other points in some depth. Candidates made good use of, for instance, merit goods, external benefits, productivity, structural unemployment, and opportunity cost. An example of a strong answer was:

Encouraging more people to cycle can reduce external costs such as pollution levels and traffic congestion. It can lead to a cleaner, less noisy environment. This can increase the economy's economic and social welfare. Cycling will also reduce the use and risk of depletion of resources, such as oil, that are used with car transport. This leads to sustainable development.

Cycling can also be a form of physical exercise which will lead to a more healthy and fit population. This can increase productivity of the labour force and reduce expenditure on healthcare. This tax revenue can be used to improve people's living standards.

However, expenditure on things like parking areas and leisure cycle parks as a means of encouraging cycling can lead to an opportunity cost as the government could have used the tax revenue on things such as education. Also, if consumers in a country are used to using other vehicles, demand for cars may be inelastic and cycling may not be seen as a substitute. As a result, despite the government's expenditure, people will not buy cycles. This could also be a waste of the government's spending. If they do buy more cycles, they may buy them from other countries. This will increase imports and may result in a current account deficit. If people buy fewer cars, some car workers may become unemployed.

## Question 4

There were some particularly good answers to Question 4(d) where a number of candidates showed a good awareness of how an increase in government subsidies could affect a deficit on the current account of the balance of payments.
(a) Some candidates gave rather vague answers. A number of other candidates wrote about the reasons for taxation which was the focus of Question 4(b).
(b) This was generally well-answered. The two main reasons explained were to discourage consumption and to raise revenue. Only a few candidates identified discouraging imports as a reason and most of those that did so, did not explain how this might improve the current account of the balance of payments.
(c) There were some strong answers to this question. Some of these were relatively brief but they provided clear and relevant links between, most frequently, an increase in the rate of interest and a cut in the money supply on increases in the price level. For example:

The central bank could adopt a contractionary monetary policy which involves increasing interest rates and cutting the money supply. A rise in the interest rate on loans could reduce borrowing. It will act as a disincentive to spend and an incentive to save. This will reduce total demand and correct demand-pull inflation. A reduction in the money supply will also prevent a rapid increase in spending which can lower price rises.

A relatively high proportion of candidates, however, seemed to think that the central bank implements fiscal policy. A number of others also showed confusion over the likely effect of changes in the rate of interest on consumer expenditure and how increases in total demand are likely to influence the price level.
(d) Most of the strongest answers considered the likely effects of government subsidies on both exports and imports. There were some good comments on international competitiveness linked to both price and quality, the price elasticity of demand for exports and imports, and how other governments might respond. For example:

Subsidies are sums of money paid to firms by the government to increase supply. A subsidy could improve the current account position as it can decrease the costs of production of the firms and help them to become more productive. These decreased costs could be passed on to consumers as lower prices, so demand for them increases as they become more affordable. They may become cheaper than products from other countries, so people will be more willing to buy them. A subsidy can also increase investment in firms in the forms of expansion, employment, and training given to employees. Training can give employees the skill required to produce the product with

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good quality. Demand for exports will increase due to their better quality, increasing export revenue. Machinery could also be bought using a subsidy which can increase productivity and decrease costs of production, and so, exports become cheaper and revenue rises. With cheaper and better quality home-produced products, imports can also fall. This will reduce a current account deficit.

However, the subsidy may not be passed down as lower prices to the consumers and firms may keep the money rather than use it to improve quality. A failure such as this will not improve the current account position. If the imports also get subsidised along with exports the balance of payments won't improve. If the country receiving the exports increases trade barriers such as tariffs, then the demand for exports will fall causing the deficit to fall. If the government subsidises firms the price of exports could reduce but if there is inflation then the exports will still be costly and the deficit will remain.

Some candidates, however, jumped stages. For instance, some wrote that government subsidies would lower the price of exports which would increase exports. They did not explain why subsidies could lower price or why lower prices would result in more exports.

A number of candidates considered only why an increase in government subsidies will reduce a deficit on the current account of the balance of payments but did not examine why they might not.

## Question 5

Most candidates found Question 5(a) and Question 5(c) relatively straightforward, although the quality of answers to Question 5(c) varied. There were some good answers to Question 5(d) but there were also some brief answers which showed confusion about their understanding of monopolies, and others which did not concentrate on costs of production.
(a) This question was answered well with only a small proportion of candidates not recognising the nature of a mixed economy.
(b) There was a mixed range of responses to this question. Some candidates were able to explain accurately the difference between a point inside a production possibility curve (PPC) and a point outside a production possibility curve. However, other candidates wrote about the difference between a point inside a PPC and a point on the PPC. Other candidates showed confusion, mentioning that a point outside a PPC represents an increase in output with existing resources producing more.
(c) Most candidates were able to identify a number of reasons why an actor may decide to become a teacher. What distinguished the quality of the answers to this question was whether candidates also analysed the reasons given. An example of a good answer was:

It could be due to a rise in pay following an increase in demand for teachers, resulting in a wage rise. The non-wage benefits of the teaching profession, including long holidays may be greater than those of an actor. Having more leisure time can improve people's health and let them follow hobbies. The qualifications required to become a teacher may fall and if job opportunities for actors are declining, this may encourage actors to become teachers.
(d) Some candidates concentrated on why monopolies may or may not charge high prices rather than on whether or not they will have low costs of production. A number of those that did concentrate on the question asked managed to produce strong answers. These often explored not only the economies and diseconomies of scale that a monopoly might experience, but also the influence of the lack of competitive pressure to keep costs low. There were a number of other interesting points made by candidates, including how keeping costs low could be used as a barrier to entry. An example of a good answer was:

Monopoly is a market where only one firm has $100 \%$ market share as they dominate the market and are the price makers. Monopoly firms, having 100\% market share, are usually large firms that can benefit from economies of scale i.e. lower long run average costs. As large firms they can afford the latest technology and automation which will reduce unit costs and increase the quality of goods. This is known as technological economies of scale. The large firms may also be able to
obtain loans easily and at a lower interest rate because banks find them very reliable, this is financial economies of scale. The monopoly firm will be able to employ specialist staff and managers that will improve efficiency and reduce costs. The monopoly firm may also take benefit of bulk buying economies of scale as they will be buying raw materials in bulk and the suppliers may give discounts.

However, the monopoly firm may also experience diseconomies of scale. If the monopoly firm is too large, managers may not be able to control the firm. Poor control may lead to errors, leading to higher costs. Workers may feel demotivated without day-to-day contact with managers, leading to more absenteeism and labour turnover, increasing costs of production. Being a monopoly, the firm may have no competition so they become complacent and inefficient, leading to higher costs of production. Also, the monopoly may be in a niche market, the sales are not very high so they may not benefit from lower average costs. Thus, if the demand for the good sold is low, it may not be possible for the monopoly to take advantage of economies of scale.

