PEARSON EDEXCEL IAL ECONOMICS · YEC11

ECONOMICS



MARK SCHEME

UNIT 1: PRICE DETERMINATION

SCORE	PERCENTAGE
/338	%

STEMUP

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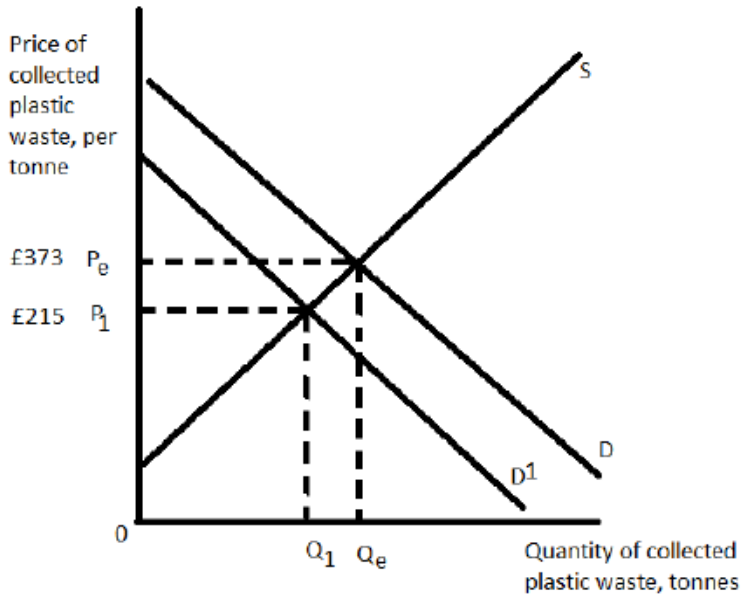
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Mark Scheme

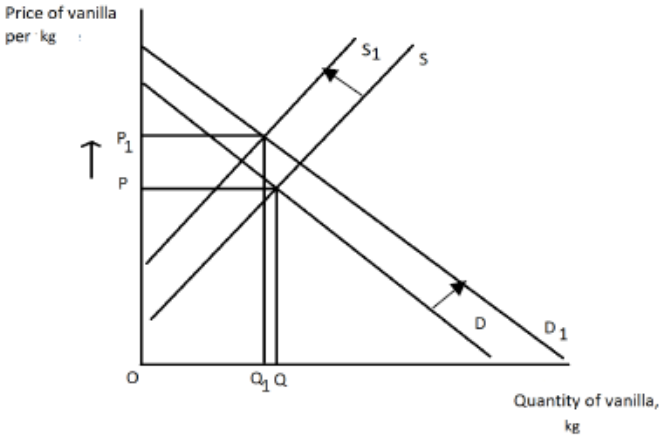
Q1.

Question	Quantitative skills assessed	Answer	Mark
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is A** **B** is not correct because firms would supply less if the price decrease **C** is not correct because the price decrease would be caused by lower demand **D** is not correct because government intervention is not a function of the price mechanism	(1)

Q2.

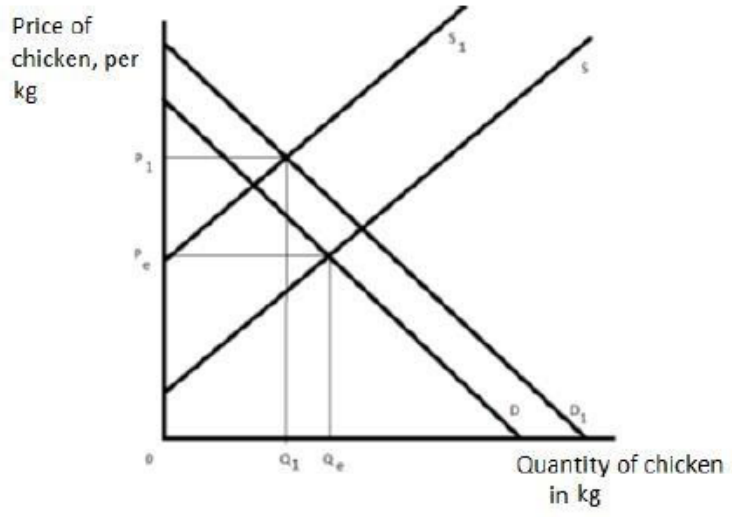
Question	Analyse **one** reason why 'the price of plastic waste material fell by more than 40%.' (Extract A, line 2). Illustrate your answer with a supply and demand diagram. Answer	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium **(1)** • leftward shift in demand **(1)** **Analysis** Up to 2 marks for development of how reason(s) leads to lower prices, e.g.: • There are less companies willing to buy the material **(1)** • Meaning sellers have to accept a lower price for the goods **(1)** • There will be a contraction in supply **(1)** • Final equilibrium showing lower price **(1)**	
	Application Up to 2 marks for reference to the data from Extract A: • The price falls from £373 to £215 per tonne **(1)** • With China banning the import of collected waste plastic **(1)** • There are now dramatically fewer buyers for the plastic waste **(1)**  	**(6)**

Q3.

Question	Analyse why the price of vanilla increased significantly between 2014 and 2018. Refer to Figure 2 and Extract A in your answer. Illustrate your answer with a supply and demand diagram. **Answer**	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium **(1)** • Final equilibrium showing higher price **(1)** **Analysis** Up to 2 marks for identification of one reason linked to demand and one linked to supply which leads to higher prices, e.g.: • 2017 cyclone destroyed crop and reduced supply **(1)** • In recent years consumers switched to natural vanilla/ Consumers switched away from vanilla substitutes, e.g. vanillan/ • Rapid growth in demand for ice cream, sweets, chocolate and in cosmetic products which use vanilla **(1)** **Application** 1 mark for reference to Figure 2 • Price rises from \$140 per kg to \$600 per kg/ by \$460/ by 328.6% **(1)** Up to 2 marks for diagram: • Leftwards shift in supply **(1)** • Rightwards shift in demand **(1)**  	**(6)**

Q4.

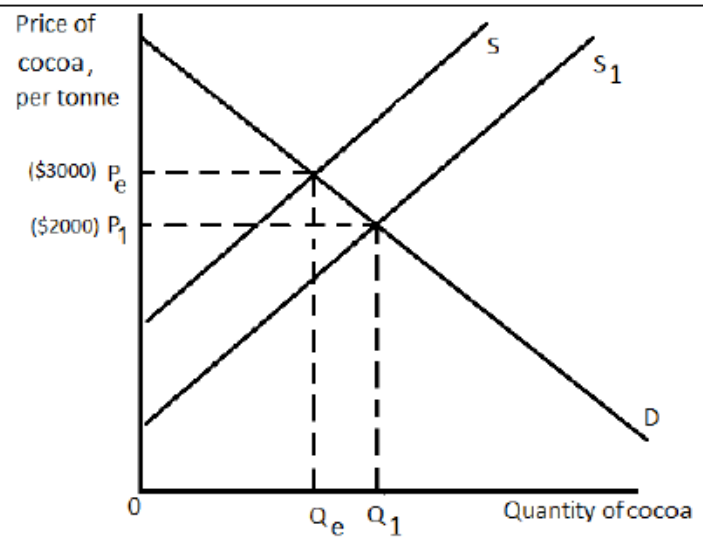
Question	With reference to Figure 1 and the first paragraph of Extract A, analyse **one** demand reason and **one** supply reason why the price of chicken increased by 147% between May 2020 and May 2022. Illustrate your answer with a supply and demand diagram. **Answer**	**Mark**
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium price and quantity **(1)** • New equilibrium price and quantity having shifted both supply and demand **(1)** **Analysis** 1 mark for condition of demand from Extract A • chicken became a more popular choice/ it is considered to be a healthier option than other meats **(1)** 1 mark for condition of supply from Extract A • 20% increase in the cost of chicken feed/ outbreak of bird flu/ 140 million chickens globally could not be sold for consumption **(1)** **Application** Up to 2 marks for diagram or reference to Figure 1.: • Shift demand to the right **(1)** • Shift supply to the left **(1)** • **May 2020** price \$1.50 per kg to approximately \$3.70 in **May 2022 (1)**	



(6)

Q5.

Question Number	With reference to Figure 1 and Extract A, analyse **one** reason why the price of cocoa beans 'fell below $2 000 per tonne' (Extract A, line 8) in April 2017. Illustrate your answer with a supply and demand diagram.	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium **(1)**. • Correct shift in supply **(1)**. **Analysis** 1 marks for development of how the reason leads to lower prices, e.g.: • Cote d'Ivoire production rising meaning that at any given price supply is higher **(1)**. • The trees maturing means the growers are able to supply more cocoa at a lower cost **(1)**. • Good harvests lead to excess supply at original price, so causing downward pressure on price **(1)**. 1 mark for using diagram to show impact of the change in supply on equilibrium price: • New equilibrium showing lower price **(1)** **Application** Up to 2 marks: 1 mark for interpreting data from Figure 1: • showing the price above $2 000 before April 2017 e.g. August 2016 $3 000 **(1)** Or may be shown in diagram Up to 2 marks for using data from Extract A: • Cote d'Ivoire production rose from 1.45m tonnes to 1.93m tonnes /a good harvest/ stocks 27.3% higher/ new trees maturing **(1+1)**.	**(6)**



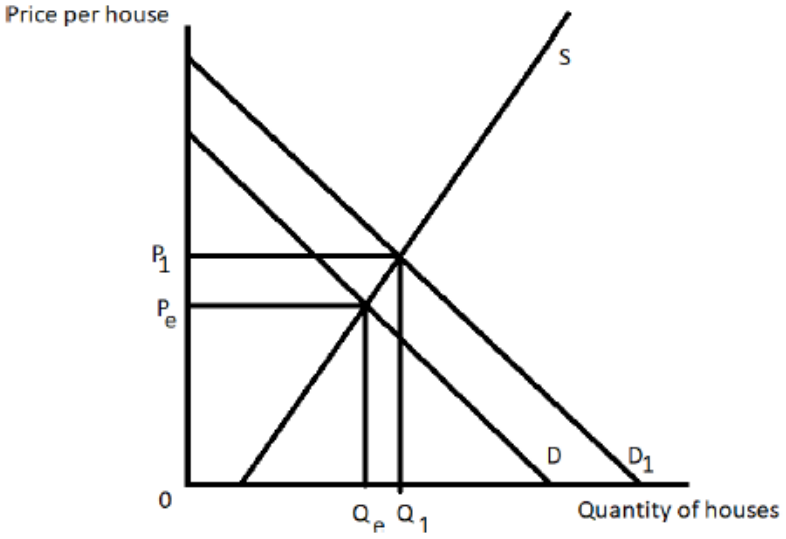
Q6.

Question	With reference to paragraph 1 of Extract A, analyse **two** reasons why house prices increased between March 2020 and March 2021. Illustrate your answer with a supply and demand diagram. **Answer**	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium **(1)** • Final equilibrium after rightward shift in demand curve **only (1)** **Analysis** up to 2 marks for analysis linked to demand e.g.: • Increasing real incomes/above average rate of economic growth **(1)** • 0.25%/low base interest rates/cheap to borrow **(1)** • Immigration following the global health crisis **(1)**	

Application

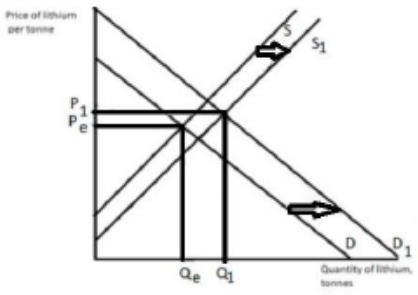
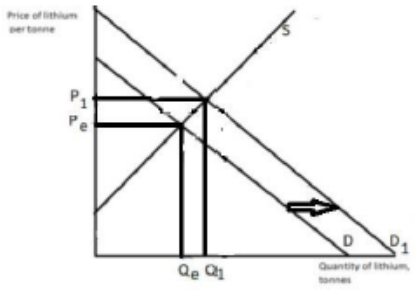
2 marks for:

- Rightwards shift in demand on diagram **(1)**
- House prices in New Zealand increased by 15.7%/the average house price had risen to NZ$925 000 **(1)**



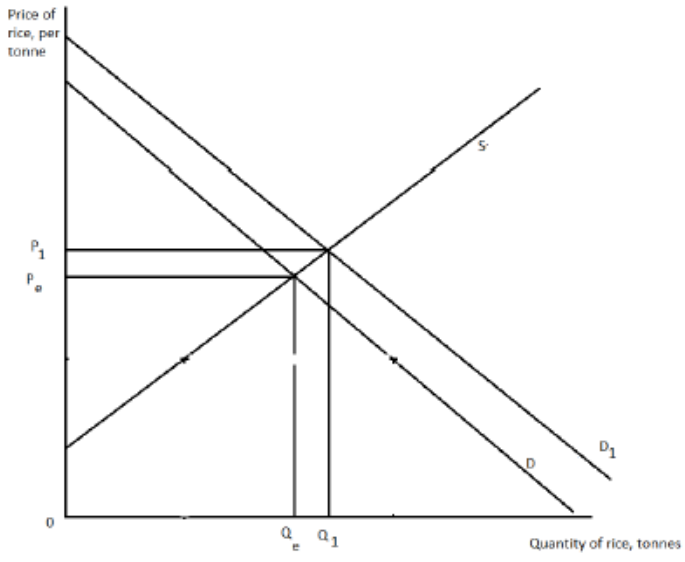
(6)

Q7.

