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# AS LEVEL ECONOMICS

7135/1 The Operation Of Markets And Market Failure Report on the Examination

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#### **General Comments**

There was an uneven split between the two context questions with approximately 25 per cent of students opting for Context 1 and 75 per cent opting for Context 2. Although there were some pleasing answers to Context 1, on average, students performed better on Context 2 than Context 1. This may well be that the context on alcohol and related 10 mark and 25 mark questions were seen by students as a more accessible option than the context on water.

The overall level of responses suggests that students still lack the precision required to precisely define key terms, more than 60 per cent of students did not achieve full marks in the definition questions. A definition is required rather than a detailed explanation of the term, with many students writing several sentences to acquire marks when much less often suffices. Many find the calculation questions difficult because they struggle to understand the context of the numbers and data involved. For the first calculation, many students just did not spot that it wanted the money saving per week and for four people. Only a third of students achieved full marks on this question. In question 28 omitting the minus sign for price elasticity of demand was a very basic error. Around a quarter of students achieved full marks on this question.

At least 15 per cent of the marks at AS level depend on a student's ability to demonstrate quantitative skills. When asked to perform a calculation, students would be well advised to show their working as part-marks were awarded for the correct method even if the final answer is incorrect.

Whilst many students are well prepared for the comparison and significant features questions, it is hoped that centres also spend time with students looking closely at ,and understanding, the whole range of features that might be present.

Many students would benefit from being provided with as many opportunities as possible to demonstrate a fuller analytical understanding of economics in a wide variety of real-world situations. This could be through discussion as well as by way of written responses to questions set by the teacher. Embedding logical chains of reasoning into the analysis, using the full economist's toolkit when referencing real world contexts is crucial.

Many students made extensive use of diagrams in their answers. However, some of these diagrams were not explicitly used or were inaccurate or not labelled correctly; students should be aware that credit is unlikely to be given for a poor diagram. Where appropriate, the use of suitable, fully labelled, diagrams should be encouraged. However, they should only include a diagram when it is relevant to the question and adds value to the response.

Selective use of the extracts should also be encouraged. The extracts are there to help the student respond to the questions and can be used to help support judgements. When answering the last part of each context, the quality of the evaluation is a key determinant of the mark awarded. Good quality evaluation requires that judgements are supported by sound analysis and/or evidence. The evidence used to support judgements may be qualitative or quantitative. Some evidence is included in the extracts, but it must be used appropriately. Combining evidence from different extracts is one way of strengthening the quality of evaluation. Sound, fully developed analysis should be an essential element of students' responses to the last two parts of each context question. In the last part, good analysis is the foundation for good evaluation; they go together. Some of the weaker answers to the last part of Context 1, used the extracts extensively but were weak because the underlying economic analysis was missing.

more able students students evaluated as they worked their way through their answers to the last part of the context questions but only the most able students provided a convincing, welldeveloped, supported conclusion. It is a difficult skill that students need to practise. The teacher could provide their students with a good answer to a question which has had the conclusion removed. Students could then be asked to write their own conclusion to help them develop the skill of producing a supported final judgement.

# Context 1: WATER

#### **Question 21**

Many students were unable to provide a full and precise definition of profit given both total cost and total revenue were required for a Level 3 response. Some students included either total cost or total revenue, but not both. Not including the direction was another reason why students failed to achieve a Level 3 response. Less able students, typically only achieving a Level 1 response suggested profit was what was left over after costs had been deducted and made no reference to total costs or total revenue. Writing about average and fixed costs or taxes often led to confused responses.

#### **Question 22**

Given the basic quantitative skill of multiplying four numbers together to calculate how much money would be saved by using a shower rather than a bath, many students were not able to achieve full marks on this question. Many students found this question challenging, but the mark scheme still rewarded an understanding of the process even if the answer was incorrect. Few students lost a mark for incorrect or missing units, especially when calculating the amount in pounds. When calculating the saving in pence, many did not include the unit of pence. Many responses incorrectly calculated how much would be saved per day, or per person, rather than per week for a family of four. Students who made this mistake were also more likely to omit the correct unit. Whilst it is important to show workings, it was sometimes difficult to follow how a student had come to a final answer given the number of calculations and with much of the answer crossed out. More able students showed clear and well organised process in their calculation.

# **Question 23**

The important principle for this question is that students need to identify and clearly state a significant point of comparison which must be supported by accurate use of the data. Clearly most students have been taught a technique for this question. This allowed many to achieve full marks by comparing the lowest (clearly in a 1-person household) average annual water usage with or without a meter and then comparing the highest (clearly in a 6-person household) average annual water usage annual water usage with or without a meter for their second point. Whilst this approach was rewarded, it was not quite the anticipated response. The essence of the question was to compare average annual water usage of households 'with' and 'without' a meter and the mark scheme provided lots of examples of how a student might approach this. As in previous years for this type of question, marks were lost due to the failure to use the correct units (cubic metres) and/or to state the number of people in a household. The mean score for this question was 1.76.

