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ECONOMICS

Paper 0455/11
Multiple Choice 11

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

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

4831 candidates sat this paper. The mean mark was 19.220.1 which was just slightly lower than the mean of 20.1 in June 2022.

The questions for which most candidates selected the correct answer were **2**, **3**, **17**, **19** and **25**. These questions were answered correctly by 75 per cent or more of the candidates. They covered different parts of the syllabus and were set to test different skills.

The questions for which the fewest candidates selected the correct answer were **5**, **9**, **15**, **16** and **18**. These questions were answered correctly by fewer than 50% of the candidates.

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Comments on specific questions

Question 5

Question 5 was answered correctly by 44 per cent of the candidates who chose option **C**. 11 per cent chose option **A**, 14 per cent chose option **B** and 31 per cent chose option **D**. Those candidates who chose option **D** confused a movement along a demand curve with a shift of demand. When the demand curve shifts, it is referred to as an increase in demand. A movement along a demand curve is referred to as an extension of demand.

Question 9

Question 9 was answered correctly by 39 per cent of the candidates who chose option **C**. 10 per cent chose option **A**, 8 per cent chose option **B** and 43 per cent chose option **D**. An increase in consumers' incomes would cause an increase in demand and this would result in an outward shift of the demand curve and a movement along the supply curve (option **C**). An increase in farm workers' wages (option **D**) would cause an increase in the costs of production and result in a shift of the supply curve, not a movement along the supply curve.

Question 15

Question 15 was answered correctly by 35 per cent of the candidates who chose option **A**. 29 per cent chose option **B**, 23 per cent chose option **C** and 13 per cent chose option **D**. This question showed a total cost curve. At 10 units of output the total cost was shown as $50. At zero units of output there was still a cost of $10 so this must represent the fixed cost. Variable cost is the total cost minus the fixed cost, so the total variable cost is $40. For each of the 10 units produced the average variable cost would, therefore, be $4 (option **A**). Option **B** was the average total cost and option **C** was the total variable cost.

Question 16

Question 16 was answered correctly by 48 per cent of the candidates who chose option **B**. 13 per cent chose option **A**, 15 per cent chose option **C** and 24 per cent chose option **D**. This question gave a table of factors of production and a level of output. Each of the factors of production doubled. This must, therefore, relate to the long run as all the factors have changed. The output, however, did not double which represents diseconomies of scale.

Question 18

Question 18 was answered correctly by 47 per cent of the candidates who chose option **B**. 20 per cent chose option **A**, 14 per cent chose option **C** and 19 per cent chose option **D**. The question asked which pair of monetary policy measures would be likely to increase employment. Candidates had to distinguish monetary policy measures from fiscal policy measures. Only option **B** has two examples of monetary policy. Those candidates who did not chose option **B** may well have omitted to notice that the question referred only to monetary policy.

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Paper 0455/12
Multiple Choice 12

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

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

17,146 candidates sat this paper. The mean mark was 20.8 which was practically the same as the mean mark of 20.2 in 2022 and identical to the mean in 2021.

The questions for which most candidates selected the correct answer were **1**, **3**, **4**, **12**, **13**, **15**, **20**, **23** and **27**. These questions were answered correctly by 80 per cent or more of the candidates. They covered different parts of the syllabus and were set to test different skills.

There were only two questions where fewer than 50 per cent of the candidates chose the correct answer. These were **Questions 17** and **30**.

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Comments on specific questions

Question 17

Question 17 was answered correctly by 33 per cent of the candidates who chose option **C**. 8 per cent chose option **A**, 23 per cent chose option **B** and 36 per cent chose option **D**. The question asked about a government policy of increasing indirect taxes while leaving direct taxes unchanged. Increasing indirect taxes would result in increased revenue for the government and help to reduce any budget deficit (option **C**). More candidates chose option **D** than option **C**. Increasing indirect taxes would be likely to cause price rises which would not reduce the rate of inflation.

Question 30

Question 30 was answered correctly by 41 per cent of the candidates who chose option **A**. 30 per cent chose option **B**, 12 chose option **C** and 17 per cent chose option **D**. The question asked what policy would improve a deficit on the balance of payments. Changes in import quotas sometimes cause confusion. Reducing a quota means that fewer goods or services would be allowed into the country. This would decrease the expenditure on imports and thus help to reduce any deficit on the balance of payments.

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Paper 0455/13
Multiple Choice 13

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

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

141 candidates sat this paper. The mean mark was 20.1 which is slightly higher than the mean of 19.8 in June 2022 but almost identical to the mean of 20.3 in June 2021.

The questions for which most candidates selected the correct answer were **2**, **7**, **11**, **12**, **23** and **30**. 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.

There were only two questions that were answered by fewer than 40 per cent of the candidates. They were **Questions 14** and **17**.

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Comments on specific questions

Question 14

Question 14 was answered correctly by 34 per cent of the candidates who chose option **D**. 29 per cent chose option **A**, 18 per cent chose option **B** and 19 per cent chose option **C**. Two options refer to low levels of output. Firms would be encouraged to grow when there are internal economies of scale, so option **C** is not correct. They would not usually continue to grow but remain small when there are diseconomies of scale in their production process (option **D**).

Question 17

Question 17 was answered correctly by 26 per cent of the candidates who chose option **C**. 21 per cent chose option **A**, 18 per cent chose option **B** and 35 per cent chose option **D**. The question asked about increasing spending on public goods. Of the four examples mentioned, only one is a public good (option **C**). Consumers can be excluded from consuming education, health and railway travel by charging a price. The consumption of such goods by one group of people also means that they are not available for consumption by another group. They do not, therefore, fulfil the criteria of being non-excludable and non-rival.

