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Pearson Edexcel Level 3 GCE**Thursday 18 May 2023**

Morning (Time: 2 hours)

Paper
reference**9EC0/01****Economics A****Advanced****PAPER 1: Markets and Business Behaviour****You do not need any other materials.**

Total Marks

73**Instructions**

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- There are three sections in this question paper. Answer **all** questions from Section A and Section B. Answer **one** question from Section C.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 100.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Calculators may be used.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.

Turn over ►

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P 7 2 9 8 0 A 0 1 3 6

**Pearson**

SECTION A

Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

You are advised to spend 30 minutes on this section.

Use the data to support your answers where relevant.
You may annotate and include diagrams in your answers.

- 1 In a major reform of its command economy, the Cuban government will allow small private businesses to operate in most fields. Free market economists have long called for the role of small business to be expanded to help jump-start the economy and to create jobs.

(Source adapted from: <https://www.telegraph.co.uk/news/2021/02/07/cuba-allows-massive-expansion-private-businesses/>)

- (a) With reference to the information provided, explain **one** advantage of a free market economy.

09:05

(4) 3 Q01a

Free market economies allow individuals to choose their labour, such that individual workers can choose to specialise and train for a specific profession, rather than be assigned labour by government, i.e., "a student in the USA studying to be a doctor". This in theory leads to a more productive work-force, as workers are more motivated to work in an industry of their choice.



(b) Which **one** of the following economic thinkers supported the idea of a command economy?

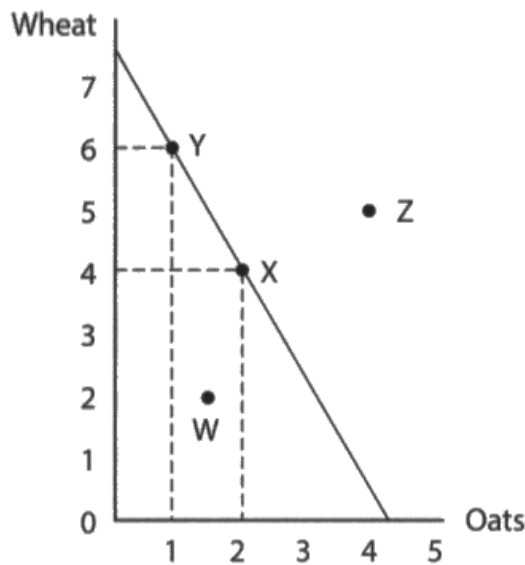
(1)1



- ☐ A Adam Smith
- ☒ B Friedrich Hayek
- ☒ C John Maynard Keynes
- ☒ D Karl Marx

(Total for Question 1 = 5 marks) **4**

2 The production possibility frontier shows last year's harvest for a UK farmer at point X.



(a) Calculate the opportunity cost of the decision by the farmer to harvest 6 units of wheat this year at point Y (movement from point X to point Y).

(2) 2 Q02a

$$X = 2 \times 4 = 8$$

$$Y = 6 \times 1 = 6$$

The opportunity ^{cost} is 1 unit of oats.

(b) Explain the impact on efficiency of producing at point W in the following year.

(2) 2 Q02b

All factors of production are being under-utilised, such that the UK farmer is not operating, in theory, on his maximum productive potential, there is spare capacity and spare resources not fully deployed.



(c) Which **one** of the following would be most likely to help the farmer reach point Z?

An increase in

(1)¹

- ☐ A investment in milk production machinery
- ☒ B investment in modern farming technology
- ☐ C the demand for wheat
- ☐ D the price of oats

(Total for Question 2 = 5 marks)

5

3 A luxury brownie baker is faced with falling demand as incomes fall.

(a) The likely income elasticity of demand for a luxury good is:

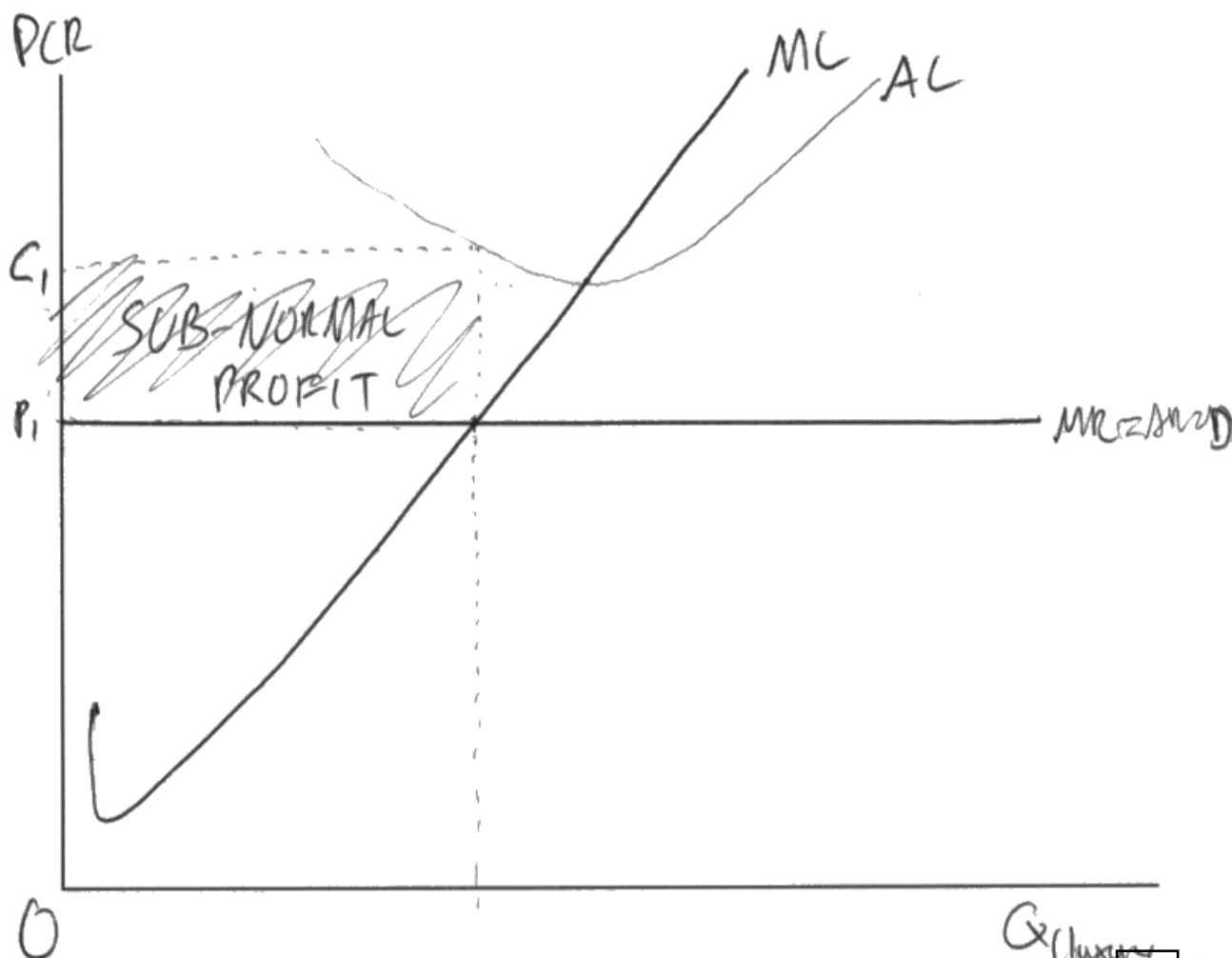
(1) 1

- ☒ A -3.40
- ☒ B -0.74
- ☒ C +0.74
- ☒ D +3.40

(b) Small local bakeries have many of the characteristics of IMPERFECT monopolistic competition.

Draw the short run profit maximising equilibrium of a **loss-making** luxury brownie baker.

(4) 0 Q03b



(Total for Question 3 = 5 marks)

1



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QUESTION 4 BEGINS ON THE NEXT PAGE.



- 4 An annual season ticket for a train journey between London and Reading is planned to increase from £5 044 to £5 664 in 2023.

(Source adapted from: <https://commonslibrary.parliament.uk/how-much-could-rail-fares-increase-by-in-2023-and-why>)

- (a) With reference to the information provided, calculate the percentage change in the price of an annual season ticket.

(2) 2 Q04a

$$\Delta\% = \frac{\text{change in price}}{\text{original}} \times 100$$

$$\frac{(5664 - 5044)}{5044} \times 100 = 12.291$$

$$\text{Answer} = 12.3 \text{ (1.d.p.)} \%$$

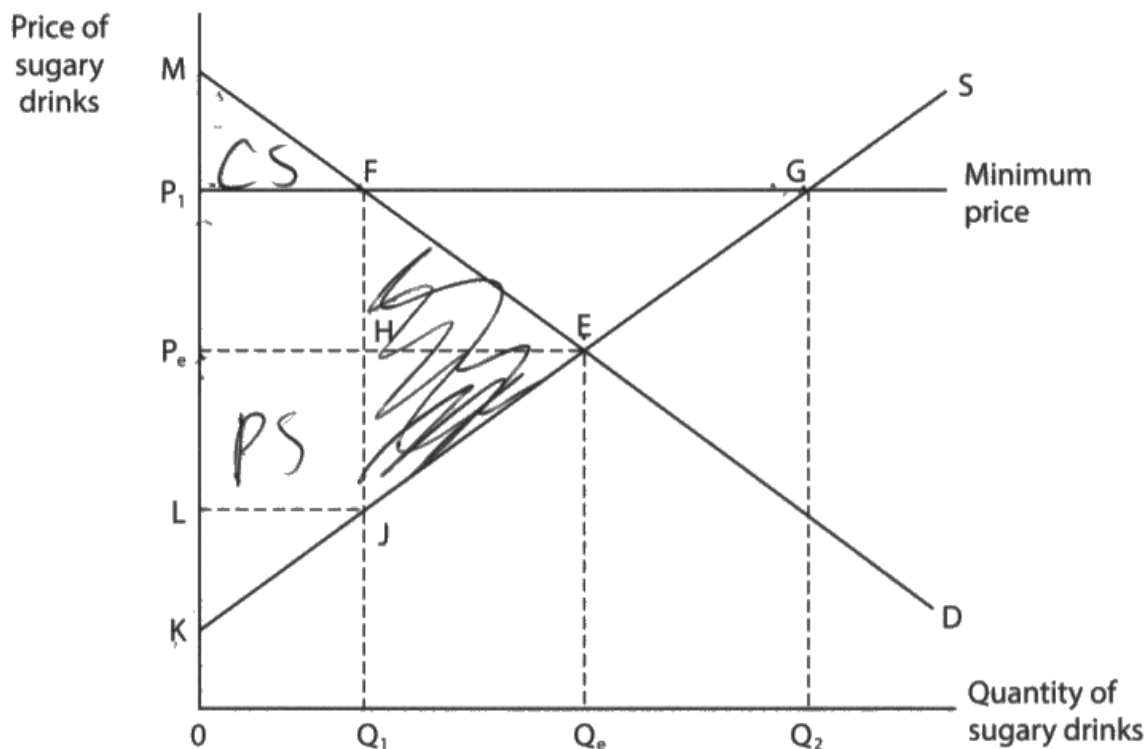
- (b) Explain the likely impact of the increase in price of a season ticket on consumer surplus.

(2) 2 Q04b

Consumer surplus will be eroded, it will decrease as the price level distance between the price consumers are willing to pay and the new price (£5664) is larger, than the old price (£5044).



The diagram below shows the demand and supply for sugary drinks.



(c) Which **one** of the following areas represents the *change* in producer surplus when a minimum price is imposed?