Question	With reference to Figure 1 and Extract B, analyse **two** reasons why the 'world price of lithium increased by 191%' (Extract B, line 2). Illustrate your answer with a supply and demand diagram **Answer**	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4:** Construct and interpret a range of standard graphical forms **QS9:** Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original demand, supply and equilibrium price and quantity **(1)** • New demand, supply and higher equilibrium price and quantity **(1)** **Analysis** Up to 2 marks for analysis linked to Extract B e.g.: • Demand increased by significantly more than supply / Supply is relatively price inelastic **(1)** • With rising gas and oil prices many consumers are switching from traditional fuel cars to electric-powered cars. These require lithium in the batteries / In China electric vehicle sales increased by 157.5% in 2021 / Globally electric vehicle sales increased by 108%/to 6.75m in 2021 **(1)** • Sales of Smartphones, which use lithium batteries, also increased by 11.4% in 2021/to 1.5bn **(1)**	
	Application 2 marks for diagram **OR** 1 mark for diagram and 1 mark for reference to Figure 1: • Shift demand to the right **(1)** • Shift supply to the right **(1)** • Reference to Figure 1- e.g. October 2021 price was 180 000 yuan and in October 2022 510 000 yuan/ an increase of about 330 000 yuan **(1)**  4 mark diagram  3 mark diagram	**(6)**

Q8.

Question	With reference to Figure 1 and Extract A, analyse two reasons why the price of rice increased between July 2022 and July 2023. Illustrate your answer with a supply and demand diagram. **Answer**	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium price and quantity **(1)** • New higher equilibrium price and quantity having only shifted demand **(1)** **Analysis** Up to 2 marks for reasons from Extract A • Rice consumption in Africa and Asia is growing rapidly **(1)** • As populations grow/In 2022 the population grew by 2.45% in Africa and 0.83% in Asia **(1)** • Incomes rose/ In 2022 the average economic growth rate was 4% in Asia and 3.85% in Africa **(1)** **Application** 1 mark for diagram and 1 mark for reference to Figure 1.: • Shift demand curve to the right **(1)** • Figure 1- price index rises from 108.4 to 129.7 between July 2022 and July 2023/ increased by over 19.6%/ 21.3 increase in the index **(1)**	

		**(6)**

Q9.

Question Number	With reference to Figure 1 and Extract A, analyse **two** reasons why the world price of sugar fell between August 2017 and August 2018. Illustrate your answer with a supply and demand diagram. Answer	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium **(1)** • Final equilibrium showing lower price **(1)** **Analysis** Up to 2 marks for any two reasons below: Supply factors • Favourable weather • Good harvests • Indian Government subsidising sugar production • India/Thailand had record levels of production/helping to increase global production to 11% higher than in 2017 Demand factors • Consumption of sugar has fallen because of increasing health concerns • Competition from substitutes such as artificial sweeteners • In the USA/Europe/China/Australia sugar consumption has fallen **NB accept two demand or two supply factors or one of each**	

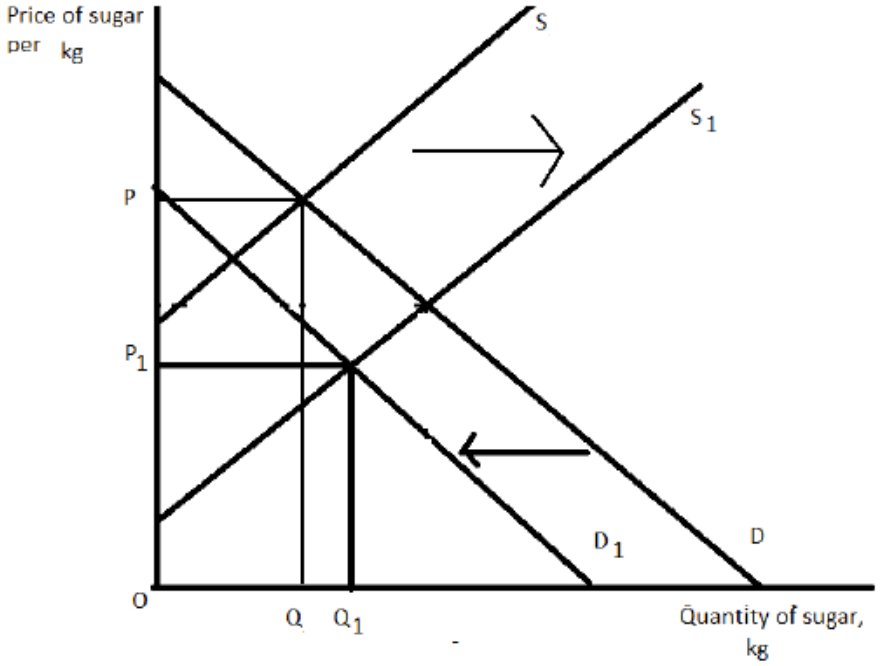
Application

1 mark for reference to Figure 1

- Price decreased by $0.08/25% **(1)**

Up to 2 marks for diagram:

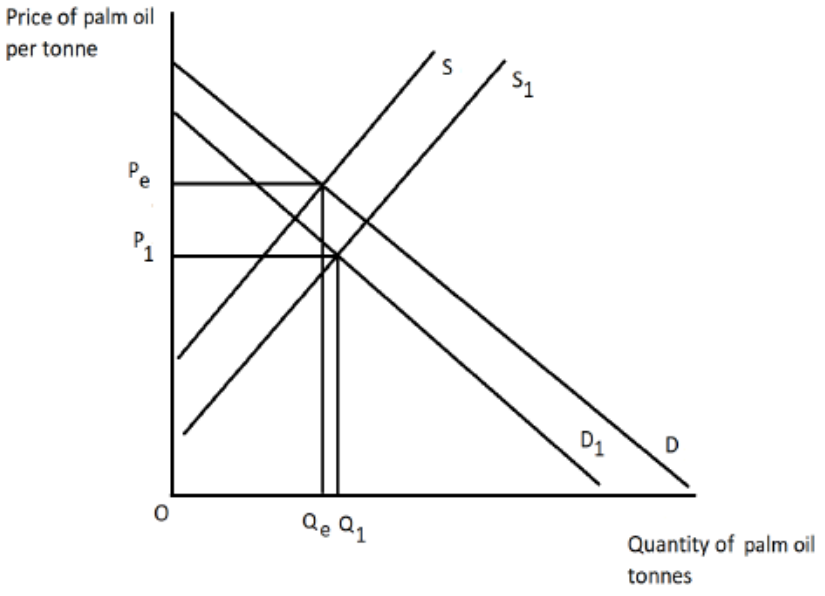
- Rightwards shift in supply **(1)**
- Leftwards shift in demand **(1)**



(6)

Q10.

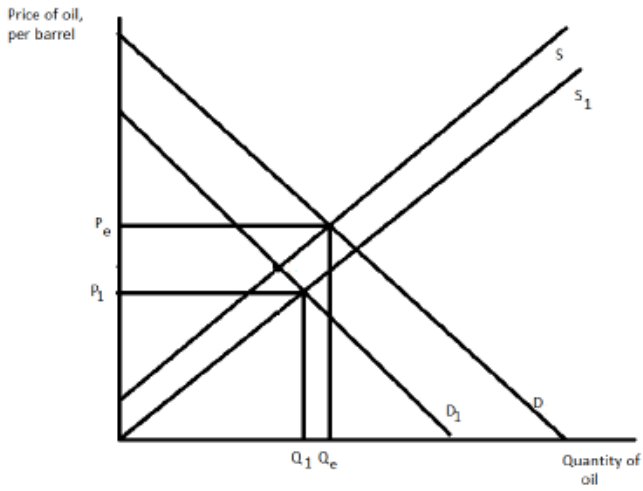
Question Number	Answer	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms **Knowledge** Up to 2 marks for the diagram showing: • Original supply and demand curves and equilibrium **(1)** • Where a candidate correctly shifts supply to the right **or** demand curve to the left **(1)** **Application** 1 marks for one demand factor: Causing leftward shift in the demand curve: • Price of competing oils/ soya/ rapeseed/ sunflower have fallen **(1)** • Lower crude oil prices, substitute for palm oil/ biodiesel **(1)** 1 marks for one supply factor: Causing rightward shift in the supply curve: • More produced/ abundant supply **(1)** **Analysis** Up to 2 marks for development of how reason(s) leads to lower prices, e.g.: • Where a candidate has shifted the second curve correctly e.g. rightwards shift in supply **AND** leftwards shift in demand **(1)**. • Final equilibrium following shift in both supply and demand **(1)**	**(6)**



Q11.

Question Number	Answer	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, and demand and equilibrium **(1)** • Final equilibrium showing lower price **(1)** **Analysis** 1 mark for demand factor e.g.: • Governments restricted the movement of people • Offices and factories closed • Significant reduction in production • Less transport and energy needed **(1)** 1 mark for supply factor e.g.: • Saudi Arabia and Russia increased supply of oil • Failure to agree to limit production **(1)**	

Application



1 mark for reference to Figure 1

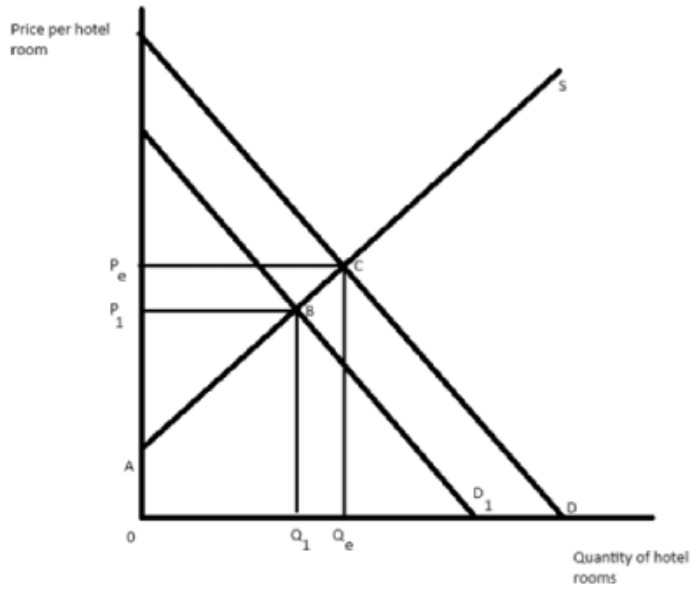
- Price decreased from $68 per barrel to $32 per barrel/by $36/by 53%

Up to 2 marks for diagram:

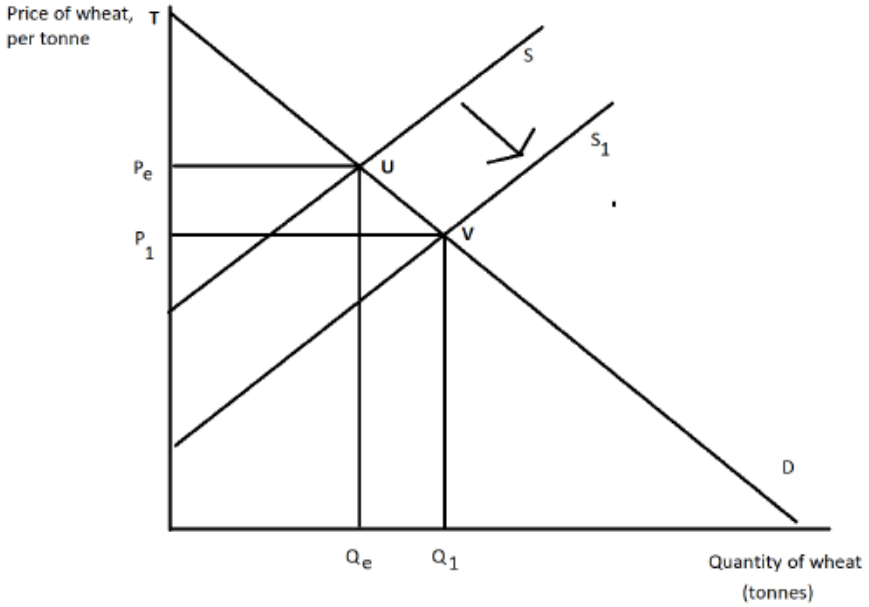
- Rightwards shift in supply **(1)**
- Leftwards shift in demand **(1)**

(6)

Q12.