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Paper 0455/21
Structured Questions

Key messages

It is important to remember that all the questions in ***Section A*** are written in such a way for candidates to draw upon the information in the source material to form the basis of their answer. For this particular exam, many candidates did not do this for **Questions 1f** and **1g** and therefore received low marks or, in some cases, no marks. The guidance before **Question 1** makes very clear that candidates should 'refer to the source material in [their] answers'. This is different guidance to ***Section B,*** where each question is introduced by stimulus material but where the answer may 'refer to this material and/or to other examples that you have studied'.

General comments

One of the major reasons why some candidates scored fewer marks than others is that while they correctly identified a relevant factor, they did not develop their answer and therefore didn't gain additional marks. For example, on **Question 5b** most candidates stated that a point inside a PPC meant there was an inefficient use of resources. However, they did not develop it by stating that this meant that output was lower than what was potentially achievable. A second example is **Question 1d** where many candidates did identify two influences in the source material on the price elasticity of supply of coal but then did not state what that influence would be e.g. making supply more elastic or more inelastic. Not making these development comments can have a significant impact on total marks and grade achieved.

Most candidates set out their answers well and in a logical manner which made it straightforward for the examiner to follow their written answers. However, a few candidates did jump about between questions. This is understandable if they are attempting to answer the questions which they think they know best. However, this can, and often does, lead to candidates missing out on answering a question or adding to an answer at the end of the answer booklet, in some cases, without stating which question they are answering.

Additionally, as examiners are required to mark all questions attempted by a candidate, candidates should not cross out work unless they are having a second attempt at their answer. Sometimes candidates cross out their answer to a whole question believing they will score more highly on a later question, but this is not always the case. Severe crossing out may prevent an examiner from being able to read what was written and could result in an incorrect mark being awarded for the original answer. Finally, some candidates write on every line without leaving a gap between questions. Given the size of the answer book, there is no need to do this. If gaps are left it makes it easier for the examiner to see where one answer ends and the next begins, especially where in some cases, a candidate forgets to number each question.

Comments on specific questions

Section A

Question 1

(a) Slightly fewer than half the candidates calculated the right answer. The unemployment rate is a percentage calculated by taking the total number unemployed (0.62 m) and dividing it by the total working population (14 m) and then multiplying by a hundred which gives 4 per cent. The most common error was to divide by the total population (25.8 m) giving an answer of 2.17 per cent. A few chose the right figures but gave wrong answers of 0.04 e.g. not multiplying the division by 100 or 4 million.

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(b) The source material contained three substitutes for coal, namely gas, offshore wind and solar panels. Nearly all candidates correctly identified at least two of these. Those that did not usually named other substitutes such as oil which were not named in the source material and therefore are not correct answers.

(c) Slightly fewer than half of candidates were able to name an economy of scale based on information in the source material. The three acceptable answers were managerial – based on reference to the employment of specialist workers; technical – based on employing advanced equipment and external – based on a skilled labour force. Quite a few candidates stated financial or purchasing economies of scale but there was no evidence in the source material to support this. Quite a few candidates were able to identify the feature e.g. specialist staff but could not name the relevant economy of scale. A few were simply too vague e.g. 'use of machineries for mining.'

(d) There were a limited number of correct answers in response to this question. The main reason for this was that the answers given related to elasticity of demand rather than supply e.g. 'Demand is a key factor in determining the elasticity of supply of coal.' Often, candidates were able to select storage and construction of a new mine as relevant influences affecting elasticity of supply, but then did not state that this made elasticity of supply inelastic.

(e) Most candidates were able to correctly draw a demand and supply diagram. However, only a few were able to add on a maximum price below the equilibrium price and show the surplus demand created e.g. the gap between the supply curve and the demand curve at this maximum price. In many cases, candidates shifted the supply curve or demand curve downwards creating a new but lower equilibrium price rather than a maximum price, which was incorrect.

(f) This question required candidates to use the data in Table 1.1 which showed the output and consumption of the seven largest coal producing countries in the world in 2020. However, few did make use of this date and of those who did, very few identified that the two largest coal producers, China and India, actually consumed more then they produced. A few simply used data from the table without analysing it, e.g. 'from the evidence we can see that China has an output of 3640 and a consumption of 4215' which does not address the question. In previous exams, candidates have been good at looking at the data and identifying the relationship, so it is unclear why so many wrote an answer without any reference to any country in the table. These answers were less successful as they did not identify a relationship e.g. why large coal producing countries were likely to export coal. A few missed the point that all the countries in the table were large producers and only looked at India and China since they were the largest in the table.

(g) There were some good answers to this question, with many candidates covering both reasons why an increase in the coal industry would benefit the Australian economy and why it might not. Common reasons why it would include providing employment, increasing exports, causing economic growth and providing tax revenue to the Australian government. There were fewer reasons given as to why it might not benefit. The most common given where it would create pollution and damage people's health or the environment and that world demand was moving away from coal to renewables, so demand would fall in the long run. Less successful answers often were one-sided or only covered several factors without development.

(h) This question proved challenging for candidates, as many simply looked at the impact of the expansion of the coal industry on the Australian economy, overlooking all of the information on the Australian economy in the fact file. For example: 'Australia is likely to have a budget deficit in 2026 because of the decline in demand for coal.' The expectation was that as the question included reference to 2026, candidates would use the information contained in the fact file. This was not often the case. Strong answers covered why the Australian government might or might not have a budget deficit. Common correct answers picked up on higher unemployment and population growth as factors likely to lead to a budget deficit and a few also pointed out that the budget was already in deficit in 2026. Equally, the fact that GDP was forecasted to rise along with a rise in the size of the labour force suggested lower government expenditure and more taxpayers. A few candidates seemed unclear about what a budget deficit is and so their answers tended to relate to a balance of payments deficit instead.