- ☒ A FEP_eP_1
- ☒ B FMP_1
- ☒ C GEP_eP_1
- ☒ D GKP_1



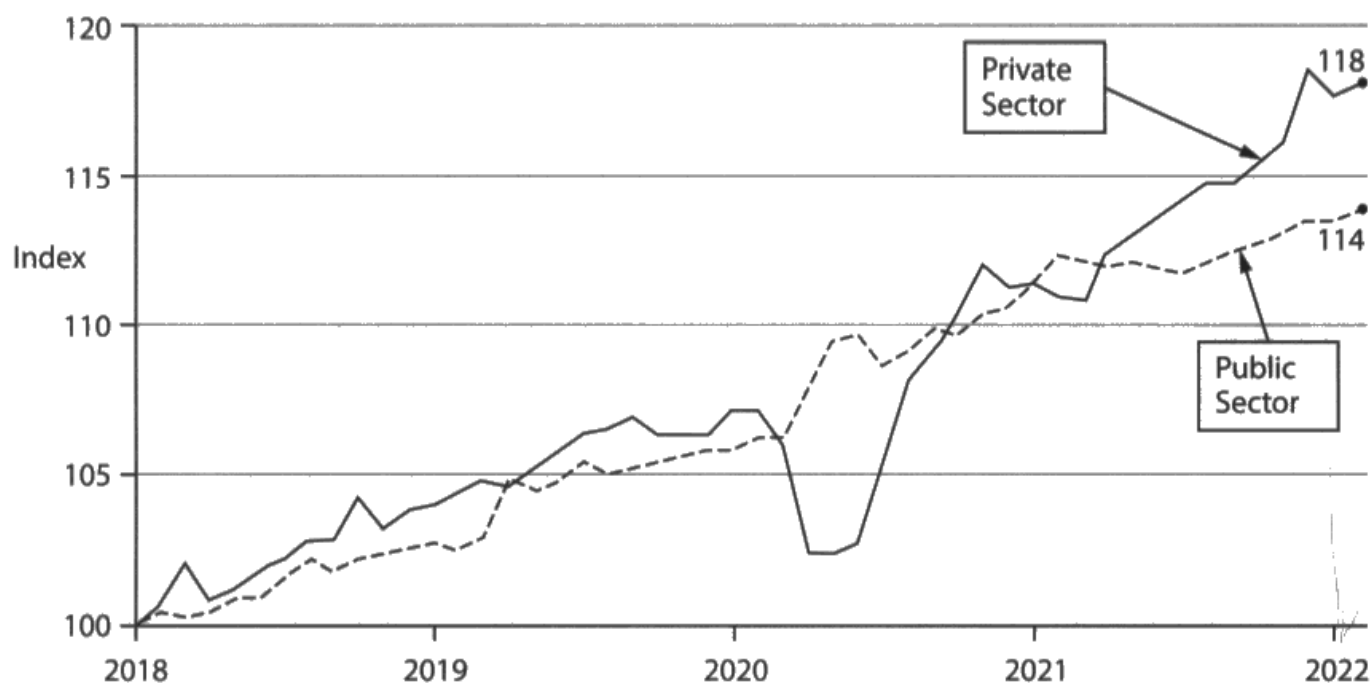
(1)¹

(Total for Question 4 = 5 marks)

5

5 Index of pay in the public and private sector.

Nominal average weekly earnings (base year January 2018 = 100)



(Source adapted from: <https://www.ft.com/content/48dafbb9-371d-4683-9afb-26652add888c>)

(a) Which **one** of the following is the ratio of public sector pay relative to private sector pay in 2022?

(1) 0

☒ A 1:0.97

☒ B 1:1.04

☒ C 1:4.0

☒ D 1:14.0



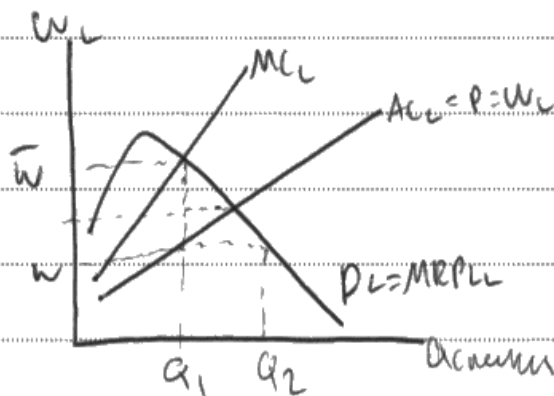
- (b) Over 90% of nurses work in the public sector. Nurses in the public sector have experienced wage rises lower than those in the private sector over the past 10 years.

(Source adapted from: <https://www.nuffieldtrust.org.uk/resource/chart-of-the-week-real-terms-nhs-staff-pay-from-2010-to-2020>)

Using the information provided and the concept of monopsony, explain why nurses in the public sector have had lower wage rises than those in the private sector.

09:10 09:24

(4) Q05b



K, More nurses work in the public sector than private sector, 90% > 10%.

An. The public sector's firm has greater ~~can~~ offer wages at W , as there

is a larger supply of relatively homogenised workers, moreover workers due to the high quantity at Q_1 have less bargaining power with employers as if firms do not need to oblige a ^{to hire next} as due to the high (90%) labor pool, they can hire a worker willing to work at W .

(Total for Question 5 = 5 marks)

4

TOTAL FOR SECTION A = 25 MARKS



P 7 2 9 8 0 A 0 1 1 3 6

SECTION B

Read Figures 1 and 2 and the following extracts (A to C) before answering Question 6.

Write your answers in the spaces provided.

You are advised to spend 1 hour on this section.

Question 6

The UK online streaming services market

Figure 1: Market share of UK online streaming services

| | Q2 2021 | Q3 2021 | Q4 2021 | Q1 2022 | Q2 2022 |
|--------------------|---------|---------|---------|---------|---------|
| Amazon Prime Video | 37.9% | 41.1% | 45.0% | 27.1% | 25.9% |
| Disney+ | 16.0% | 17.7% | 19.3% | 14.1% | 21.5% |
| Netflix | 15.0% | 10.5% | 5.0% | 9.4% | 4.5% |
| NOW | 11.3% | 11.2% | 5.6% | 11.0% | 11.1% |
| AppleTV+ | 4.0% | 5.5% | 7.3% | 9.2% | 9.9% |
| BritBox | 4.0% | 3.0% | 5.7% | 6.0% | 5.9% |
| Others | 11.8 | 11.0% | 12.1% | 23.2% | 21.2% |

(Source adapted from: Kantar, Worldpanel Division Geotech 2022)

Figure 2: UK online streaming services – monthly fees

| Streaming service provider | September 2022 |
|--------------------------------------|----------------|
| Netflix premium (4 users/ultra HD*) | £15.99 |
| Netflix standard (2 users/HD) | £10.99 |
| Netflix basic (single user/non HD**) | £6.99 |
| Amazon Prime Video | £8.99 |
| Amazon Prime Video – Student price | £4.49 |
| Disney+ | £7.99 |
| AppleTV+ | £4.99 |