Question	Between 2019 and 2022 the number of international visitors to Czechia decreased from 6.8 million to 4.5 million. Ceteris paribus, explain the likely impact on the producer surplus in the hotel market in Czechia. Illustrate your answer with a supply and demand diagram. **Answer**	**Mark**
	Knowledge 1, Application 1, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for definition of producer surplus e.g.: • Producer surplus is the difference between the amount a producer is willing to sell a good for and the price they actually receive/ shown by the difference between the supply curve and the market equilibrium price **(1)** **Application** 1 mark for inwards/leftwards shift of demand **(1)**  **Analysis** Up to 2 marks for showing the change in producer surplus • Producer surplus decreases **(1)** by $BCPeP_1$ **(1)** **Or** • Original producer surplus ACPe **(1)** **and** New producer surplus ABP_1 **(1)**	**(4)**

Q13.

Question	Explain the likely impact of this fall in price on consumer surplus in the market for wheat. Illustrate your answer with a diagram. **Answer**	Mark
	Knowledge 1, Application 1, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **Knowledge** 1 mark for defining consumer surplus • Consumer surplus is the difference between the price the consumers are willing to pay and the market price/gap between the equilibrium price and the demand line **(1)** **Application** 1 mark for the following diagram, showing the correct shift in supply  **Analysis** 1 mark for original consumer surplus • Consumer surplus is originally P_eTU **(1)** 1 mark for new consumer surplus or increase • Consumer surplus increases to P_1TV **(1)** • Consumer surplus increases by P_eP_1VU **(1)**	**(4)**

Q14.

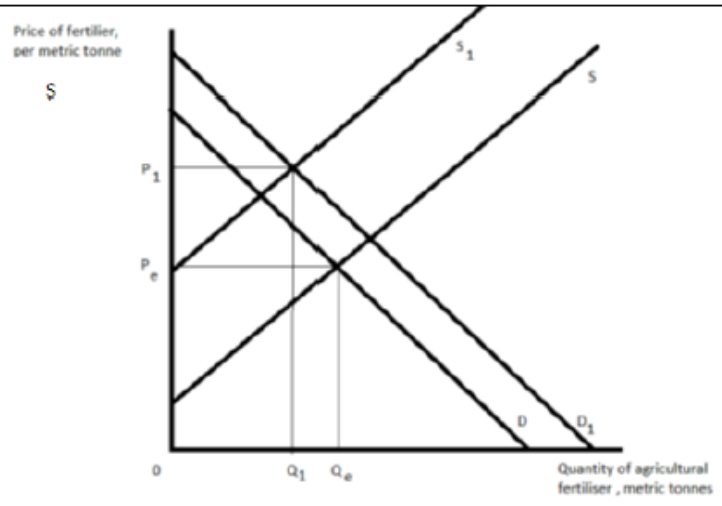
Question Number	Answer	Mark
	Knowledge 2 Up to 2 marks for defining 'equilibrium', e.g.: • Where the market is in balance **(1)** • Where supply and demand intersect/ meet/ situation where supply and demand are matched **(1)** • Leading to a stable price **(1)** • Determines the market price/ quantity sold **(1)** • Set by the free market/ price mechanism **(1)** • Price consumers willing to buy at is the same as the price producers are willing to sell at **(1)** • Leads to an efficient allocation of resources **(1)**	**(2)**

Q15.

Question	Define the term 'indirect tax' (Extract B, line xx). Answer	Mark
	Knowledge 2 1 mark for: • Expenditure/sales/consumption tax/tax added to the price of a good (1) And 1 mark for any 1 of the following: • Paid to the government through a third party (1) • Could be ad valorem or specific tax (1) • Increases costs (1) • Decreases supply (1) • Used to discourage consumption (1) • Examples of indirect taxed including VAT/excise duties/customs duties (1) • Ireland plans to introduce an indirect tax on clothing (1)	**(2)**

Q16.

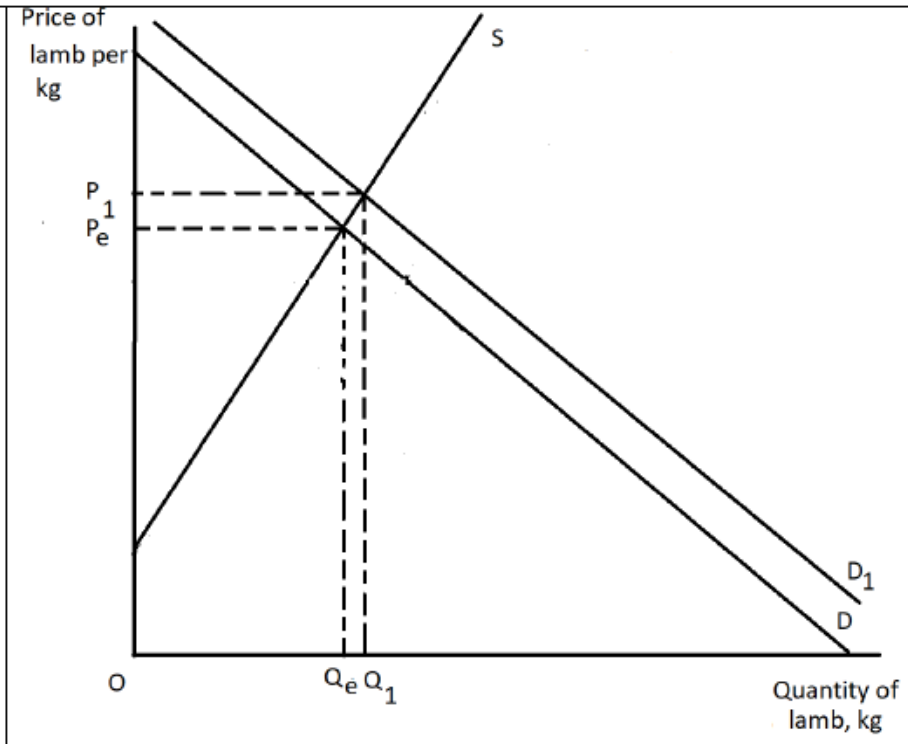
Question	With reference to Figure 1 and Extract A, analyse **one** demand factor *and* **one** supply factor that caused the price of fertiliser to increase between January 2021 and April 2022. Illustrate your answer with a supply and demand diagram. Answer	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium price and quantity **(1)** • New equilibrium price and quantity having correctly shifted both supply **and** demand **(1)** **Analysis** 1 mark for demand factor e.g.: • Demand for fertiliser increased by 6.3%/ • Governments paying subsidies to farmers during the global health crisis/ • Higher crop prices in 2021 provided an incentive for farmers to increase the quantity of crops that they grew **(1)** 1 mark for supply factor e.g.: • Poor weather caused some factories that manufacture fertiliser to shut down/ • Winter storms and Hurricane Ida disrupted production in the USA/ • Costs of production also rose as a result of a significant increase in the world price of gas **(1)** **Application** Up to 2 marks for diagram or reference to Figure 2.: • Shift demand to the right **(1)** • Shift supply to the left **(1)** • January 2021 price per tonne was just above $400 increasing to approximately $950 in April 2022 **(1)**	



(6)

Q17.

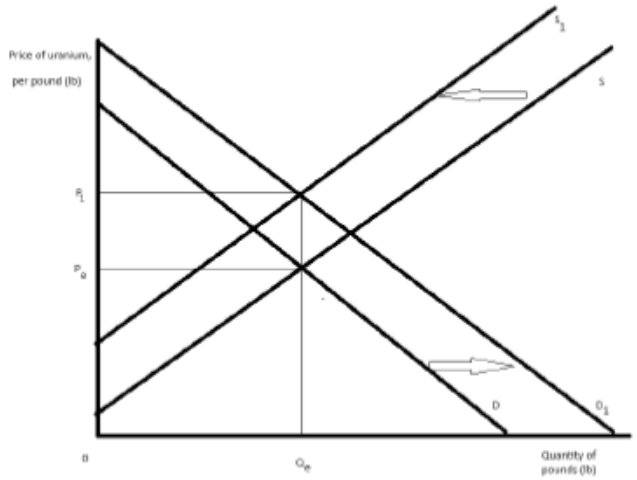
Question Number	With reference to Figure 2 and Extract A, analyse one reason why the price of lamb increased during 2017. Illustrate your answer with a supply and demand diagram. Answer	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical and tabular forms. **Knowledge** 1 mark for diagram showing original supply, demand and equilibrium **(1)**. 1 mark for identification of one reason from Extract A: • rising incomes / demand for Australian lamb rising 28%/ demand for lamb has risen in the USA/ advertising **(1)**. **Application** Up to 2 marks: 1 mark for the correct shift of demand on the diagram. 1 mark for interpreting data from Figure 2: • showing any change in price from 2017 e.g. from $5.00 in Jan 2017 to $5.80 in Dec 2017 **(1)**. NB accept reference to data from 2016 compared to 2017.	
	Analysis Award 1 mark for development of how one reason leads to higher prices, e.g.: • Rising incomes mean they may eat more meat and therefore buy more lamb/ with lamb being a normal good an increase in global incomes will increase demand for lamb **(1).** • Demand for lamb rising in the USA means more competition for lamb which pushes up the price **(1)**. • The advertising campaign will generate more awareness/ interest in lamb pushing up demand **(1).** • The increase in demand sees an extension of supply **(1).** • PLUS 1 mark for diagram showing final equilibrium with higher price **(1)**.	



(6)

Q18.

Question	With reference to Figure 1 and Extract A, analyse **one** demand factor and **one** supply factor that caused the price of uranium to more than double between January 2020 and September 2023. Illustrate your answer with a supply and demand diagram. **Answer**	**Mark**
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium price and quantity **(1)** • New equilibrium quantity and increased price **(1)** **Analysis** 1 mark for demand factor from Extract A: • Governments increasing nuclear power generation **/** • Unstable supply of gas and rise in its price **/** • Governments need to reduce carbon emissions **/** • Speculators bought significant amounts of uranium accounting for 25% of annual demand **(1)** 1 mark for supply factor from Extract A: • In France production was disrupted by a lack of critical chemicals **/** • Worlds largest supplier/Kazakhstan had problems with shipping its uranium out of the country **/** • Canada had problems at two mines that reduced production by 9% **(1)** **Application** Up to 2 marks for diagram or for reference to Figure 1.: • Shift demand curve to the right **(1)** • Shift supply curve to the left **(1)** • Figure 1- price rises from approximately \$24/25 to approximately \$53/54 per pound (lb) between January 2020 and September 2023 **(1)**	



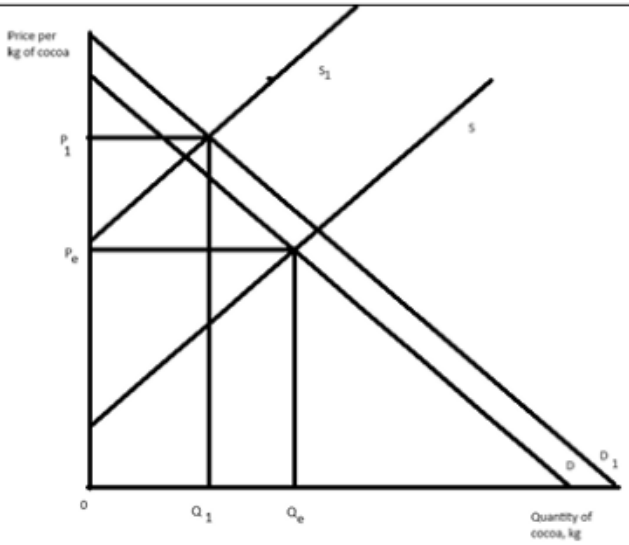
NB if two separate diagrams award maximum of 5/6 marks

NB- price must rise but quantity may rise, fall or stay the same

(6)

Q19.