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Section B

Question 2

(a) Most candidates knew at least one function, usually medium of exchange or measure of value. Often there were errors in the wording of the term e.g. 'means of exchange' or candidates could only give a description e.g. 'money is used to pay for our goods and services.' A few candidates identified characteristics rather than functions e.g. it was portable, or they gave a function and a characteristic.

(b) This was a well answered question with most candidates explaining that improved education would result in less demand for cigarettes and more demand for fresh fruit. The reason given by many candidates was that people would be able to identify that cigarettes were demerit goods and bad for your health whereas fresh fruits were merit goods which are good for your health. Those that did not get full marks often did not state that demand would rise for cigarettes.

(c) There were some strong answers to this question which identified what had caused an increase in tax revenue e.g. rise in employment, higher income, more spending by consumers, greater profits by firms and increased imports and then linked these changes to the relevant tax e.g. income tax, sales tax, corporation tax and tariffs. Many answers showed a chain of reasoning. Less successful responses tended to limit their answer to the government increasing tax rates or simply repeated higher tax revenue without naming any taxes. A few candidates misunderstood the question and wrote about the consequences of an increase in taxes rather than the cause of it e.g. 'An increase in government tax revenue is likely to lead to an increase in spending e.g. on education and healthcare.'

(d) Unemployment benefits were understood by most candidates. Most were able to explain how they could be used to reduce poverty for those receiving it as it enabled them to buy basic necessities. It was good to see that many answers distinguished between relative and absolute poverty. Some less successful candidates misinterpreted the question and wrote about the impact of higher unemployment. Strong answers explained that the opportunity cost of increasing benefits was that there was less money for the government to spend on education and healthcare and that if total government expenditure rose it could lead to demand-pull inflation which would decrease the value of the benefits. Many candidates also made the point that it was only a short-term solution and that many unemployed might not spend their money wisely. A few candidates seemed to not understand that the size of such benefits was small and wrote about it being enough money to set up their own business or pay for the education of their children.

Question 3

(a) Most candidates were able to identify two valid reasons why death rates might vary between countries. Common reasons were the level of healthcare, standard of living, conflict and war. A common error was to state the size of the population, but as death rate is calculated as per 1,000 of the population this would make no difference to the death rate, although the average age of the population would.

(b) Many answers included at least one cause of an increase in the size of a country's labour force. Common causes included a higher birth rate, immigration of workers, a rise in the retirement age or a fall in the school leaving age. Less successful answers included those that stated a cause but did not give an explanation e.g. that the rise in birth rate would only increase the labour force in the long run. The least successful answers were those that stated a cause that would not affect the size of the labour force. For example, people getting a job who were previously unemployed, as the definition of the labour force already includes those seeking a job. These candidates confused labour force with those in employment. Another example of an error was 'An increase in education provision will improve their skills and make it more likely that they can get a job.'

(c) Most responses discussed how an increase in productivity increased output which led to greater exports. Relatively few discussed in detail why the extra output led to higher exports e.g. better quality or lower price or why it might also lead to lower imports. A small number confused the current account of the balance of payments with government budget balance and wrote about the impact on tax revenue.

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(d) An understanding of inflation was clearly shown in many of the answers given. Strong answers explained the main causes of inflation e.g. total demand was exceeding total supply causing demand-pull inflation or higher costs causing cost-push inflation. These strong answers also explained that government contractionary fiscal and monetary measures could cause low inflation. However, many candidates were unable to explain why countries might have different rates of inflation. Some wrote about changes in exchange rates affecting prices within a country and the characteristics of high or low inflation, but not what caused it.

Question 4

(a) Nearly all candidates were able to identify at least one factor influencing which country a person would decide to work in. Common influences included family ties, job opportunities, wages and living standards. A few candidates gave answers that were not relevant or were simply too vague e.g. 'The level of challenges' or 'they provide merit goods and public goods', possibly because these two terms formed the basis of the next question.

(b) Nearly all candidates were able to explain that a merit good was beneficial and gave a correct example e.g. education. However, only a few were able to explain a public good. Many described it simply as a good provided by the government and gave an example of a public service. Few mentioned that it was non-rival or non-excludable good which private sectors would not provide and only a government would fund. However, quite a few were able to give an example, e.g. 'defence' and 'streetlighting'. Other responses were more confused and described free goods, or having written about a merit good then went on to explain what a demerit good was. This was possibly because they had written about merit and demerit goods in their answer to **Question 2b**.

(c) This question was answered well. These answers mainly focused on government spending on education and healthcare, explaining how this would increase life expectancy e.g. spending on healthcare would lead to more hospitals, more availability of medicines and greater accessibility to trained staff. Other acceptable answers included: better sanitation and water supply, better welfare support for those living in poverty or pensioners and improvements in infrastructure e.g. better roads reducing deaths from road traffic accidents.

(d) Most candidates understood what was meant by a country's foreign exchange rate, but a sizeable minority did not. Even where they did understand, quite a few candidates gave an incorrect explanation of the impact of a rise in the foreign exchange rate. They stated that the result would be that exports would be cheaper and imports more expensive and then described the consequences of that, which did not answer the question. However, a rise in the foreign exchange rate would lead to exports becoming more expensive and unless exports were inelastic in demand, export revenue would fall. Candidates tended to do better in explaining that consumers would benefit from lower prices for consumer goods and that industry would benefit from cheaper raw materials. More successful candidates also pointed out that it could lead to lower inflation and domestic firms losing sales to cheaper imports.