*This is the highest quality picture currently available

** This is the basic quality picture

(Source adapted from: <https://www.radiotimes.com/tv/what-to-watch-tv/best-streaming-service-uk/>)



Extract A

How Netflix makes use of behavioural science

In the last few years, companies have been trying to find ways to attract the attention of customers. Various streaming platforms such as Netflix, Amazon, and YouTube use 'nudges' to influence consumer behaviour. The 'next-up' feature on Netflix or 'auto-play' on YouTube has been subject to research that relates it to binge-watching. Binge-watching is the practice of viewing for a prolonged period, multiple episodes of a TV show or several films in rapid succession. 5

Similarly, the policy of offering a one-month free subscription under the label of 'free trial' requires credit card information to turn the forgetful subscriber into a potential paying one. Following this strategy, Netflix has expanded to 190 countries in just seven years and according to the Wall Street Journal, the company generated total revenue of over \$5.2 billion in 2019, which was an increase from 2018 of around \$4 billion. 10

However, 2022 data shows that consumers, increasingly worried about the rising cost of living, are turning their back on Netflix. With a reported cancellation of over 200 000 subscriptions in the first quarter and another two million forecast to leave by the end of the year. Subscribers are rethinking their commitment to the streaming services that grew their numbers sharply during the home-based months of the global health crisis. Netflix subscribers have also quoted a decline in value for money and satisfaction with the quality of the shows as key motives for cancellation. 15

Disney now see higher satisfaction rankings than Netflix across the quality of shows, amount of original content, number of new-release films, variety of classic films and amount of kids' content. Forecast cancellation rates for Disney+ fell to an all-time low of 3.2%. 20

(Source adapted from: <https://www.novanudge.com/post/sludge-on-demand-how-netflix-makes-use-of-behavioural-science>
<https://www.theguardian.com/media/2022/apr/20/netflix-shares-fall-losing-subscribers>)

Extract B

The economics of price discrimination

Throughout 2022, Netflix, a 100-billion-dollar company, increased prices in the US, Canada, the UK and Ireland (most of which saw similar price increases in 2021, too). In sharp contrast, Netflix recently announced it was reducing its prices in India (standard/2-user 499 rupees a month, equivalent to £5.42) in a bid to compete with Disney+ and Prime. 5

UK students currently enrolled in a college or university who have a valid student email address can join Prime Student through the Amazon website. This gives them nearly 50% off a standard Prime membership and many other exclusive benefits.

(Source adapted from: <https://help.netflix.com/en/node/24926/in>)



Extract C

Educational Website and TV Programmes

BBC Bitesize is a learning platform created by the BBC in 1998. The online study resource allows parents to teach their children from home, using ready-made lesson plans and study guides with questions for all ages. The revision sessions are free to watch and they are available for children aged five up to their late teens. The guides are written by teachers and subject experts, so they are reliable and follow the National Curriculum. Last year Bitesize attracted around two million weekly unique browsers with a peak week of 3.3 million in the GCSE exam period.

5

Oak National Academy is a freely available learning resource website created for pupils aged four to sixteen. Launched in 2020, as a response to the global health crisis, the website includes lesson slides, video lessons, worksheets, and quizzes conforming to the national curriculum in England. Ministers have set aside £43 million to fund the Oak National Academy over the next three years.

10

(Source adapted from: <https://www.bbc.co.uk/bitesize/articles/zmjdhbk>
<https://www.structural-learning.com/post/oak-academy-a-teachers-guide#:~:text=Oak%20National%20Academy%20is%20a,the%20national%20curriculum%20of%20England>)



- 6 (a) With reference to Figure 1, explain the market structure that best describes the market for UK online streaming services. (5)
- (b) With reference to the information provided, assess whether Netflix subscribers behave rationally. (10)
- (c) With reference to the information provided, examine the likely numerical value of the cross elasticity of demand between UK online streaming services. (8)
- (d) With reference to Extract C, discuss the likely private and external benefits of viewing educational websites and TV programmes. (12)
- (e) Using examples from Figure 2 or Extract B, discuss the likely impact of price discrimination on a firm's profits. Use a relevant diagram to support your answer. (15)



- 6 (a) With reference to Figure 1, explain the market structure that best describes the market for UK online streaming services.

09:25

(5) 3 Q06a

The market structure can be said to be oligopolistic, there are 4 firms with market share over 10% in Q2 2021, Q3 2021, Q4 2021, Q1 2022, "Amazon, Disney, Netflix, Now". It is ~~oligopolistic~~ or can be said that this market structure is oligopolistic due to the 4 largest firms selling slightly differentiated products. However it can also be argued to be monopolistic, Amazon in Q3 2021 and Q4 2021 had market share over 40%, which is the CMA's definition for a legal monopoly. It can be said to be oligopolistic in the sense, four firms possess the largest market share.

short run

However, to evaluate in SR periods the market may appear monopolistic as it is only in 2 quarters, periods a legal monopoly appears, and appears oligopolistic in long-run periods.



(b) With reference to the information provided, assess whether Netflix subscribers behave rationally.

09:24

(107) Q06b

~~As~~ consumers can be said to behave rationally, computation error is not shown to be possessed by a majority of consumers, the increase in "cost of living" would result in a price markup for Netflix subscriptions, thus the "200,000" subscribers who have left, made a computational decision in which they decided whether the price difference (in this case price increase) justified a monthly subscription, to which a "further two million" are forecasted to leave. However, it can be argued "forgetful subscribers" who forget to cancel "free trials" is an indicator of irrational economic behavior as they possess both inertia (tendency to not change), in this instance "change" by consciously making the effort to cancel subscription - but also that they display human error - as the consuming economic agent, may have it put at their nature (that they are forgetful). To evaluate, while the "forgetful" aspect of not remembering to cancel free trials is a sign of inertia (human error), extract A provides no scale of magnitude and perhaps due to information gaps i.e. "no way to ask every consumer did they forget to cancel free trial" it ~~is~~ ^{is not} this evidence cannot be weighted against them. Moreover, it is a vast generalisation to assume every consumer of the "200,000" who



left and the "two million" forecasts,
all chose to because of an awareness
of calculating price differences, as
they may simply not value
the product because they have
cost interest (satisfaction)
and do not calculate price difference
to see if they are
maximising total consumer utility,
and total substitution.