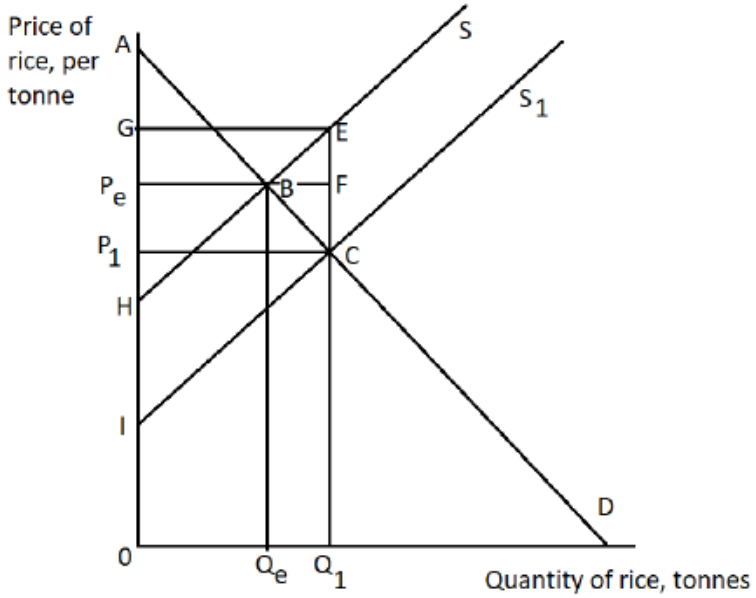
Question	With reference to Figure 1 and Extract A, analyse **one** supply factor and **one** demand factor that caused the price of cocoa to increase by approximately 68% between November 2022 and November 2023. Illustrate your answer with a supply and demand diagram. **Answer**	Mark
	Knowledge 2, Application 2, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** Up to 2 marks for the diagram showing: • Original supply, demand and equilibrium price and quantity **(1)** • New equilibrium quantity and increased price having shifted both demand and supply **(1)** **Analysis** 1 mark for **one** supply factor from Extract A: • Côte d'Ivoire 36.3% decrease in production / • Caused by swollen shoot disease on cocoa farms / • Flooding **(1)** 1 mark for **one** demand factor from Extract A: • More cocoa has been required by the chocolate and drinking chocolate markets / • There is growing evidence of the health benefits of cocoa so chocolate makers and drinking chocolate makers have been increasing the cocoa content in their products **(1)** **Application** Up to 2 marks for diagram or for reference to Figure 1.: • Shift supply to the left **(1)** • Shift demand to the right **(1)** • Figure 1- price rises from approximately $2.40 to $4.04 per kg between November 2022 and November 2023 **(1)**	



Supply and demand shift size may vary

(6)

Q20.

Question	With reference to Extract C, discuss the benefits of subsidies paid to rice growers. Illustrate your answer with an appropriate diagram. **Indicative content**
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited. **Quantitative skills assessed** **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge, Application and Analysis (8 marks) – indicative content** • Subsidies - cash grant to encourage production and consumption • Reduces costs of production for rice growers • Subsidy is used for capital goods, fertiliser and water Subsidy diagram 

	Consumers • Price paid lowers from P_e to P_1 • Consumer surplus increases from ABP_e to ACP_1 • Quantity consumed increases from Q_e to Q_1 Producers • Increase in amount received increases from $0P_e$ to 0G for each item sold • Producers' revenue increases from $0P_eBQ_e$ to $0GEQ_1$ • Producer subsidy is EFP_eG • Producers increase quantity sold, from Q_e to Q_1 Government • Increased welfare of its citizens as they can now access cheaper rice • Popular amongst farmers • Boosts export revenue income that can be used to buy capital goods and other imports • Boosts rice production creating economic growth Workers • Higher output, results in more workers being needed • Creates more job security whilst the subsidy is paid • Producers have more revenue so can afford to pay more

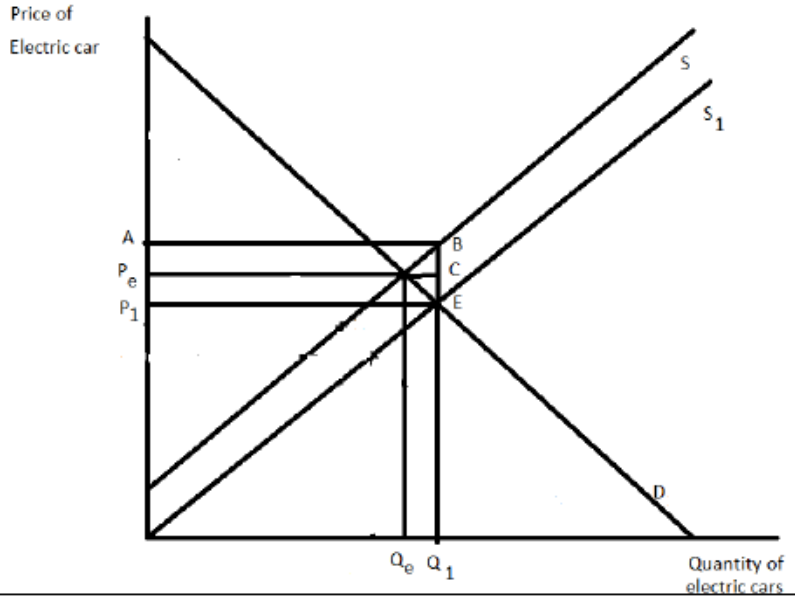
Level	Mark	Descriptor
	0	No rewardable material
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 3	7–8	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evaluation (6 marks) – indicative content • Magnitude- depends on the level of the subsidy set- if too low then little impact on economic agents Consumers • Higher output may cause land to become less fertile and quality of the rice to fall • Will not benefit those that prefer varieties grown in other countries • Depends on the proportion of rice that makes up an Indian consumer's diet Producers • May become reliant on the subsidy • May struggle if the subsidy is removed • May see a decline in the quality of the crop and the amount they can actually sell • Increased water use/fertiliser use reduces availability for farmers of other crops Government • Spending by the government will be the area ECP₁G, cost $6.9bn in 2021 • Opportunity cost- the money spent on rice subsidies cannot be used elsewhere • Removing the subsidies is difficult- resulted in mass protests and the subsidy was reinstated Workers • If the subsidy is removed and output falls- risk of job losses • May keep workers in low-skilled jobs for longer

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–2	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	5–6	Evaluation recognises different viewpoints and/or is critical of the evidence. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q21.

Question Number	Indicative content
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited. **Quantitative skills assessed** **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms

	Knowledge, Application and Analysis (8 marks) – indicative content • Definition of 'subsidy': - a cash grant to encourage production • Lowers the cost of production • $5000 subsidy paid per car to the manufacturer 

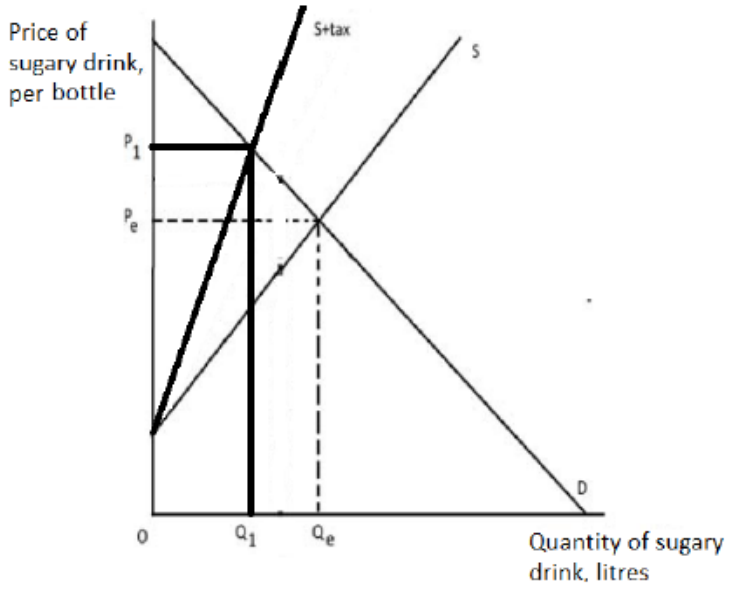
	• Supply shifts right S to S_1 • Price paid by consumers falls P_e to P_1 • Price received by producer increases from P_e to A • Consumer surplus increases • Producer surplus increases • Quantity of electric cars consumed increased from Q_e to Q_1 (from the current 2% of cars) • Size of the subsidy - costs to the government- $ABEP_1$ an opportunity cost • Consumer subsidy - P_eCEP_1 due to paying a lower price • Producer subsidy - $ABCP_e$ • Revenue, profits increase for electric car manufacturers • Electric cars are zero emissions so help reduce carbon emissions compared to petrol and diesel cars • Reduces external costs associated with driving cars • Road transportation accounts for 20% of Canada's carbon emissions- helps reduce the emissions from road transport • Moves closer to social optimum • Manufacturers of non-electric cars may experience lower sales, lower revenue, lower profits **Positive effects may be offered as KAA and negative effects as EV or vice-versa** **NB: if no diagram candidates can achieve a maximum of Level 2.**

Level	Mark	Descriptor
	0	No rewardable material
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has no chains of reasoning.
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Level 3	7–8	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

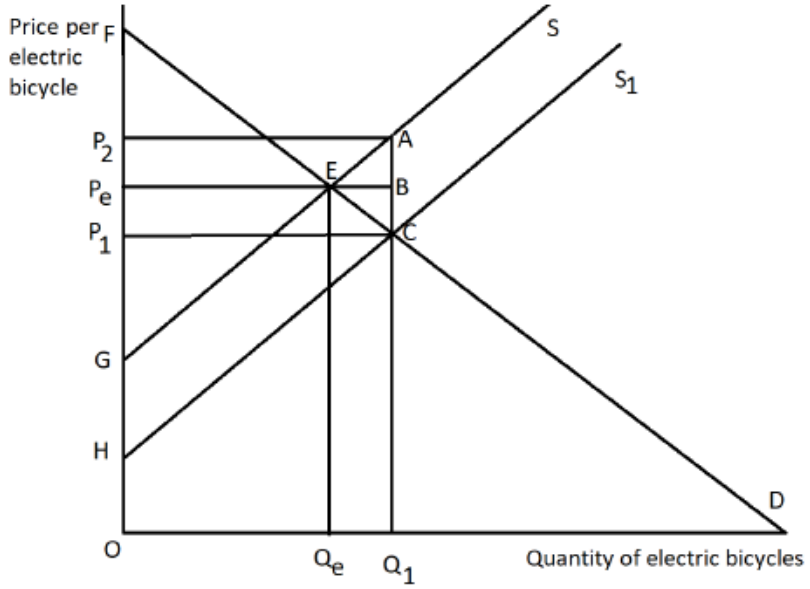
	Evaluation (6 marks) – indicative content • Only on cars valued under $45000 • Only applies to nine electric car models • Infrastructure not being in place may reduce the impact. Only 5800 charging points to share between 37 million people so difficulty in accessing charging points may reduce likelihood of people buying electric • Electric cars cause emissions. To produce an electric car battery requires twice as much energy compared with the production of a petrol or diesel car battery. The electricity used to power the electric vehicle creates emissions if the electricity is generated using fossil fuels like coal • The magnitude of the subsidy is substantial at $5000 • Impact will depend on the time that it takes to make payments/length of time the scheme operates • Electric cars are not a close substitute for petrol or diesel cars and people may not be happy to buy electric • The impact on price to consumers depends on PED - if price inelastic demand the price could fall sharply/if price elastic the price change will be smaller.	
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–2	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	5–6	Evaluation recognises different viewpoints and/or is critical of the evidence. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q22.

Question Number	In October 2017 the United Arab Emirates (UAE) introduced an indirect tax on energy drinks. The tax is charged at 50% of the price of energy drinks. Draw a diagram to illustrate the impact of the introduction of the indirect tax on the equilibrium price and quantity of energy drinks in UAE. Answer	Mark
	Knowledge 1, Application 3 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** • Original supply and demand diagram with correct original equilibrium **(1)** **Application** Up to 3 marks for the following information included on diagram: • Shifting supply to the left **(1)** • Including the new equilibrium quantity and price **(1)** • **And** for **pivoting** the supply curve **(1)**	

		**(4)**

Q23.