Question 5

(a) Generally, candidates correctly identified at least one reason why rich households spend more than the average household. The most common correct answer was higher income, wealth or finding it easier to borrow. Those that did not gain a second mark often missed out because of the imprecision of their statements. For example, stating that rich households purchase more luxury items, without adding the point that luxuries are more expensive.

(b) Many candidates found this question challenging. The requirement was that for the point inside the PPC the response needed to explain the point was inefficient or that resources were wasted, and output was lower than potentially achievable. For the point on the PPC the response needed to explain the point was efficient or that resources fully employed with output is at its maximum. Many candidates explained the inefficiency/efficiency in various ways without also referencing the relative output achieved. Less successful candidates offered some facts about the PPC and attempted to draw examples with little success at the bottom end. Diagrams were often drawn, and although often accurate they were not relevant to the question being asked. Typically, less successful answers stated that 'A production point within a PPC means that there is a shortage of natural resources.'

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(c) Intuitively, many candidates were able to access marks on this item. Many either stated or explained how the skill set of the employee would be affected over time and to their detriment. Stronger candidates recognised that the worker's qualifications would become outdated and there would be some expense in retraining them that potential employers would seek to avoid. A pleasing number recognised the effect on the workers' mental health and wellbeing and its impact on their motivation to find work. Successful candidates also considered the wider economic environment and the chance of recession affecting the demand for labour as well as the worker's age. Less successful candidates tended to focus too heavily on the idea of the lost skills and attempted to use the same point several ways to add value to their answer. Such an approach did not score highly.

(d) This question required a focus on whether or not a government should encourage firms to merge. Whilst the vast majority were able to address the issues around merger with some degree of success, the wider element of government was not understood by most. Strong answers discussed the advantages of merger from the point of view of the firms involved with respect to economies of scale, efficiency and greater profit. The very best responses recognised the potential for greater international competitiveness and improvements in the current account along with increased tax revenue for the government. More successful answers avoided simple reverse reasoning in their evaluative content and were able to recognise the difficulties inherent in fewer firms, reduced competition and the possibility of monopoly. The most successful answers were able to link the consequences of merger to a potential increase in prices and reduced employment. Less successful candidates focused on stating types of merger that could take place, e.g. horizontal or vertical. Such answers also tended to assert a simplistic impact on employment and output and prices (either up or down in each case) as a result of the merger activity, but crucially without a clear explanation. A few candidates spent too long explaining various economies and diseconomies of scale without enough link to the context of the actual question asked, which was about why a government would encourage a merger.

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Paper 0455/22
Structured Questions

Key messages

Candidates should be advised to:

- Pay careful attention to what questions are asking. It is important that candidates answer the specific questions set.
- Recognise that productivity does not have the same meaning as production. Most PE reports mention this but candidates continue to write productivity when they mean production.
- Recognise the difference between a budget deficit and a current account deficit.
- Answer the **(d)** optional questions in sufficient depth, using relevant economics. A number of candidates in this and previous sessions wrote in very general terms and did not make use of economic concepts and theory.

General comments

There were some excellent scripts. These applied relevant economics to all the question parts and made good use of the time. There were few unanswered question parts. However, a small proportion of candidates answered all four of the optional questions, providing relevant links between economic causes and consequences and the sequence of events. This session, some candidates found the **(b)** parts rather challenging. It is important for candidates to think through their answers before writing them.

There was a mixed performance on the **(d)** parts. Level 3 answers considered both sides of the question providing depth of analysis on at least one side. Level 2 answers were usually two-sided but with less depth. Level 1 answers just stated some relevant points but did not explain or analyse them.

Comments on specific questions

Section A

Question 1

(a) Most candidates correctly calculated 35 per cent of 790,000 (Guyana's population size) although a small number of candidates gave 27,650 as their answer rather than 276,500. There were some other candidates who calculated 35 per cent of 1,100,000 (the optimum population size).

(b) This was well answered, with the majority of candidates correctly identifying the two relevant causes from the source material.

(c) The source material refers to real GDP but not all candidates recognised this as a measure of economic growth. Some candidates mentioned GDP per head, not recognising that economic growth occurs when the country's total output increases. A number of candidates also mentioned measures of unemployment and inflation.

(d) This was generally well answered. The two main reasons explained were increased government spending on education and improvements to rail travel. These changes were linked well with increased occupational and geographical mobility.

(e) When candidates are asked to 'draw a demand and supply diagram to show' they only have to draw the diagram. They do not have to explain it. Some candidates wasted time writing relatively

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long explanations of the diagram. It was surprising that some candidates who did well on other questions, confused the demand and supply curves. A number of candidates mislabelled the axes, and some did not clearly indicate the original and new equilibriums.

(f) To do well on this question, as on the other questions in this part, it was necessary to make use of the information in the source material. In the case of this question, the table provided evidence that could be used to analyse the relationship between GDP per head and internet access. There were some excellent answers which explained the expected relationship, provided supporting evidence by interpreting the data and identified an exception. Some candidates, however, just described the information in the table without, for example, recognising that Iceland had both the highest GDP per head and the highest percentage with internet access.

(g) There were many strong answers to this question. These focused on the direct impact that the discovery of oil might have on living standards in Guyana. An example of a strong answer:

The discovery of oil is likely to increase living standards in Guyana. This is because the government will gain tax revenue from oil and can spend some of this on education and healthcare which can benefit the population. The discovery of oil will also create some skilled jobs with high wages which will allow the Guyanese people to spend more on goods and services.

However, the discovery of oil may not increase living standards because the oil was discovered by a foreign MNC which may bring their profits back to their home country and may employ people from their own country. The oil production may also result in external costs including air pollution which can lead to harmful living standards.