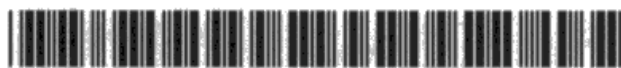


(c) With reference to the information provided, examine the likely numerical value of the cross elasticity of demand between UK online streaming services.

(8) 4 Q06c

09:41

1) The cross elasticity of demand is likely to be positive but not $\equiv 1$, as ~~the~~ although Figure 2 to tables UK streaming services they are not perfectly homogenous, for example the XED between Netflix basic and Amazon prime video are perhaps closest to 1, due to the £2 price difference, rather than Netflix premium and Netflix basic, as for some consumers picture quality may be a big factor in deciding which subscription to purchase. However, to evaluate this assumes certain purchases, whereas in reality streaming services such as Disney⁺, offer exclusive TV-shows only available to them e.g. "The Mandalorian", likewise Netflix also does this with shows such as "Euphoria, stronger films", therefore the XED is closer to 0 e.g. "0.2" as these products are extremely differentiated. However, to counter-evaluate the level of differentiation and XED, may vastly differ between consumers, some consumers may possess no preference for service exclusive shows, therefore buying price differences and picture quality, their XED may be closest to 1.



The ~~cor~~ XED cannot be 0 as there
is correlation between all streaming
servers.

(d) With reference to Extract C, discuss the likely private and external benefits of viewing educational websites and TV programmes.

(12) 10Q06d

One likely private benefit of educational media "websites and TV programmes" to viewers is an increase in subject knowledge, such as a viewer of a ^{"GCSE bitesize biology programme"} ~~medical channel~~, which offers health advice i.e. "reduce sugar intake and exercise ^{outside} more" - this is a private benefit as viewers may improve their health, thus in the long-run experience a longer life expectancy and perhaps in both long-run and short-run, experience a higher ~~QOL~~ quality of life as, seasonal depression may decrease (SAD) as viewers spend more time outside. An external benefit to society may be less workers taking "sick-leave" and a "healthier" workforce, which in theory is more productive as perhaps due to an improved mood from spending time outdoors, workers are more motivated and take fewer time days off, industries can grow due to an increase in productivity. Moreover such health-educational media, may act as nudges to encourage consumers to avoid demerit goods "alcohol" or cigarettes, this can reduce the need for government intervention ^{on a pigouvian sin tax} but also reduces the strain on public health services such as the



INERTIA NORMATIVE

NHS² is "decreased waiting times" more hospital beds available". However, to counter-evaluate the term "educational" is highly normative it cannot be tested, as for what is 'educational' for one individual may wildly differ, moreover it can be argued it is too broad of a term, as some programmes may possess some educational elements it may overall be negligible, such the magnitude and scale of benefits is small, to a minority viewership. ~~Moreover~~ Another, evaluative point is that consumers ^{may} possess inertia, despite seeing of health risks "do" and "don't" from educational media, they may have no tendency to change, despite their self-agency.

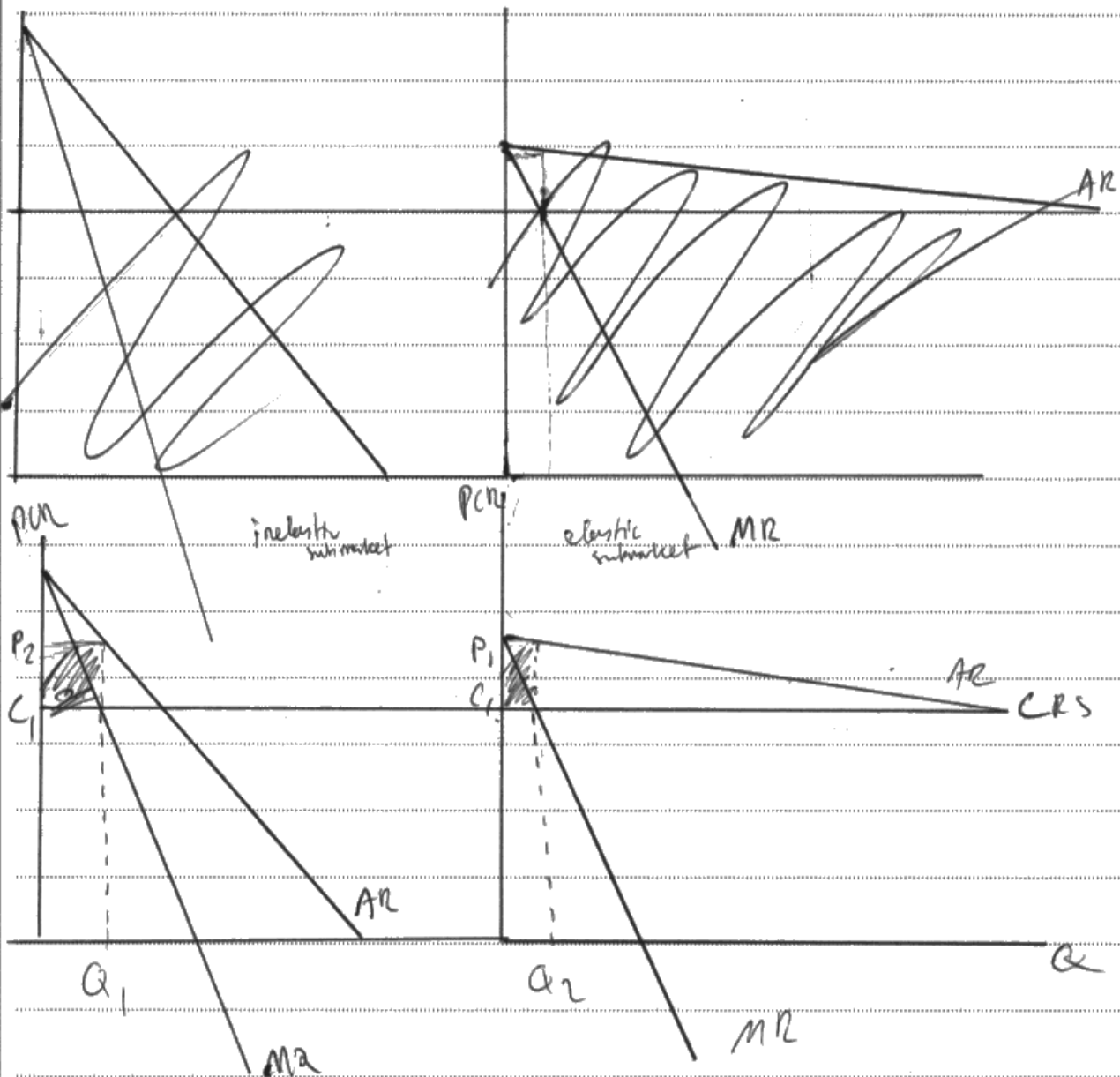
In conclusion any likely benefit, is ~~not~~ only speculative it ~~may~~ require as in practice, ~~the~~ all economic agents are not perfectly rational. However, as they are written by "subject experts and are up to date with the National Curriculum" they are more likely to be highly relevant and informative. moreover the £45 million funding may further develop, channel capacity to increase viewership numbers, so the scale of such media benefits ^{increases}.