Question	Evaluate the economic effects of subsidising electric bicycles. Indicative content
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. **Knowledge, application and analysis (12 marks) – indicative content** • Definition of 'subsidy' – cash grant paid by the Government • Subsidy is €400 • Reduces the cost of production for electric bicycle manufacturers • Diagram showing the subsidy for electric bicycle manufacturers 

	• Originally the price paid by consumers was P_e but decreases to P_1 • Quantity of electric bicycles increases from Q_e to Q_1 • Consumer surplus increases from P_eEF to P_1CF. A change/ increase of P_eP_1CE - consumers benefit • Producer surplus increases from P_eEG to P_1CH • Government spending ACP_1P_2 • Consumer incidence BCP_1P_e • Producer incidence ABP_eP_2 • Profits generated by electric bicycle manufacturers may rise • Employment in electric bicycle manufacturers may rise • Encourage healthy lifestyles- cycling • Reduce the reliance on motor vehicles • Likely to lead to lower demand, price, quantity, producer surplus for motor vehicles • Leads to lower emissions and external costs associated with motor vehicles

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Limited application of knowledge and understanding to economic problems in context. A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.
Level 3	7–9	Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context, using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

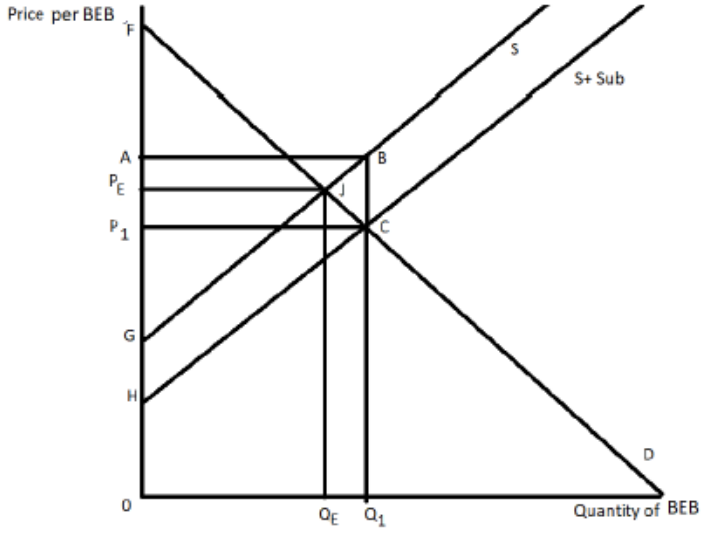
Evaluation (8 marks) – indicative content

- Size of subsidy is important. €400 is likely to cover most of the production costs so likely to have a large impact
- Measurement – it is hard to measure what the ideal subsidy should be
- May create government failure as over-investment in electric bicycles and resources wasted
- Subsidy may make electric bicycle manufacturers- inefficient as reliant/ dependent on subsidy
- May be better to increase consumption by giving information on the costs associated with motor vehicles and benefits of electric cycling.
- Time frame – people may take a long time to adjust their behaviour
- Opportunity costs - less funds available for other public services
- Better to support subsidies of alternative fuel cars

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7–8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q24.

Question	With reference to Extract B and your own knowledge, discuss the possible effects of a subsidy paid to manufacturers of Battery Electric Buses (BEBs). Illustrate your answer with an appropriate diagram. **Indicative content**
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited. **Quantitative skills assessed** **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge, Application and Analysis (8 marks) – indicative content** • Subsidy- cash grant paid to encourage production • $979 million allocated to subsidy for BEBs in the USA • Subsidy- decreases costs of production • Increases supply S to S+Sub • Decreases price P_E to P_1 • Increases quantity Q_E to Q_1 • Increases government spending- $ABCP_1$ • Government spending creates an opportunity cost leaving less for other areas of the economy • Consumer surplus increases FJP_E to FCP_1 • Producer surplus increases • BEB cost more than diesel buses and closes the gap • Will be cheaper to run/maintain BEB than diesel buses • Reduce pollution caused by diesel buses, reducing external costs- respiratory diseases, asthma and cancer- health costs lower/less noise pollution • Increase employment in BEB manufacturers • Decrease in employment in diesel bus manufacturing • BEB manufacturing of batteries cause external costs Diagram



NB Level 3 response requires a diagram
NB Do not reward externalities diagrams
NB Positive effects may be presented as KAA and negative effects as evaluation, or vice versa

G	Mark	Descriptor
	0	No rewardable material
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 3	7–8	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.
	Evaluation (6 marks) – indicative content • Magnitude- $979 million will help subsidise many BEB in the USA	
	• Value of PED is important, if firms demand for diesel buses are inelastic they may not substitute to BEB • Depends on the cross elasticity of demand, if close substitutes firms may substitute to BEB • Time lag- short run impact limited as it takes time to manufacture BEB so long run before impact felt • Still use electricity which may use fossil fuels • Can only travel 150 miles on a fully charged battery • Price of a BEB $887 000 compared to diesel $480 000- so even with subsidy price is much higher • Infrastructure spending will be needed	

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–2	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	5–6	Evaluation recognises different viewpoints and/or is critical of the evidence. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q25.

Question Number	Answer	Mark
	Knowledge 2, Application 2, Analysis 2, Evaluation 2 Quantitative skills assessed: **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	

	Knowledge and Analysis 1 mark for knowledge of indirect taxation, e.g.: • Definition of indirect taxation: expenditure taxation **(1)** Up to 2 marks for identifying two effects and up to 2 marks for linked explanations showing the impact of high indirect taxation, e.g.: • Indirect taxation causes the supply curve shift to left leading to higher price paid by consumers/as a result of higher costs to firms **(1+1)** • The equilibrium quantity will decrease compared to market equilibrium meaning consumption of petrol will fall **(1+1)** • External costs will fall as the tax moves us from the market equilibrium towards the social optimum **(1+1)** • The taxation revenue earned by the government can fund the tackling of external costs associated with petrol consumption **(1+1)** • Firms paying the tax will face higher costs resulting in a fall in profits **(1+1)** • With the high price the gap between what consumers are willing to pay and the market price will fall **(1+1)** • Producer surplus will fall as supply decreases **(1+1)** • High level of taxation may cause government failure if it causes the unintended consequence of smuggling from countries near India with lower taxation **(1+1)** • High levels of taxation may reduce external costs by moving us closer to the social optimum **(1+1)** (Reward relevant diagrammatic analysis)	

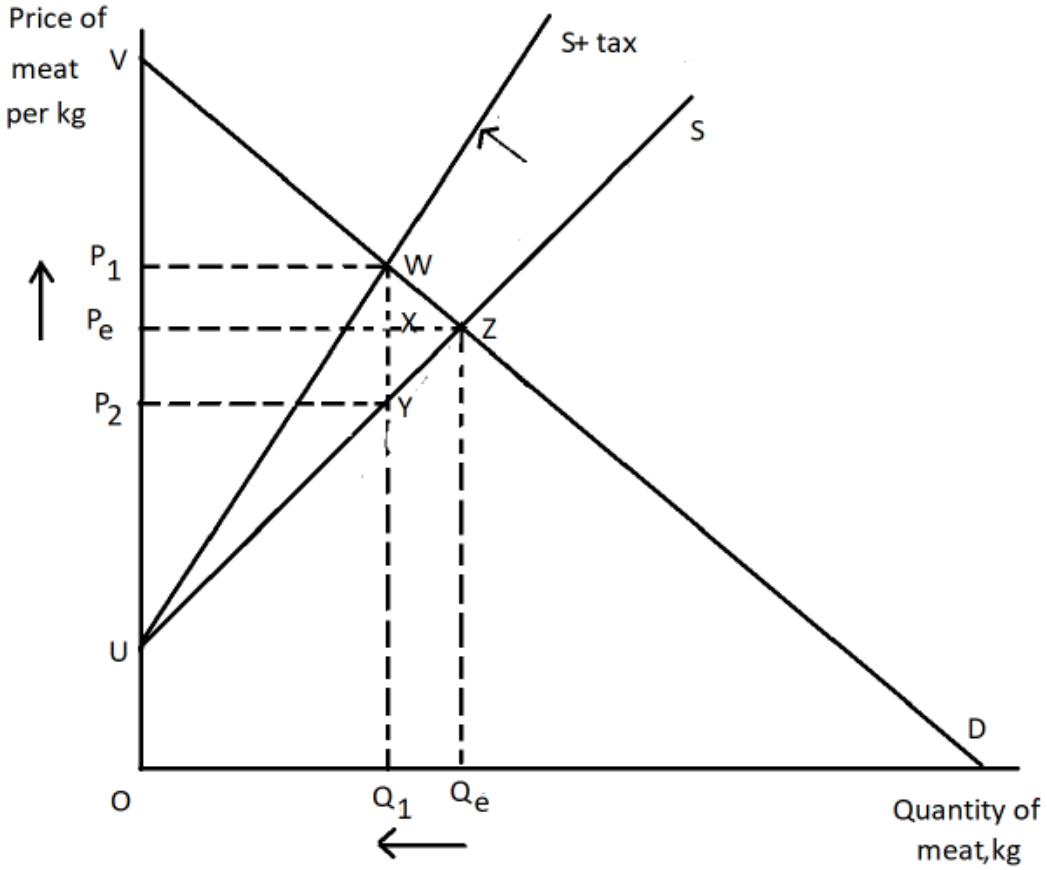
	Application Up to 2 marks for reference to the given sources, e.g.: • Indirect taxation is almost half of the price of petrol and diesel **(1)** • 'The significant fall in the global oil prices only resulted in a 7% decrease in the price of petrol and diesel' **(1)** **Positive effects may be offered as KAA and negative effects as EV or vice-versa** **Evaluation** Up to 2 marks for evaluative comments, e.g.: • This is a substantial taxation at almost 50% of price of petrol/diesel so will have a significant impact on price **(1+1)** • The tax makes up a large proportion of the price because the substantial fall in oil prices has only resulted in a small reduction in price of diesel and petrol **(1+1)** • Elasticity of demand is likely to be highly inelastic suggesting impact on quantity will be relatively small **(1+1)** • Health benefits will occur if external costs fall showing a positive impact of the taxation **(1+1)**	**(8)**

Q26.

Question Number	With reference to Extract B, discuss the likely effects of the introduction of an indirect tax on meat. Illustrate your answer with an appropriate diagram. Indicative content
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited. **Quantitative skills assessed** **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical and tabular forms.

Knowledge, Application and Analysis (8 marks) – indicative content

- Definition of 'indirect taxation' – tax on expenditure.
- Identification of ad valorem tax as percentage tax.
  - Indirect tax adds to production costs of meat producers.
  - Diagram of showing the introduction of an indirect tax on meat.



	• Originally the price paid by consumers was P_e but rises to P_1 • Revenue earned by meat producers per unit sold falls from $P_e \times Q_e$ to $P_2 \times Q_1$ • Consumer surplus falls from P_eVZ to P_1VW. A change/ Reduction of P_eP_1WZ. • Producer surplus falls from P_eUZ to P_2UY. • Government revenue earned from the tax P_1P_2YW. • Consumer incidence P_eP_1WX. • Producer incidence P_eP_2YX. • Quantity of meat consumed will fall from Q_e to Q_1 • External costs reduced: o Reduced greenhouse gas emissions o Reduced water pollution o Reduced chance of resistance to antibiotics o Reduced damage to health- obesity, diabetes and cancer- reducing costs to health services • Welfare loss from overconsumption will be reduced. • Deadweight loss WYZ. • Helps to meet Paris agreement target on carbon emissions. • 40% tax on beef, 20% on dairy products and 8.5% on chicken would save 500 000 lives a year and reduce emissions. • Total revenue earned by meat producers may fall. • Profits generated by meat producers may fall. • Employment in meat production may fall. • Impact on consumers living standards with such a large tax.

Level	Mark	Descriptor
	0	No rewardable material
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 3	7–8	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evaluation (6 marks) – indicative content • Magnitude of size of tax is important. Suggested 40% tax on beef significant so likely to have a large impact. • Measurement – it is hard to measure what the ideal tax rate is for each meat/ Hard to measure the external costs associated with each meat. • Farmers/ meat producers may earn less income and lead some to leave the industry. • May create government failure as some may trade illegally to avoid or evade taxation. • Demand for some meats may be price inelastic meaning little change in quantity demanded; larger change in price, larger consumer incidence. • Indirect tax affects lower income families more as the tax will represent more of their total income.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–2	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	5–6	Evaluation recognises different viewpoints and/or is critical of the evidence. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q27.

Question Number	The table shows the quantity of bottled water supplied and the quantity of bottled water demanded at different prices. An advertising campaign results in an increase in demand of 100 bottles of water at each price. Using the data in the table, calculate the equilibrium price for bottled water after the advertising campaign. Show your workings. You may wish to use the last column in your calculation.	Mark

Knowledge 1, Application 3

Quantitative skills assessed:
QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.

Knowledge

1 mark for defining what equilibrium is

Equilibrium is found where supply and demand intersect/ balance **(1)**.

Quantity demanded and supplied are the same **(1)** (may be shown on a diagram)

Application

Up to 2 marks for completing the final column. One for ¥12 and one for any other calculation:

Price of bottled water (yuan)	Original quantity demanded	Original quantity supplied	New quantity demanded
¥10	700	200	800
¥11	600	300	700
¥12	500	400	600
¥13	400	500	500
¥14	300	600	400

One mark for explaining where equilibrium occurs

Equilibrium occurs at a price of ¥13 **(1) +1 K mark for implied understanding of equilibrium**

NB: if correct answer (¥13) is given, award full marks regardless of working.
If currency (¥) is missing but 13 is given award 3.

(4)

Q28.

Question Number	In 2019, the price of a litre of diesel was 65% higher in Thailand than in Malaysia. The price difference was because of higher taxation on diesel in Thailand. This led to illegal smuggling. For example, on one night, Thai authorities seized 300 000 litres of diesel that was illegally imported from Malaysia. Evaluate possible causes of government failure in a market of your choice. Indicative content
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited.