A number of candidates, however, tried to turn the question into a different question and/or were too narrowly focused. For example, some candidates explained correctly that oil production could increase tax revenue and might result in higher government spending on education. They then just explored the possible advantages and disadvantages of higher government spending on education and ignored other possible effects of the discovery of oil.

(h) This was generally well answered. A relatively high proportion of candidates developed the information provided in the source material to explore the possible advantages and disadvantages of an increase in Guyana's population. An example of a strong answer:

An increase in the size of its population would benefit Guyana because it will increase the number of people in the labour force and consequently increase the productive capacity of the economy. A larger population would also mean that the government will earn more tax revenue which can be spent on services like education and healthcare. More people can increase consumer spending which can encourage firms to produce more and so result in economic growth.

However, a larger population may result in overpopulation. Guyana's population was below its optimum level but a large increase could take it above the optimum level. This would put a strain on the country's services like education and healthcare and could lead to a lot of natural resources being depleted. More housing would be needed. This means cutting down forests to build houses, creating environmental damage.

Section B

Question 2

(a) This was well answered by most candidates with the quality of services and the rate of interest paid and received being the most common influences identified.

(b) Some candidates wrote about why firms would like to receive higher prices rather than why a merger may result in higher prices. There were some good answers particularly in terms of how a merger can result in greater market power and how it may result in diseconomies of scale.

(c) The strongest answers here analysed how an increase in bank lending could increase economic growth, lower inflation, reduce unemployment and improve the current account balance. A number of candidates wasted time by exploring why an increase in bank lending may harm an economy. This was not required.

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(d) A few candidates confused a market economy with a mixed economy or a planned economy. Most candidates did write about a market economy but there was a wide spread of performance. Some candidates just stated points, some provided answers that were limited or reasonable on both sides. Others produced answers that were strong on one side and, at least, limited on the other side. An example of a Level 3 answer that was strong on both sides:

A market economy is where the private sector operates according to the price mechanism and there is little government intervention.

A market economy allocates resources to meet consumers' demand. The firms will want to produce what consumers are willing to pay for as they can earn profits from doing this. If demand for one good rises and another falls, the price of the first will increase and the price of the second will fall. The change in price will signal to firms that it is more profitable to produce the first good. Resources will be moved from making the first to making the second.

A market economy will ensure resources are used efficiently. Firms will earn higher profits by cutting costs. Reducing wastage lowers costs.

However, a market economy may not allocate resources in the best way. It will not make public goods as firms will not get paid for producing public goods as they cannot make people pay for them. Public goods can provide benefits for consumers.

In a market economy, demerit goods are over produced and merit goods are under produced. Firms may be able to earn high profits from demerit goods but the price consumers will pay will not cover the full costs of producing them. Less resources devoted to demerit goods would benefit society. Merit goods, like education and healthcare, have external benefits. Consumers do not take them into account. A higher output of merit goods would benefit society. A market economy will also not devote many resources to making goods for the poor.

Question 3

(a) The two most common objectives identified were profit maximisation and growth.

(b) Some candidates found this a difficult question. Some confusion was shown over the nature of land and a number of candidates wrote about causes of changes in the use of land. Many of the candidates who did well on this question, wrote about the discovery of new natural resources and the use of fertilisers.

(c) Most candidates recognised that investment could cause higher output, the creation of jobs and a fall in unemployment. The stronger answers explained in depth why unemployment may fall, the type of unemployment that may be affected and/or why unemployment may actually increase.

(d) Some candidates wrote about how a government could reduce unemployment. There were also some strong answers. These explained the harm that unemployment may cause to those who experience it, to firms and/or to the economy as well as reasons why a higher rate of unemployment may not be a problem and why it might even provide some advantages. An example of an L3 answer:

First, the government should prevent a rise in unemployment. A high unemployment shows that the country is not fully using its resources. The rise in unemployment may cause consumption to be lower as less people are receiving wages. The firms' profits may decrease as the consumption drops, so the firms are less likely to invest. The decrease in profit of firms and decrease in employment may cause government tax revenue to decrease. Government may have less money to correct market failure. There will be an increase in budget deficit. Also, the increased unemployment means the government have to pay more in unemployment benefit.

However, the government should not fix a rise in unemployment as unemployment occurs naturally. The rise in frictional unemployment is just a temporary change in unemployment. What's more, there may be a problem of opportunity cost. If the government increases its spending on education and subsidies in order to lower unemployment, it may have to give up on spending on e.g. defence.

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Moreover, the measure of lowering unemployment may conflict with other objectives. If government spending on training increases, the aggregate demand may increase which can cause demand-pull inflation. Government measures to lower unemployment may also not be effective as some, including training, require a long time.

Question 4

(a) Most candidates identified two relevant reasons why a government may set a national minimum wage. A few candidates, however, revealed some confusion over what a national minimum wage is.

(b) Some candidates showed a good awareness of the causes of an increase in the value of a country's floating foreign exchange rate. These candidates recognised how an appreciation could be caused by influences on the demand for and supply of the currency. There was some particularly strong explanation in terms of hot money flows. However, some candidates confused a rise in the foreign exchange rate with a fall in the foreign exchange rate.

(c) The analysis of the effect of an increase in the price of milk on the reasons caused by soft drinks producers was relatively straightforward. Most candidates recognised that milk and soft drinks may be substitutes, that demand for soft drinks may increase and, as a result, the revenue of soft drinks may increase. Most candidates also recognised that demand for milk would fall. However, strong analysis of the impact on the revenue of milk producers required use of the concept of price elasticity of demand.