(e) Using examples from Figure 2 or Extract B, discuss the likely impact of price discrimination on a firm's profits. Use a relevant diagram to support your answer.

(15) 1Q06e

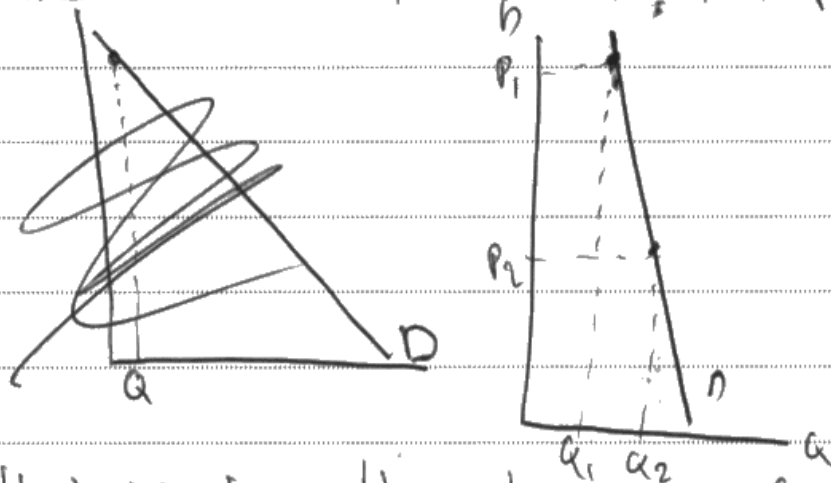


One likely impact of price discrimination is a decrease in supernormal profits such that more elastic consumers in the Indian sub-market are offered a lower price to "P₁" = 499 rupees a month, this reduction in price means that the total area size of π



P 7 2 9 8 0 A 0 2 5 3 6

decreases. However to evaluate, this assumes that all consumers in the Indian sub-market are relatively elastic. Indian consumers on higher income bands may be inelastic towards Netflix premium.



As illustrated by the diagram, Q_1 suggests a portion of viewers may still consume at P_1 (as since they are on higher income bands ~~they are more able~~, the f/S.c.g for premium, appears as a smaller proportion of total income, thus have smaller and are not attracted to the new P_2 price, for a basic substitute.

Therefore, the reduction in profit may not take place at all, as there are still Indian consumers in the inelastic submarket.



However, to counter-evaluate extract B does not reveal the viewership numbers for ~~those~~ those on the new basic plan of 499 rupees and how many Indian consumers are on the Netflix premium plan of \$15.99

Moreover, profits may not decrease in the SR, as consumers may experience time lags in finding a substitute for Netflix at a lower price than \$15.99 or 499 rupees. Such that, profits may have only decreased in the long-run, which assumes consumers have made a computational decision comparing changes in price between different streaming providers.



(Total for Question 6 = 50 marks)

35

TOTAL FOR SECTION B = 50 MARKS



SECTION C

Answer ONE question from this section.

Write your answer in the space provided.

You are advised to spend 30 minutes on this section.

EITHER

- 7 The average UK household energy bill (gas and electric combined) rose 80% from £1 971 in 2021 to £3 549 in 2022.

(Source adapted from: <https://www.telegraph.co.uk/money/consumer-affairs/energy-price-cap-rise-october-2022-what-happen-household-bills/>)

Evaluate possible methods of government intervention to control household energy bills in the UK.

(Total for Question 7 = 25 marks)

OR

- 8 Using 2021 estimates of carbon emissions, it is estimated that a petrol car journey from London to Glasgow emits approximately 3.3 times more carbon dioxide per passenger than the equivalent journey by train.

(Source adapted from: <https://www.gov.uk/government/statistics/transport-and-environment-statistics-autumn-2021/transport-and-environment-statistics-autumn-2021>)

Evaluate possible methods of government intervention to reduce carbon emissions caused by road transport in the UK.

(Total for Question 8 = 25 marks)

Indicate which question you are answering by marking a cross ☒. If you change your mind, put a line through the box ☒ and then indicate your new question with a cross ☒.

Chosen question number: Question 7 ☒

Question 8 ☒

19SecC

Write your answer here:

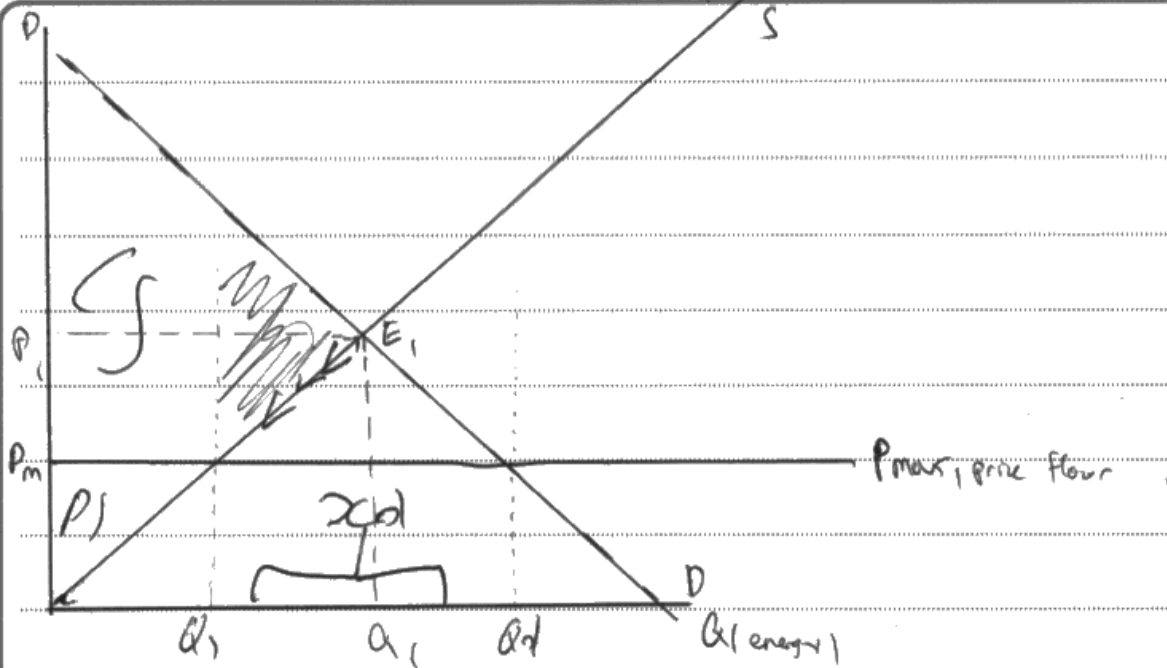
$$10:08 + 30 = 10:38 \pm 3_m$$

One possible government is the introduction of a maximum price on the amount consumers are charged for each kWh of energy used.



P 7 2 9 8 0 A 0 2 9 3 6

PM distorted

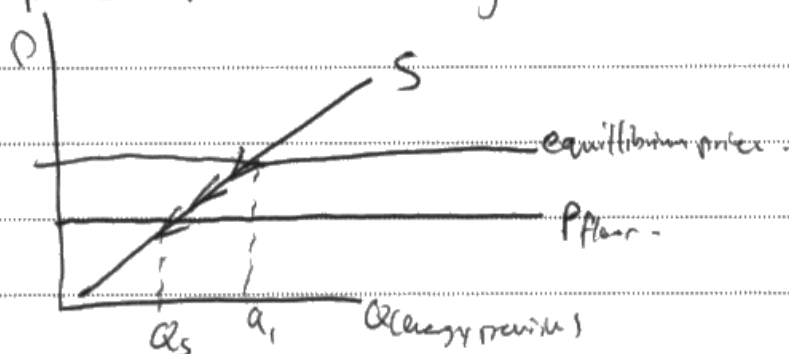


One benefit from such a scheme is, the increase in CS, consumers on the lowest income bands may find this policy in their favour as they now may find this to be more affordable, as the old P_1 may have been regressive for them and instead their energy expenditure as part of their total spending becomes smaller, allowing them to have more disposable income. Moreover;

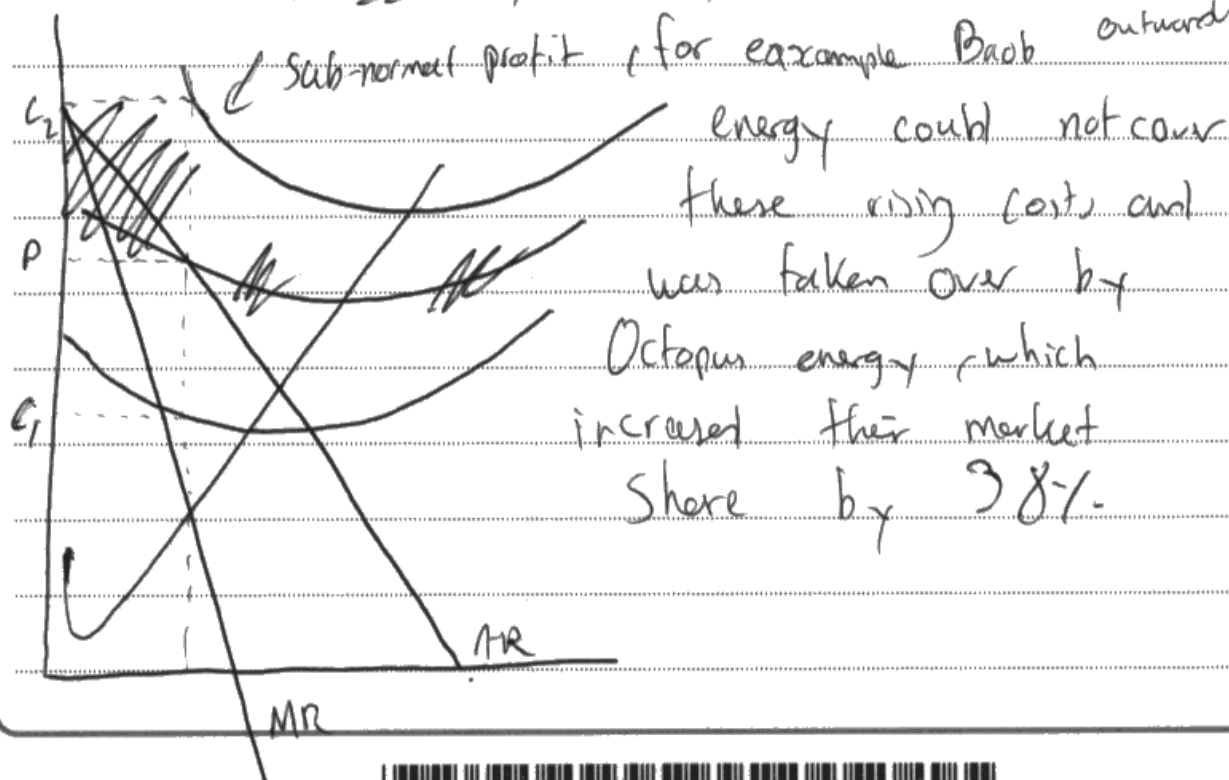
a) energy is a necessity, ^{good} some may argue the minimum price is absolutely necessary for consumers as it is essential every UK citizen can afford energy to heat their home. However, this is an extremely cursory glance at the diagram, while yes the price mechanism is distorted in the favour of consumers, if a legal price maximum floor is imposed per kWh of energy, firms



profit decrease such that for each price level, firms receive less Π , as firms are ultimately profit-incentivised, this signals to energy providers to leave the market, such that quantity, originally at the free market Q_1 , is now only supplied at Q_5 as the price mechanism signals for energy firms to leave.