	Knowledge, application and analysis (12 marks) – indicative content • Government failure– where government intervention leads to a net welfare loss Possible causes of government failure include: • Information gaps- where the government lacks perfect information and sets the wrong level of regulation/taxation/subsidy • Lack of incentives- where the policy fails to create the incentives for firms and consumers to change their behaviour appropriately • Unintended consequences- where a policy leads to an outcome that was not anticipated, this could include smuggling • Excessive administrative costs- where the costs of administering the regulation or tax are greater than any benefit of the government intervention • Moral hazard- where the costs of an action are likely to be experienced by someone else causing riskier actions Possible responses linked to the stem • The 65% higher price in Thailand gives those in Thailand the incentive to travel to Malaysia to buy cheaper diesel • Even taking in to account the costs associated with travelling the significant difference in price means this activity can be profitable • The returns may be so large that smugglers are willing to take the risk of being caught • 300 000 litres in one night suggests that the smuggling is commonplace • Diesel will have the same properties in both countries so the appearance and smell will be identical making it difficult to discover its origins • This makes it easier to smuggle undetected • If the value of smuggling if greater than the tax revenue earned then this is an example of government failure • Smuggled diesel results in a loss of tax revenue to the Government • If the smuggling funds organised crime then this could be a further unintended consequence **NB Maximum Level 3 if candidate does not refer to at least two causes of government failure related to a market of their choice**

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Limited application of knowledge and understanding to economic problems in context. A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.
Level 3	7–9	Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context, using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evaluation (8 marks) – indicative content Evaluation should be rewarded when linked to the relevant cause of government failure • Information gaps • Lack of incentives • Excessive administrative costs • Moral hazard Evaluation linked to stem • Measurement problem- difficult to value the level of smuggling as it goes unrecorded • Magnitude- sizeable tax so likely to have a large impact on generating smuggling • Depends on efforts to detect • Depends on punishment as to whether it continues • Possible rewards of smuggling may far exceed any penalties • Time- the current efforts to detect smuggling may in time reduce the unintended consequence • Malaysian sellers of diesel will earn more revenue and the Malaysian Government more tax revenue

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7–8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q29.

Question Number	Between 2000 and 2019 in China the average price of a house increased from 4 000 yuan per square metre (m^2) to 60 000 yuan per m^2. The ratio of average house prices to average incomes increased from 5.6 to 7.6, showing that houses were becoming less affordable. Evaluate the impact of market bubbles in the housing market. Indicative content
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.

	Knowledge, application and analysis (12 marks) – indicative content • Define market bubble- a sustained rise in the prices of financial assets such as housing and equities which takes values will above long-run sustainable levels /where the value increases above the true value/ prices can be driven by expectations of future price increases attracting new buyers to the market/rapid price rise will eventually be followed by a crash when prices fall significantly • In China the price per m^2 has increased from 4 000 yuan to 60 000 yuan between 2000 to 2019/1 400% increase in price over 20 years/ increased 56 000 yuan • House price to income ratio has increased from 5.6 to 7.6 showing that house price has gone from being 5.6x to 7.6x the person's income • Low/middle income families will find it increasingly difficult to purchase a house • High house prices will see banks lending more money helping them to generate more revenue and profits • The construction sector will benefit from increased demand to build more houses/property • If the bubble bursts the construction sector would suffer significantly with unemployment likely • Rising house prices in one area that are faster than another may make it harder to move between locations • When the bubble bursts the price will return to a value that reflects the fundamental value • The housing bubble will see house prices rise creating consumer confidence and increase consumption of other goods and services • Risk of housing market bubble bursting if interest rates rise, credit become less available or consumer confidence falls • If the bubble bursts then the falling price of houses will see falling consumer confidence and less consumption of other goods and services- knock on effects on construction industry/lenders • House price rises increase the wealth of house/property owners and those that do not own houses and instead rent will not see the same increases in wealth **NB Must make reference to the housing market to achieve Level 4** **Must make a reference to bubbles bursting/corrections to achieve Level 4**

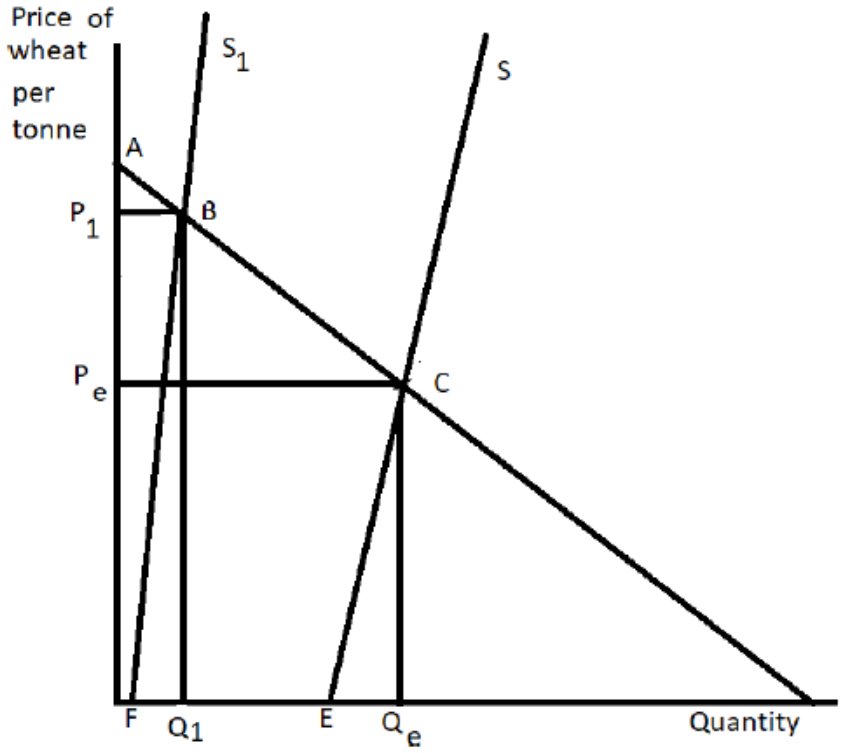
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models. Limited application of knowledge and understanding to economic problems in context. A narrow response or superficial, only two-stage chains of reasoning in terms of cause and/or consequence.
Level 3	7–9	Demonstrates accurate knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer. Analysis is clear and coherent. Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evaluation (8 marks) – indicative content • Measurement problem – difficult to measure how much of the price change reflects the fundamental value of housing and how much links to speculative investment in housing • Magnitude – this is a significant rise in price of housing so likely to have a large impact • Time frame – whilst the price may continue to rise in the long run there is likely to be a correction if the price rises too far and the price may crash • It is likely that with rapid economic growth through the period 2000 and 2019 much of the growth will reflect the economy's excellent performance • Depends on whether house ownership is significant or whether people rent instead • Affordability may not be an issue as wages will have also grown substantially • An economy will double in size in 10 years with economic growth of 7%, so likely that with high economic growth for much of this period the economy will be many times bigger and this might reflect a fundamental increase in the value of housing • The data does not make it clear whether this is a change in the nominal house price or real house price. If this is a nominal value then the price change is likely to have less significance

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7–8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q30.

Question	Evaluate the impact of the 400% increase in the cost of fertiliser on farmers and households. Include one diagram to show the impact on farmers in your answer. **Indicative content**
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Indicative content guidance** Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited. **Knowledge, application and analysis (12 marks) – indicative content** 400% increase in costs Farmers • Increased costs of production • Supply shifts left, S to S_1 • Demand contracts • Price increases, P_e to P_1 • Quantity decreases, Q_e to Q_1 • Decreased consumer surplus, ACP_e to ABP_1 • Decreased producer surplus • Some may exit the market as profits fall • If less fertiliser is used, productivity may fall leading to a fall in income for farmers



Households

- 38% increase in global food price index
- Pay more in farm shops/for food in supermarkets
- Consumer surplus falls
- Food less affordable
- Demand for food very price inelastic meaning that consumers spend a higher proportion of their income on food
- Less income left to spend on other (non-food) goods and services
- Decrease demand for other goods e.g. electronics and entertainment

NB Maximum Level 3 if farmers or households omitted

NB Maximum Level 3 if no relevant diagram drawn

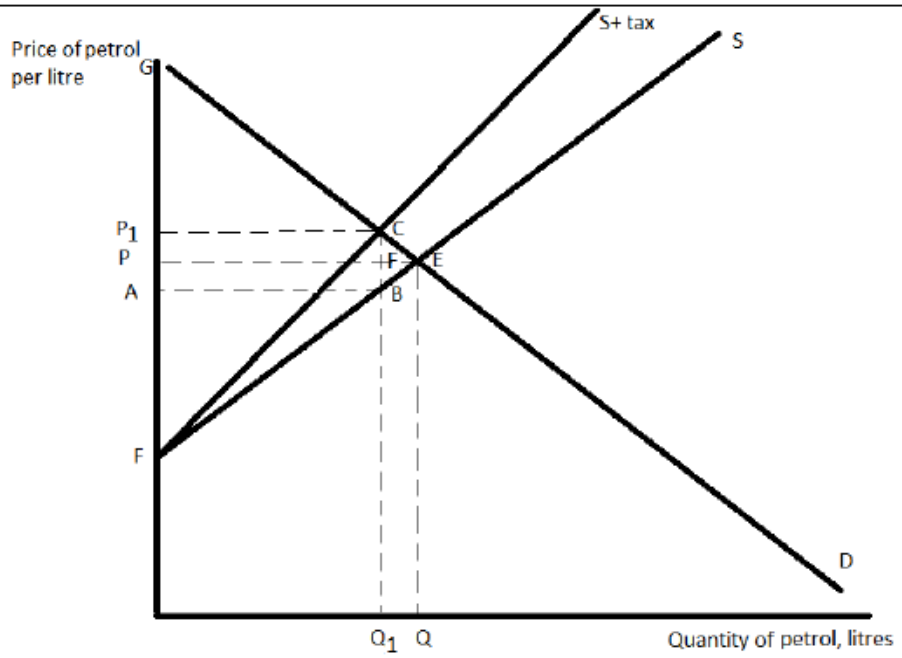
Level	Mark	Descriptor
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Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has no chains of reasoning.
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Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evaluation (8 marks) – indicative content • Magnitude of the increase in fertiliser costs is significant so the impact on costs is large • The magnitude of the increase in the global food price index is much smaller than the increase in the cost of fertiliser/represents significant costs to households • Depends on the proportion of total production costs that are accounted for by fertiliser • The impact will depend on how long the prices remain high • Organic farmers who do not use fertiliser will benefit as their competitors producing non-organic good will suffer • Depends on how other costs change • Use of fertiliser may fall- reducing external costs of production- impact on wildlife • Farmers may absorb some of the increases in costs and not pass on price increases • Price elasticity of demand- if inelastic there will be only small changes in quantity • Impact greatest on low-income households as food costs will make up greater proportion of income • Government policy can alleviate the issue- accept specific examples

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7–8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q31.

Question Number	Indicative content
	Indicative content guidance Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. **Knowledge, application and analysis (12 marks) – indicative content** • Indirect tax– expenditure tax • Ad valorem tax- defined • Specific tax- defined • Increases costs of production of firms selling petrol • Supply falls • Customers pay a higher price • The quantity consumed will be lower • Less external costs associated with petrol consumption/ production • People may buy in cheaper countries like Germany/ may lead to smuggling- Germany may benefit and the Netherlands lose out • Government failure if costs associated with intended consequences exceed benefits of reduced consumption • Incentive to substitute to hybrid/ electric/ hydrogen powered vehicles/ public transport/ bikes/ walking • Government revenue earned- can be used to fund improvements in public transport and roads • Increased demand for public transport • Impact on sectors reliant on road transport • Diagram may show ad valorem or specific tax



Impact on business

- Price received by the business is lower at A
- Quantity lower at Q_1
- Incidence of tax on producer per unit – AP/ Producer incidence ABFP
- Reduced producer surplus

Impact on consumers

- Price paid higher at P_1
- Incidence of tax on consumer per unit - PP_1/ consumer incidence $CFPP_1$
- Reduced consumer surplus