(d) Some candidates did provide strong answers. These explored a range of influences including economies and diseconomies of scale, specialist markets and the financial support different size firms may gain from commercial banks and the government. Other candidates, however, wrote in very general terms, and did not recognise, for example, the difference between average and total cost. An example of a Level 1 answer, which was vague and which stated points but did not explain them:

Small firms are more likely to go out of business than large firms. Small firms are easier to manage than large firms. If small firms do something which is not correct, it may have less consequences than large firms.

Small firms are not more likely to go out of business than large firms. Small firms are not as developed as large firms. They have less experience than large firms.

In balance, it is difficult to decide whether or not small firms are more likely to go out of business than large firms. It depends on what the firms do and so on.

Question 5

(a) Most candidates recognised that saving is the opportunity cost of households spending their income. However, a number of candidates thought that the opportunity cost of Chinese firms exporting goods and services is importing goods and services rather than selling goods and services on the home market.

(b) In explaining the relative earnings of a particular group of workers, it is useful to consider the factors that influence the demand for and supply of the workers. In the case of this question, some candidates wrote that to become top sportspeople may take years of training. Not all, however, went on to relate this to low supply.

(c) This was generally well answered. Most candidates identified and analysed a number of reasons. These included improving the current account position, helping domestic firms, gaining tax revenue and stopping or reducing the import of demerit goods. There was good awareness shown of infant (sunrise) industries and declining (sunset) industries and a relatively high proportion of candidates revealed an understanding of dumping.

(d) A small proportion of candidates confused a deficit on the current account of the balance of payments with a budget deficit. A higher proportion produced rather vague answers. For example, some of these stated that exports would increase without explaining why they may increase. There were also some strong answers which explored a range of influences including higher imports

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arising from higher production and consumption and how economic growth may encourage investment which can result in an increase in price and quality competitiveness. An example of a Level 2 answer, which does provide some analysis but would have benefited from more depth e.g. explaining why consumers and firms may be more willing as well as more able to buy imports, why exports may increase, why economic growth may result in more MNCs and the type of income that may add to the credit items in the current account of the balance of payments:

On the one hand it will have a deficit on the current account. First, a country with higher economic growth rate will have more ability to import goods from other countries because they have more money. So outflow of spending will exceed inflow of income and there will be a deficit. Second, a country with high economic growth rate will have more ability to get some invisible services from other countries.

On the other hand, it will not have a deficit. First, economic growth may be because of more exports because AD = consumer expenditure + investment expenditure + government expenditure + export – imports. If exports increase, AD will increase as will real GDP. So there is economic growth. So, there may be a surplus rather than a deficit on the current account. Second, in a country with higher economic growth rate, there will be many MNCs. So the country will receive more income from MNCs in other countries.

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ECONOMICS

Paper 0455/23
Structured Questions

Key messages

There are two key messages to emerge from candidate responses in this examination: the importance of close inspection of each word in the questions and the need for balance in the overall content of answers to the questions on the paper.

If a candidate only looks at the topic of a question before answering there is the strong possibility that the meaning of the question will be missed. This was observed in answers to **Question 1d, Question 1e, Question 1g, Question 1h, Question 2b, Question 2c, Question 3d,** and **Question 4b**. These issues are covered in the comments to specific questions below, but two are highlighted here. In **Question 3d,** if the candidate does not read the question carefully, it is easy to miss that it focuses on firms only and not on consumers or on the economy in general; in **Question 4b** the key word is 'causes' but those who chose this topic often wrote about the consequences of a recession rather than the causes.

Some candidates ran out of time before they could give a full response to all of their chosen questions and some did not manage to complete all of the paper in the time allowed. In addition, there were a considerable number of candidates producing short answers to the optional discussion questions **(part d)** when longer ones would have benefited them. This was caused by too much attention being given to earlier questions, particularly very long answers given to **Question 1g** and **Question 1h**. Candidates ran out of time because they had written long discursive answers to these two questions and had not left enough time for the optional discussion questions. A good guide for time allocation is that approximately 45 minutes should be spent on **Question 1** and 90 minutes on the three optional questions because the marks are allocated in that proportion.

General comments

Errors in following the instructions of the question paper were less frequent than in recent examinations but there is still a small minority of candidates who answer all of the questions rather than choosing three questions from **Part B**, and there are others who only answer three in total rather than all of **Question 1** in **Part A** plus 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. Finally, conclusions can be relevant in a question if they add something to the discussion but conclusions that simply summarise by repeating what has already been said do not add anything to the answer.

Comments on specific questions

Section A

Question 1

(a) The majority of candidates were able to divide $195 billion by 5 million to obtain the correct answer of $39,000 as New Zealand's GDP per head. A minority, however, gave a range of extreme answers, including $3.90 and $39 billion, when a little more consideration would have indicated that an individual annual income of this size was unrealistic.

(b) This question was well answered and most candidates used the data to identify air pollution and damage to the environment as the external costs arising from the car and milk industries.

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(c) There was a clear distinction in answers to this question between those who had a good understanding of profits (revenue minus costs) and those who only had a vague awareness. To answer the question satisfactorily it was necessary to indicate that revenue had fallen due to falling sales, rather than falling production of milk.

(d) Good answers explained the plans to reduce the external costs to the environment as outlined in the question, rather than simply indicating the external costs themselves. One plan was to end imports of petrol-powered cars by 2032 by imposing an embargo but those answers, giving a reduction in environmental damage, had only explained the consequences, rather than explaining the plan itself.