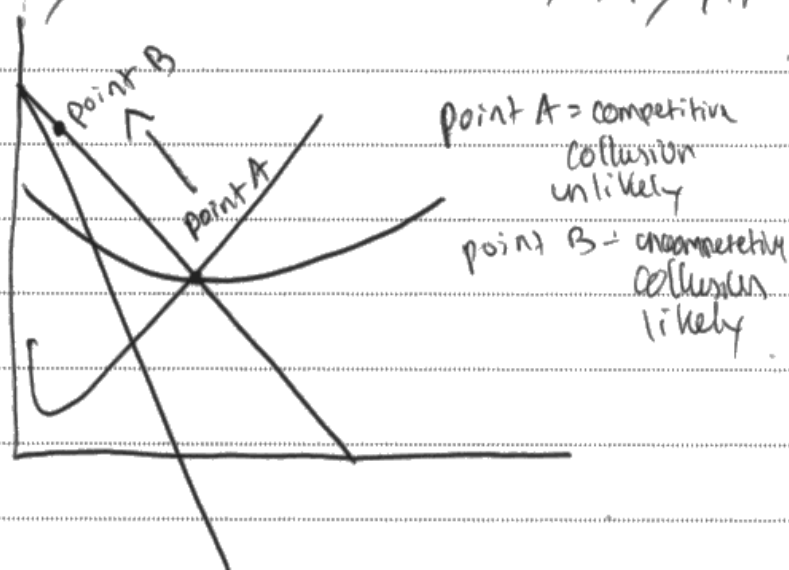


Furthermore, in the long-run, this may leave smaller energy providers no choice but to exit the market, if sub-normal profits are generated, shareholders may decide to sell stocks and firms may no longer cover ~~fixed~~ ^{variable costs} ~~costs~~, such that ~~the~~ and AC shift outwards.



energy could not cover these rising costs and was taken over by Octopus energy, which increased their market share by 38%.

This may not be in the consumers favor, as in the long-run collusion may be more likely, if in the long-run the price move is likely



Instances such as the takeover of Barch by Octopus may be illustrated by point A moving to point B such that consumers now pay the new P_2 rather than the P_1 which was allocatively efficient.

However, to evaluate this assumes that firms despite the decrease in Π cannot, remain in the market by cutting other relevant variable costs - take for instance Octopus who remained as an energy provider despite the energy price cap of 2018 by slashing their 'referral schemes and sign up bonuses'.



Therefore it can be argued that, in the long-run, firms may still remain in the market, keeping it relatively competitive and not move to point B.

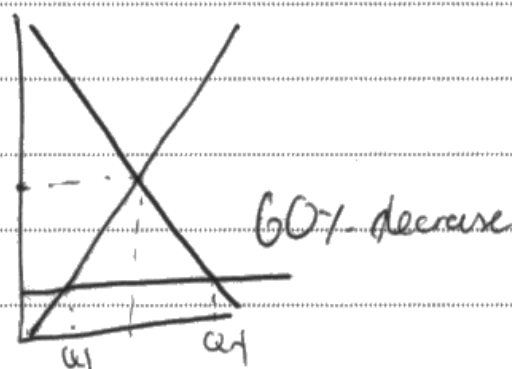
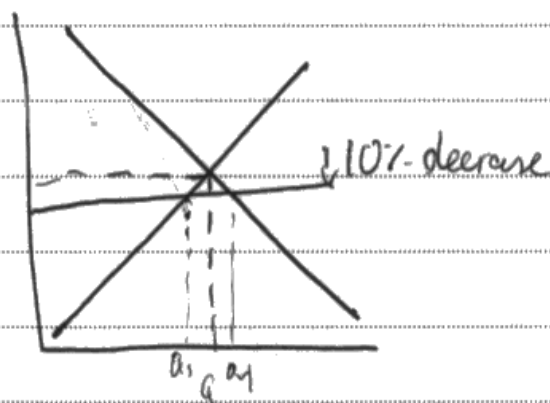
On the other hand, it must be noted this scheme may be very regressive, Qd outstrips Qs, which leads to excess demand, this may leave some consumers unable to "heat home for winter" and may be devastating for elderly consumers unable to obtain an energy provider. However, this may be very speculative as in the LR, demand for energy is elastic as consumers may choose to use "wood-stoves" to heat their home, thus avoiding the problem of low Qs.

Another counter-evaluative point for the assumption governments will place the legal maximum price floor on ~~at~~ the allocatively efficient point, governments possess incomplete information such that, it is not possible to gather the optimum price for an entire energy market as depending on a consumer's income, ~~the~~ ^{price} floor / family size, they may ~~use~~ ^{react} to ~~many~~ ^{market} ~~market~~ ^{supply} of energy. Furthermore, ~~It~~ Theresa May's pledge to launch a maximum price is ~~the~~ ^{her} best example of this, her speech was littered with



normative words such as "rip-off providers, broken market, unfair prices", these cannot be positively tested true or false and suggest the government price floor is not one which is allocatively efficient due to normative reasoning and lack of information on where the allocatively efficient point is.

Furthermore the magnitude of the price level cap is crucial.



As illustrated a hypothetical 10% decrease may negligibly lead to a \rightarrow minor inward shift of Q to Q_1 and outward shift from Q to Q_2 .

In conclusion, while there are benefits to consumers such as a much larger CS area, if the drawbacks are much larger. As Milton Friedman says, "I think the government solution to a problem is often worse and there is a smoke stack on the back of every government programme", such that it can be argued that it would

SEE ANSWER SHEET

TOTAL FOR SECTION C = 25 MARKS **19**
TOTAL FOR PAPER = 100 MARKS



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Candidate name

CHRIST AMLAI

Centre number

13277

Candidate number

3182

Paper reference

9EC0101

Question number

7

Sheet number

2

Question
Number

be arguably better to leave the 'free market alone' and rely on intra-competition between firms, to remove inefficient firms and encourage innovation within rivals.

a) Danish economist Boserup suggests 'necessity is the mother of all innovation' to reduce price levels by technological advancement,

a) the law of unintended consequence suggests this. Maximum price is regressive as it causes exit, chance for collusion, people unable to receive necessary goods.

Turn over ►

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