Impact on government

- Government revenue $ABCP_1$
- Funds that can be used elsewhere- e.g. roads

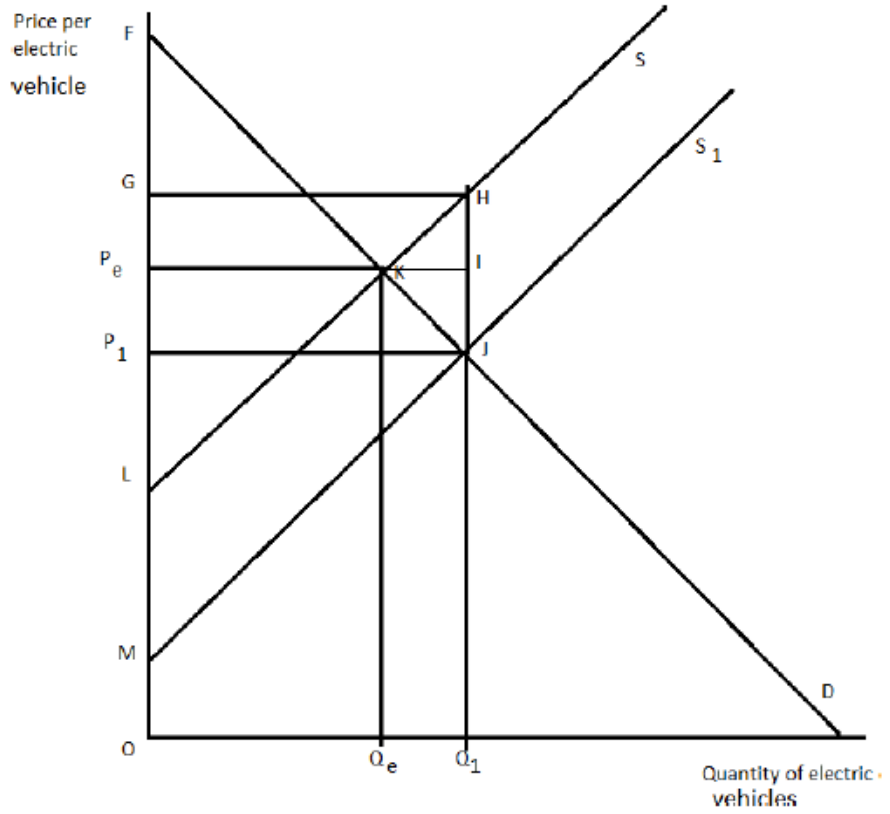
Level	Mark	Descriptor
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	Evaluation (8 marks) – indicative content • Magnitude- 68% of the price charged is indirect tax- significant impact • Germany at just 59% may make it attractive to purchase in Germany but only for those close to border • Changed in behaviour to alternative fuels may take a very long term • Demand is likely to be highly inelastic so even if tax means higher price the quantity demanded will fall less than proportionately • Tax evasion/ avoidance may reduce tax revenues • Difficult to measure the correct indirect tax that should be charged • Electric cars may still be significantly more expensive than petrol cars so there will be little impact on the demand for petrol • Public transport is less convenient for the consumer leading to less consumer substituting • Depends on how significant petrol taxes are as a proportion of total business costs e.g. significant issue for logistics/delivery companies • Impact of the tax may affect those on different income levels differently

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
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Level 3	7–8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q32.

Question	In 2022 General Motors received a $1 billion subsidy from the US Government to open two new electric vehicle factories in the USA. This was expected to generate 4 000 new jobs. Evaluate the microeconomic effects of subsidies paid to electric vehicle manufacturers. Include at least one appropriate diagram in your answer. **Indicative content**
	Quantitative skills assessed **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Indicative content guidance** Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited. **Knowledge, application and analysis (12 marks) – indicative content** • Subsidy- cash grant paid to encourage production • Reduces electric vehicle manufacturers' costs of production • Generates 4 000 new jobs in the USA • The cost per job created is $250 000



- Price of electric vehicles reduces P_e to P_1
- Quantity of electric vehicles increases Q_e to Q_1
- Subsidy costs the government $GHJP_1$
- Consumer subsidy P_eIJP_1
- Producer subsidy $GHIP_e$
- Consumer surplus increases FKP_e to FJP_1/ increases by P_eKJP_1
- Producer surplus increases
- With higher electric vehicle production- the diesel or petrol vehicle market may suffer/decline
- Employment in the diesel/petrol market may decrease
- General Motors experienced much lower costs, higher profit/producer surplus/invest more in USA
- More electric vehicles reduces environmental damage as compared with diesel/ petrol vehicles

NB Award maximum of Level 3 if no diagram included

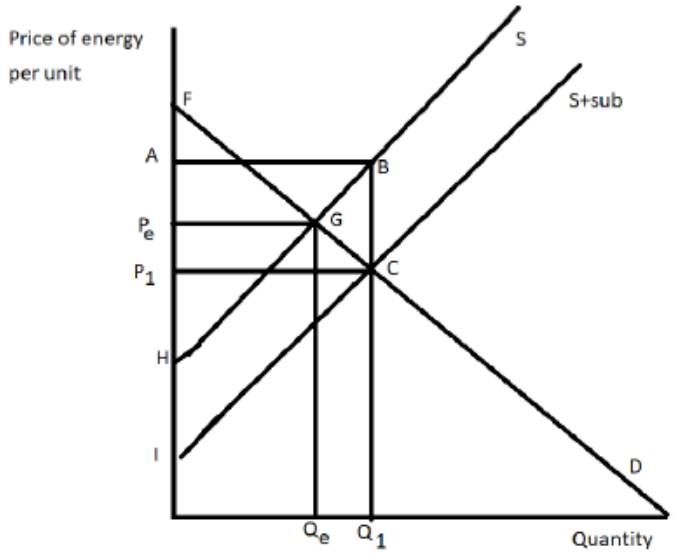
Level	Mark	Descriptor
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Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evaluation (8 marks) – indicative content
	• Opportunity costs as the $1 billion given to General Motors cannot be spent on improving healthcare for the poor or spending on education • If subsidies are paid to other electric vehicle manufacturers then the costs would be substantially higher • Electric vehicle manufacturers may become dependent on subsidies • Electric vehicle manufacturers may become complacent and less focused on cutting costs • Two new factories being built cause environmental damage • Is it fair on other vehicle manufacturers outside the USA that do not receive subsidies? • Magnitude of the subsidy is substantial- although General Motors still have to spend billions starting production at these factories • Production may be capital intensive meaning few people are employed • External benefits 4 000 additional employees spending in local businesses • Other indirect employment from suppliers to General Motors so more than 4 000 new jobs are created • Balance the job losses in petrol and diesel with the job creation at General Motors • Electric vehicles still need electricity to be generated and if this is generated using fossil fuels then environmental costs are higher than first thought

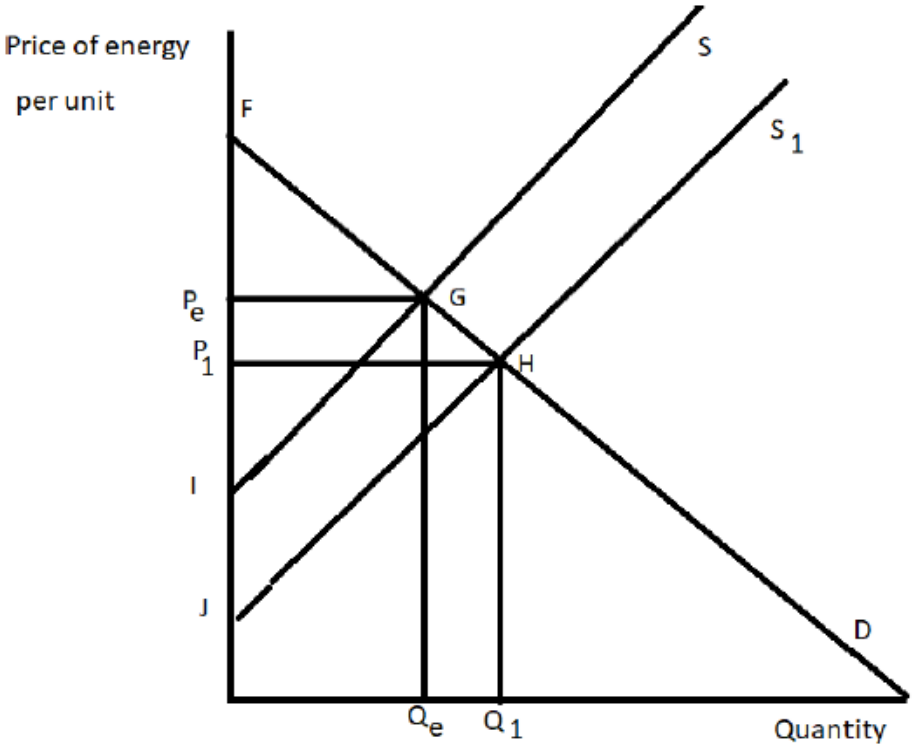
Level	Mark	Descriptor
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Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
Level 3	7–8	Evaluation recognises different viewpoints and/or is critical of the evidence, leading to an informed judgement. Appropriate reference to evidence/context. Evaluation is supported by a logical chain of reasoning.

Q33.

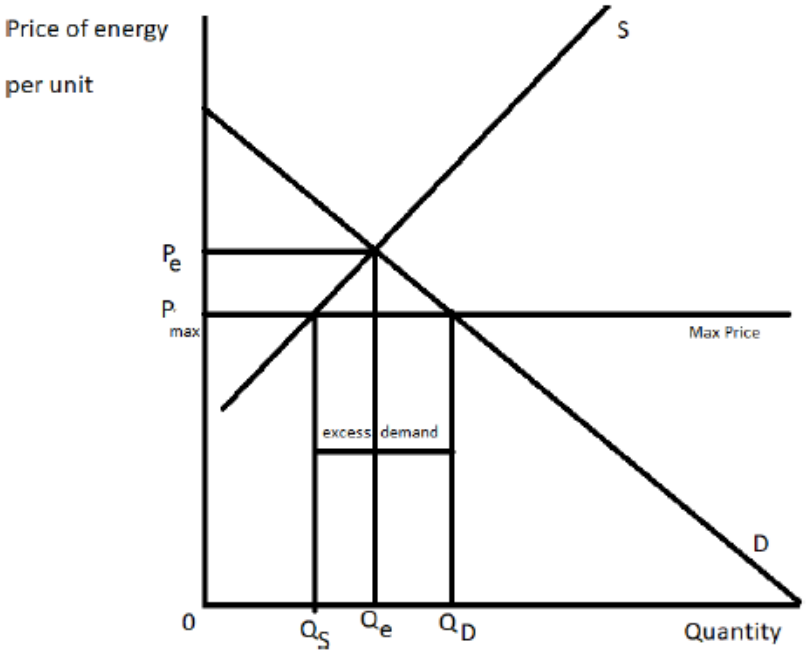
Question	Evaluate **two** possible measures that could be introduced to reduce the price that consumers pay for energy. Include at least one diagram in your answer. **Indicative content**
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Indicative content guidance** Answers must be credited by using the level descriptors (below) in line with the general marking guidance. The indicative content below exemplifies some of the points that candidates may make, but this does not imply that any of these must be included. Other relevant points must also be credited. **Knowledge, application and analysis (12 marks) – indicative content** Possible measures include: • Subsidies to energy producers o German government o Lowers costs of production o Shifts supply to the right S to S+sub o Decreases price charged to consumers P_e to P1 o Increases quantity of energy available to consumers, Q_e to Q_1 o Consumer surplus will increase from FGP_e to FCP_1 o Producer surplus will increase o Cost of subsidy to the government $ABCP_1$



- Decrease in indirect taxes- expenditure tax charged on consumption of energy
  - Spanish government
  - Lowers costs of production
  - Shifts supply to the right, S to S_1
  - Decreases price charged to consumers P_e to P_1
  - Increases quantity of energy available to consumers, Q_e to Q_1
  - Consumer surplus will increase from FGP_e to FHP_1
  - Producer surplus will increase GIP_e to HJP_1
  - Reduced tax revenue for the government



- Maximum prices- price ceiling above which firms cannot charge
  - French government
  - Set below the market equilibrium price, at Pmax
  - Causes extension of demand due to lower prices, Q_e to Q_D
  - Risk that firms may contract supply- Q_e to Q_s / exit the market due to reductions in revenue and profits
  - May be excess demand/shortage
  - Consumer surplus will increase only if supply is maintained
  - Producer surplus may fall at lower price



Accept other relevant measures that help lower price or support consumers e.g. regulation, state provision, provision of information

NB Reward the best two measures only

NB Maximum Level 3 if only one measure

NB Maximum Level 3 if no relevant diagram drawn

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach which has no chains of reasoning.
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Level 4	10–12	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models. Ability to link knowledge and understanding in context, using appropriate examples which are fully integrated to address the broad elements of the question. Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.