(e) Answers to this demand and supply diagram question clearly differentiated between those whose answers combined thoroughness with accuracy and those where insufficient care had been taken. Comprehensive answers to these questions require four things: correct labelling of the axes, correct labelling of the curves, the new demand curve clearly shown, and the equilibriums indicated. There were many candidates however, whose economics was otherwise very good, who did not gain full marks because of carelessness in terms of labelling. Many candidates gave a thorough explanation of the diagram, amounting to a large number of words, but this was unnecessary and not required by the wording of the question, where the instruction was only to **draw** a demand and supply curve rather than explain it as well.

(f) The following is an answer to this question that is both thorough and precise:

'The general trend shows a positive relationship, countries with larger shares of the world's GDP (per cent) have larger percentage shares of world carbon dioxide emissions. For example, New Zealand has the smallest per cent share of world GDP and the smallest per cent share of world CO2 emissions. Thailand has the second smallest per cent share of world GDP and the second smallest per cent share of world carbon dioxide. The exception to this case is the United States ……'

This answer continues to provide some further relevant analysis but the points already made here are sufficient for maximum marks. The candidate has achieved this by concise use of the data provided in the source material. Less successful answers, however, tended to write (sometimes long) discursive answers that ignored the data provided in the source material. A number of candidates ignored this question altogether, when a simple attempt at interpreting the figures provided would have earned some reward in terms of marks.

(g) The key to a good answer to this question was to read it carefully and focus upon the macroeconomic aims indicated, rather than writing about 'green' issues in general. The major macroeconomic aims concern the current account of the balance of payments, economic growth, employment and inflation. An answer that used these four aims for its structure, discussing how the increased exports of 'clean and green products' is likely to improve the current account, increase growth and decrease unemployment, contrasting this with the potential for demand-pull inflation and unemployment in the 'non-green' industries, tended to be a successful response. Answers that simply discussed the pros and cons of 'greening', on the other hand, were much less successful because they lacked focus.

(h) As was the case for the previous question, candidates who looked closely at the wording of the question were the ones who tended to produce the most successful answers. Many candidates answered the question without consideration of the 'job losses' indicated in the question and instead examined the harmfulness of a change to a carbon-neutral economy in general. This led to answers that unnecessarily discussed unemployment as a cause of harm, when 'job losses' were given by the question. The most successful answers considered poverty, lost output and the consequences of lost taxes, contrasting these with the temporary nature of the frictional unemployment and the possibility that workers could be trained to find better-paid jobs in the longer term.

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Section B

Question 2

(a) There are a large number of costs that a firm can incur, e.g. fixed costs and variable costs, and most candidates were able to identify two of them. More imaginative candidates gave private costs and external costs as answers and these were perfectly acceptable.

(b) Most candidates were able to identify two roles of commercial banks for firms, notably lending money and storing money. There was a clear split, however, between those candidates who only identified the roles and those who explained them. For example: 'banks lend money to firms for investment purposes and store money as firms can earn interest on their deposits'. There were also some candidates who confused commercial banks with central banks and incorrectly identified their roles as printing money and overseeing monetary policy.

(c) Those candidates who had a clear understanding of the question tended to write more successful responses, whereas those who misinterpreted it were less successful. The focus of the question was the level of income of countries, but many candidates tended to write about differences in the incomes of individuals in countries. As a consequence, differences in tax rates that determine the distribution of income were not an appropriate answer to this question. Successful answers focused on the idea that national incomes are determined by national output and analysed the factors causing differences in output. The most popular approaches were to analyse differences in education, development (distribution of primary, secondary, and tertiary sectors), investment, and the availability of natural resources. It was also noticeable that some candidates successfully used appropriate examples from recent economic history e.g. wars and the tragic consequences of the earthquakes in Haiti.

(d) The following answer is a Level 2 response that discusses both sides of the economic argument, in this case, whether or not low tax rates benefit an economy:

'Low tax rates can be harmful to an economy because the government will lose tax revenue, (L1) *this affects the production of public goods such as street-lighting, education, healthcare etc.* (L2). *This could also result in a regressive tax where wealthier people pay less tax while poorer people pay a higher percentage from their income as tax. Lower taxes may decrease standards of living due to less investment in healthcare by the government, increasing death rates. Furthermore, low taxes can benefit an economy by increasing expenditure as people will have more money to purchase their needs and wants. This will also increase the population's standards of living, as they will purchase healthcare more. This also means more income so the levels of poverty would fall. May attract foreigners to migrate'.* (L2)

This is more than a simple attempt, but it is a limited answer on both sides and it also lacks depth. In particular, there is no distinction made between the different effects of low direct taxes and low indirect taxes. Therefore, it is a level two answer that has used economic concepts but not developed them very much. In addition, the sentence about regressive tax is not really appropriate in this context. The word 'furthermore' is confusing here and should be 'however' in order to indicate that the other side of the discussion is being addressed.

Question 3

(a) There are many challenges facing small firms and most candidates were able to identify two, such as not being able to take advantage of economies of scale and an inability to borrow large sums of money from banks.

(b) Candidates generally demonstrated a good understanding of the concept of opportunity costs in answers to this question. The best answers usually considered two of the factors of production, such as land and labour, and then explained how investing in new technology meant foregoing land for expansion or skilled labour for increased output.

(c) This question proved problematic for a number of candidates because they were distracted by the 'Chinese food' aspect of the question, sometimes confusing it with food imported from China. Many answers were of a general nature, rather than an analysis that used economic theory. The best answers were those that stuck to a simple structure of microeconomic theory and applied it successfully to Chinese food. Analysing the price of substitutes, level of income, and changing

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tastes were the most successful approaches here. If the price of pizza falls, the demand for Chinese food will fall, if income falls then it will also fall because Chinese restaurant food could be seen as a luxury, and if Chinese food falls out of fashion then the demand is likely to fall.