## Question 24

Many students scored full marks on this question. However, many lost marks due to a fundamental misunderstanding of how the minimum price works and/or errors when drawing the diagram. Most students placed the minimum price above the equilibrium price and labelled the axes, demand and supply curves and price quantity co-ordinates correctly. The mark scheme rewarded students who indicated excess demand on the diagram. This may have been achieved by writing 'excess demand' or by labelling co-ordinates for the new supply and demand at the new price. However, whilst fewer marks were lost by labelling the vertical axis 'Price level' rather that 'Price' and by labelling the horizontal axis 'QD or QS' rather than just 'Quantity' or 'Quantity demanded and supplied', many students lost marks by omitting one or two labels when drawing the diagram. Around 25 per cent of students scored full marks and around 25 per cent of students scored zero marks on this question.

#### **Question 25**

This question is marked using a level of response mark scheme that assesses knowledge and understanding, application and analysis. When awarding the mark, a judgement is made regarding the overall quality of the response.

Compared to the equivalent question about alcohol, responses to this question were much weaker, with the mean score just above 4 marks and in low Level 2. Less than 10 per cent of students achieved a Level 3 mark. Many students simply did not understand the economics of the water industry and even with extracts to inform and steer them, struggled to develop responses using economic terminology and concepts. The question encouraged students to explain how firms could compete to not only attract businesses but 'other customers' too, this opportunity was not seen in many responses.

Stronger students generally started their answers by contextualising the importance of water as a scarce resource, briefly explaining how the water industry works and the role of competition in the water industry. They went on to demonstrate an understanding of how water is priced and the opportunity this might provide to water companies to secure more customers. Good application was demonstrated by drawing on information provided in the extracts. For a second point many students used non-price competition, mostly improving the quality of water or the service provided, making tariffs clearer or dealing more swiftly with complaints, for example.

Many Level 2 responses took cues from the extract but did not adequately develop the analysis and/or failed to include reasonable application of economic principles or really made use of the data. Weaker responses did not really indicate how the water industry or water pricing really worked. This led to many weak, or at times, highly inappropriate suggestions as to how firms in the water industry would attract businesses or other customers. Many students who offered inappropriate or weak suggestions often then drifted away from the water industry context completely and went on to evaluate their suggestion which is not a skill that is required when answering this question.

It was not necessary to include a diagram to achieve full marks for this question, but students should appreciate that, where appropriate, the use of a diagram can be useful in supporting their analysis. Diagrams are an important part of an economist's toolkit, and it is up to the student to decide when and how they might be usefully employed.

#### Question 26

This question was significantly less well answered than question 32 with the mean score around 10 marks. There were few strong responses with around 50 per cent of students failing to access at least Level 3 and provide some economic rationale for whether all households should pay according to the amount of water they use.

Whilst many students tried to examine the case for and against paying for water based on usage, many did not fully understand the market for water that the extracts outlined, this left many students short of ideas, preventing robust economic analysis and ultimately evaluation in their response. Many students wrote generically about water, the water industry and the pricing of water which drifted from the heart of the question.

Whilst many students were able to recognise the importance of water as a basic human need with characteristics of a merit good. More able students developed this further and explained the potential external benefits of water and that water needed to be rationed as a vital scarce resource. Those that went on to discuss the efficiency versus equity issue were often well rewarded. The effect of pricing based on usage on lower income or vulnerable households provided students with a strong basis for analysis and evaluation. When this was backed up by explicit reference to the extracts, a student could score well. The strongest responses often included other responses such as introducing a maximum price or increasing competition, but few were able to analyse in depth the pros and cons of other responses plus who gains and who loses.

Extracts were used extensively and often quoted by many students but could have been used better by many more to support arguments and judgements. Many did not understand the extract material or the data well enough to use it effectively.

Diagrams were not used as much as they were in question 32, but students appeared to recognise that in this question the diagrams did not necessarily add a huge amount of value unless used effectively.

# Context 2: ALCOHOL

#### **Question 27**

Many students were able to communicate that income was money received or earned, often by workers or firms with 40 per cent achieving full marks on this question. Fewer recognised that income is a flow or received over a period of time, with 55 per cent of students scoring 2 marks. Strong answers referred to workers being paid a wage per week or per month for example. Most students successfully provided an example of a source of income which was enough to score at least 1 mark depending on how they included this source in their full definition. Some students defined disposable income whilst weaker students recognised that income was about money coming in but failed to identify the flow element or which economic agent were the recipients.

#### **Question 28**

Many students were able to calculate, to two decimal places, the price elasticity of demand for whisky. However, some made avoidable mistakes by, for example, not rounding correctly to two decimal places or by including an incorrect unit such as a %. In some cases, students were not able to remember the correct price elasticity of demand formula, often getting the percentage change in quantity demanded and percentage change in price the wrong way round. Where

students were not able to calculate the correct answer, they were at least rewarded for some process marks, as well as recognising the correct formula for price elasticity of demand.