(d) The following answer is a Level 3 response that is a discussion examining both sides of the argument, with good use of different economic ideas:

'Competition may be harmful to a firm since firms may lower the price of a product, and those firms which are unable to lower their price are forced to close down. (L1) *Also, as the prices are lowered for competition, the total profit of the firm would decrease.* (L2) *Moreover, the raw material may be limited, therefore when competition takes place, other firms may consume more resources, so firms could only enjoy a fewer amount of resources. In addition, in order to compete with other firms workers are usually exploited, to produce more and better product. This may cause workers to exit the firm, so the firm may experience a labour shortage.*

However, competition may not be harmful to a firm since in order to compete the efficiency of the firm increases, this allows the consumers to be willing to consume from this firm. (L3). *Also, the productivity of the firm increases to maximise output and therefore lowering the price and compete with other firms. The quality of the products may also increase in order to attract customers. Moreover, skilled workers may decide to leave the competitor firms due to exploitation, and this firm may be able to hire the skilled workers and benefit the firm. Lastly, competition enables the firm to enjoy lower costs, since raw materials and labour are sufficient due to the size of the market, so a cheaper cost therefore can be enjoyed.'* (L3)

There are certainly parts of this response where improvements could be made but its strength, on both sides of the answer, is the range of economic concepts discussed. Many candidates did not go beyond the harm to profits in their answers, but this answer also covers the effects on raw materials and on the labour force.

Question 4

(a) In answers to this question, there was a clear distinction between those where emigration was well understood and those where only a vague awareness was apparent. In particular, there were candidates who confused immigration (entering a country) with emigration (leaving) and others who confused immigration with movements from one part of a country to another.

(b) This question proved difficult for those candidates who confused 'causes' with 'consequences' of a recession. There were candidates who gave high unemployment as an answer, when that is a consequence of a recession, and answers that gave a fall in GDP when that is the definition of a recession if it falls for two consecutive quarters (six months). There was also a considerable number of candidates who gave high inflation as the cause of a recession without much further explanation: demand-pull inflation may lead to a recession eventually because of cost pressures but it is not the immediate cause of a recession. In fact, the opposite is usually true – high inflation is a feature of a boom rather than of a recession. Consequently, the best answers were relatively rare and explained, for example, how falling (aggregate) total demand, high interest rates, and falling investment are causes of a recession.

(c) There were many possible ways for candidates to analyse measures that a government could use to attract workers to return to their home country and successful candidates used them to full advantage. The most popular approach was to examine financial incentives for workers, such as lower income taxes, higher NMW, and lower levels of inflation to reduce the cost of living. The main weakness in answers was a lack of depth: candidates identifying three measures but not explaining them or only analysing one or two measures in brief.

(d) The following answer is a Level 1 response that does not develop the ideas beyond a basic understanding of economic concepts. It is also one sided, with no discussion of why an economy might not benefit from its candidates studying abroad:

An economy is able to benefit from having candidates studying abroad because they might specialize on something with a better education experience (L1) *back to the country and there be able to teach new generations what they know* (L1). *Having candidates study abroad can also give them not only a better education but a new perspective of things that can help the country develop faster.*

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Question 5

(a) 'Government budget' was well understood by many candidates but there was also a substantial number of candidates who had only a vague idea of the definition. Good answers referred to both expenditure and revenue for governments, whilst the biggest weakness in other answers was to ignore either one or the other. The best answers also indicated that the budget is a plan or a forecast.

(b) It was rare to see an answer that comprehensively demonstrated a clear understanding of private and external benefits. There was frequently a confusion with social costs and benefits, and many candidates assumed that private benefits accrued to the private sector, with external benefits going to the public sector. The best answers were those that specified direct benefits to consumers or producers (private) and benefits to a third party (external). There were also some excellent examples of both private and external costs given as explanations, such as the private benefit to consumers who buy bicycles being the flexible transport it gives them, with the external benefit of cleaner air for all of the residents of that area.

(c) It was rare to see basic economic theory used in answers to this question, but this was the best approach to take. The small number of candidates who looked closely at the question understood that this was a 'demand and supply' question, in this case the demand and supply of labour. Demand for labour is derived from demand for the product, in this case education. Supply of labour is determined by many factors including skills, qualifications, and bargaining strength. This gave the potential for a clear structure in the answer but very few candidates used this successfully. Instead, the most popular approach was much more general, with less economic theory. In particular, candidates concentrated on government policy and the importance of teachers to the economy and society. Whilst this was a perfectly valid approach, it did not have the depth of analysis that could be achieved by using economic theory as a basis for analysis.

(d) The following answer is a Level 3 response to this question. It has a reasoned discussion that considers several economic ideas but it is not, however, a strong Level 3 response, because it is not fully developed in terms of economic analysis. The second part of the question is stronger than the first:

'Having a large population is beneficial for the economy because you have more workers (L1). *With large population there is a higher percentage of people who are willing and able to work, regardless of their skills, which means that the unemployment rate is low. By having more workers the productive capacity of the economy and of a variety of markets is likely to increase, leading to an increase in economic growth* (L2). *More people working means that wages are earned, which leads to an increase in consumer spending.*

Having a large population is not beneficial for the economy because competition for resources is likely to increase. This would happen because there is now more people in a specific area and there are scarce resources, meaning that people's unlimited wants will not be satisfied, as a result prices are likely to increase leading to a more intense competition for resources. In addition overcrowding is likely to occur, since there are now more people in the same place. This could lead to a higher or an increased gap in the incomes between the rich and the poor (redistribution of income) and a high unemployment rate. Due to competition for resources demand – pull inflation (L3) *is likely to occur, since demand for certain products is likely to lead to a shortage, given that demand exceeds supply. There could also be a large proportion of dependent population'.* (L3)

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