## **Question 29**

This question posed few difficulties with full marks awarded to just over 60 per cent students for their answers to this question and a mean score of 3.2. As in previous years, students adopted a well drilled technique for this type of question with the most common response to highlight in the first point the highest affordability of alcohol index number, followed by the lowest affordability of alcohol index for the second point. Many students omitted 'index' as a unit of measurement - this must be quoted for each comparison. If students used the equivalent percentage change instead of an index number, this was perfectly acceptable. The mark scheme included many variations of response including significant features within the data such as the greatest increase or greatest decrease in the affordability of alcohol index.

#### Question 30

Around 62 per cent of students achieved full marks on this question. Most students recognised that the effects on the market for alcohol of raising the age for buying alcohol would shift the demand curve to the left. Most were able to accurately draw a demand and supply curve diagram showing the leftward shift in the demand curve with the correct axes, labels, and coordinates. Students answering this question made few basic errors, but when they did it was missing a label, axes, or co-ordinate. As in previous years some lost marks by labelling the vertical axis 'Price level' rather that 'Price' and by labelling the horizontal axis 'Quantity demanded' rather than just 'Quantity' or 'Quantity demanded and supplied'. As in previous years a small number of students shifted both the demand and supply curves.

#### Question 31

It is worth re-emphasising that this question and the equivalent question 25 are assessed using a level of response mark scheme. It is the overall quality of the response that determines the mark awarded.

Overall, there were some very strong responses to this question and with economic analysis not seen in question 25. On average students scored nearly 2.3 marks more on this question then the equivalent question in Context 1. More able students recognised that alcohol was a demerit good and created negative externalities. Students were then able to analyse the impact of imposing indirect taxes on alcohol and the impact this had on the price and quantity demanded of alcohol. In many cases responses made very effective use of the extracts.

Most students achieving Level 2 or higher used a demand and supply diagram to explain the likely effects. Shifting the supply curve to the left and establishing a new equilibrium allowed students to develop logical chains of reasoning explaining the effect on price and quantity of alcohol. Stronger students used price elasticity of demand to further their analysis or explained the effect of the tax on lower income groups. Most answers were clearly rooted in the case study with discussion clearly linked to the source material, but it was not uncommon to see students making no reference at all to alcohol. Quoting extensively from the extract material without really developing the discussion was not well rewarded.

Although diagrams were a feature of most responses, some are drawn without explicit reference to them in the analysis; many were poorly drawn and often poorly labelled. The consumer and producer burden of tax and the welfare loss in a market failure diagram were sometimes not as

well understood. Diagrams are an important part of an economist's toolkit, and it is up to the student to decide when and how they might be usefully employed.

#### **Question 32**

Although this question produced a wide range of responses, there were some very accomplished and thoughtful answers, with around 42 per cent of students achieving a Level 3 response.

The best answers started by setting the scene, highlighting the current situation in the UK and some of the current views and opinions held about alcohol and its negative impact on society. The typical response was for a student to discuss at length whether a minimum price for alcohol should be introduced in England and Northern Ireland or whether an alternative policy might be more effective given alcohol is considered a demerit good and creates negative externalities. Most students explained how the minimum price worked and analysed the effects on different stakeholders. This was often supported by a relevant diagram and quotes from the extracts identifying some of the stakeholders involved and the benefits generated by intervention and more action. Many drew a market failure as well as a minimum price diagram and scored well when they made effective use of both in their analysis and discussion. The most able students offered a view about whether the market for alcohol should be left alone because it is more efficient due to the market mechanism.

Many students explored the idea of government failure; however, many were vague on what this meant and typically suggested that if the minimum price or another policy had a limitation, that automatically constituted government failure. It would certainly be expected that if students explore government failure, they should recognise that the failure is deepened, or a new problem is created.

Weaker answers usually expressed a one-sided argument about whether a minimum price should be introduced and then had a weak paragraph or so on why it shouldn't intervene, often that it is very costly for government because they would have to buy up the excess supply of alcohol and then stockpile it. In weaker responses there were more errors when drawing market failure diagrams. Although the point about smuggling was reasonable, less able students often laboured this point.

Many answers shifted very quickly to alternative or existing policies rather than focusing on arguments for/against the minimum price, but students assessing the relative merits of the existing or alternative forms of government intervention; perhaps contrasting this with the benefits of a free market approach often evaluated well.

The judgement for this question seemed to be more straightforward than question 26 with most students deciding that the minimum price was an effective policy but should be combined with a suite of policies given the problems alcohol create in the UK. The application and use of the context was pleasing overall with multiple direct quotes being used. The mean score for this question was just over 14, more than 4 marks higher than for question B26.

#### Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the <u>Results Statistics</u> page of the AQA Website.