	Evaluation (8 marks) – indicative content
	• Subsidies-
	  ○ The impact on price depends on the size of the subsidy
	  ○ Firm in receipt to subsidy may become complacent
	  ○ If a long-term problem then subsidies needed for a long time
	  ○ Subsidy represents an opportunity cost- money could be spent elsewhere
	  ○ Information failure- government does not know the ideal level for the subsidy
	  ○ Government failure- government intervention leads to a net welfare loss
	  ○ Depends on the significance of price elasticity of demand- likely to be inelastic limiting the impact on change in quantity/resulting in a significant reduction in price
	  ○ PES likely to be inelastic with little change in quantity/resulting in a significant reduction in price
	  ○ With both supply and demand being inelastic, the impact on price is significant

	• Decrease in indirect taxation
	  ○ Depends on the size of the tax decrease
	  ○ Although the price should decrease no guarantee this will be passed on to consumers
	  ○ If price increases are a long-time problem indirect tax will need to be available for an extended period
	  ○ With higher market prices the government may earn more tax revenue despite lowering the tax rate
	  ○ Information failure, therefore may not know the ideal rate of taxation
	  ○ Government failure if it leads to net welfare loss
	  ○ Depends on the significance of price elasticity of demand- likely to be inelastic limiting the impact on change in quantity
	  ○ PES likely to be inelastic with little change in quantity
	  ○ With both supply and demand being inelastic, the impact on price is significant

	• Maximum prices-
	  ○ The maximum price will result in reduced profitability for suppliers resulting in some leaving the market causing supply issues in the future
	  ○ Consumers may be worse off if they struggle to find a supplier
	  ○ Government may face difficulty in setting the maximum price because of information gaps (government failure)
	  ○ Unintended consequences may emerge (government failure)
	  ○ Legislation likely to exist that prevents consumers losing supply
	  ○ Value of PED and PES will impact the size of change in quantity
	• All measures lower prices and encourage consumption resulting in environmental damage
	• Candidates may consider the relative effectiveness of the measures offered
	
	Accept evaluation of other measures that reduce price or help consumers

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. Evaluation is supported by a partially-developed chain of reasoning.
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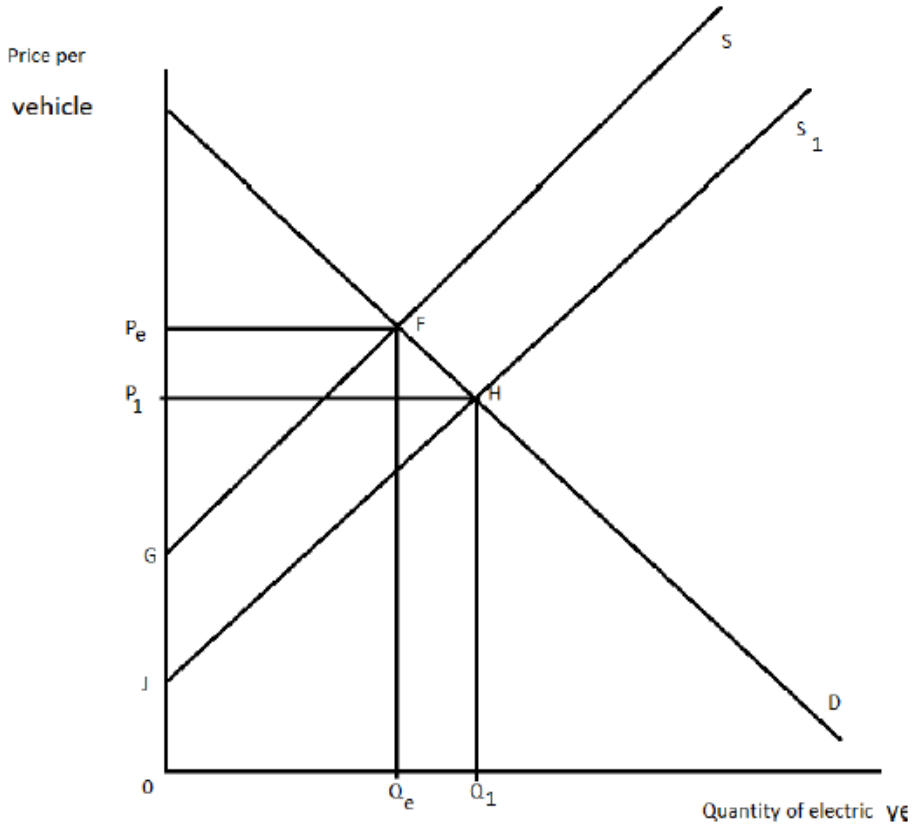
Q34.

Question Number	With reference to Extract B, examine **two** possible effects of information gaps on the consumption of sugar. Answer	Mark
	Knowledge 2, Application 2, Analysis 2, Evaluation 2 **Knowledge and Analysis** 1 mark for knowledge of information gap, e.g.: • Definition of information gaps: where an economic agent lacks information **OR** • Definition of asymmetric information: where one economic agent holds more information than another economic agent **(1K)** Up to 2 marks for identifying two effects (2) and 1 mark for linked expansion of each effect of information gaps (2), e.g.: • People being unaware of the recommended amount of sugar **(1K)** means they consume amounts in excess of the recommendation **(1AN)** • Consumers being unaware of the risks associated with excess sugar **(1K)** will put themselves at greater risk of depression/cancer **(1AN)** • Producers may know more about the impact of sugar consumption than consumers **(1K)** and may not make the public aware of this in order to avoid losing consumers **(1AN)** • The overconsumption will put additional pressure on health services **(1K)** who have to treat more cases of cancer, depression and obesity **(1AN)** • Manufacturers may continue to add sugar to recipes **(1K)** knowing many consumers do not know their damaging impact **(1AN)**	

	Application Up to 2 marks for reference to the given sources, e.g.: • There is overconsumption of sugar **(1)** 73 grams per day against a recommendation of 50 grams per day **(1)** • Consumers may be unaware of how sugar consumption contributes to obesity **(1)** as how the body processes excess sugar to fat **(1)** • People are unaware of the risks associated with a high sugar diet **(1)** **Evaluation** Up to 2 marks for evaluative comments, (2+0, 1+1) e.g.: • There are different sugars and some may be better for you than others **(1)** and consumption of these may not be so damaging **(1)** • The issue of information gaps may reduce over time **(1)** With the internet closing the information gap **(1)** • Magnitude: the extent to which people are unaware of the damage caused by sugar consumption **(1)** may be significant/insignificant for different groups **(1)** • Difficult to measure the size of the gap **(1)** as people may know the risks but be willing to take a chance **(1)** • Extra sugar consumption may have a time delay **(1)** before impact is felt **(1)** • Sugar is addictive **(1)** so consumers may be unable to stop consuming it **(1)**	**(8)**

Q35.

Question	*Ceteris paribus*, explain the likely impact of this change in production costs on producer surplus in the electric vehicle market. Illustrate your answer with a supply and demand diagram **Answer**	**Mark**
	Knowledge 1, Application 1, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for definition of producer surplus e.g.: • The difference between the market price and the price at which the suppliers are willing to sell/the cost of supply **(1)** **Application** 1 mark for correct shift of supply to the right **(1)**	



Analysis

Up to 2 marks for showing the change in producer surplus

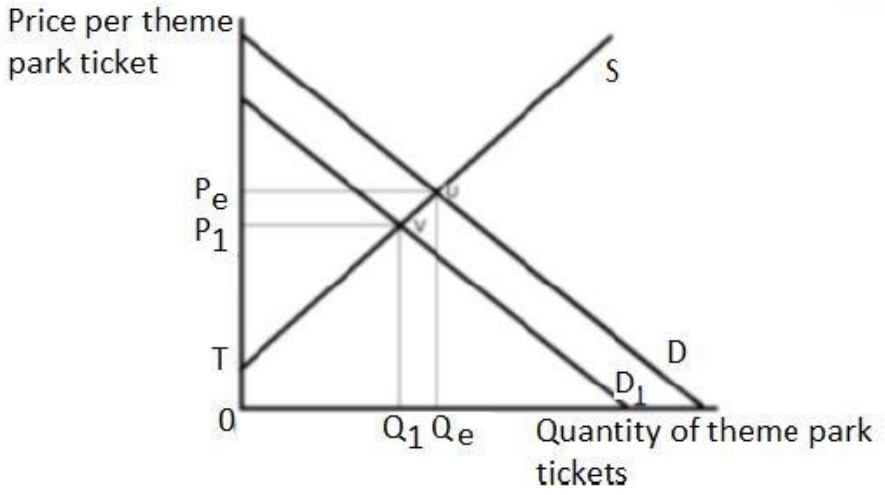
Old producer surplus FGP_e **(1)**

New producer surplus HJP_1 **(1)**

Producer surplus increases **(1)**

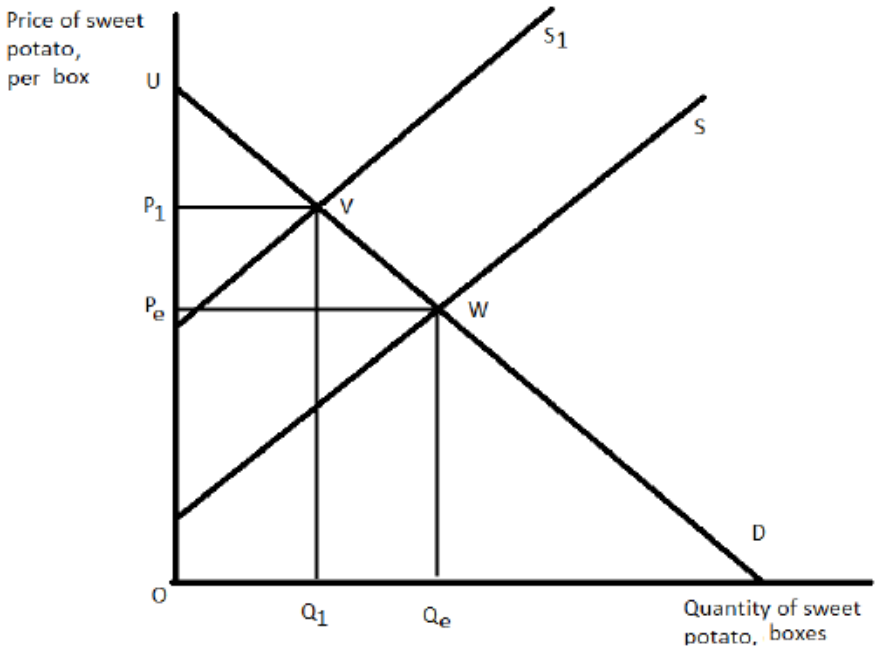
(4)

Q36.

Question	*Ceteris paribus*, explain the likely impact of this decrease in visitor numbers on the producer surplus for Legoland. **Answer**	Mark
	Knowledge 1, Application 1, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** • 1 mark for definition of producer surplus e.g.: Producer surplus – the difference between the price charged and the price the firm is willing to sell at/above the supply line and below the equilibrium price **(1)** **Application** 1 mark for shifting demand to the left **(1)**  **Analysis** Up to 2 marks for showing the change in producer surplus Original producer surplus decreased from P_eUT **(1)** to P_1VT **(1)** **Or** Producer surplus decreases **(1)** by P_eP_1VU **(1)** Shaded reduction in producer surplus **(1)**	**(4)**

Q37.

Question Number	Between August 2018 and August 2019 the world price of sweet potatoes increased from $12 to $22.50 per box. This was caused by Hurricane Florence and heavy rains in the USA, the world's largest supplier. Explain the likely impact of this change in price on consumer surplus in the market for sweet potatoes. Illustrate your answer with a diagram. Answer	Mark
	Knowledge 1, Application 1, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **Knowledge** 1 mark for defining consumer surplus • Consumer surplus is the difference between the price which consumers are willing to pay and the market price **(1)** **Application** 1 mark for the following diagram, showing the correct shift in supply	



Analysis

Up to 2 marks for likely impact on consumer surplus

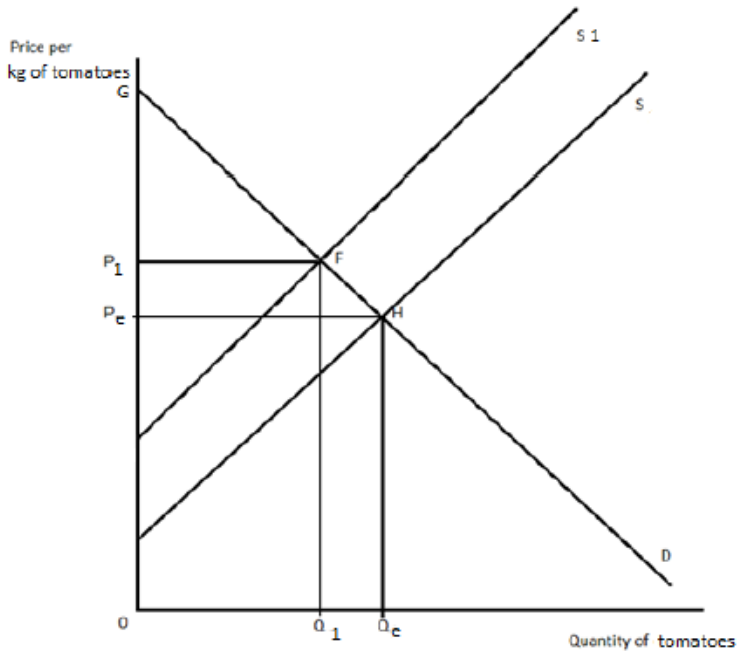
- Original consumer surplus is P_eUW **(1)**
- New consumer surplus is P_1UV **(1)**

Or

- Consumer surplus decreases by P_eP_1VW **(1+1)**

(4)

Q38.

Question	*Ceteris paribus*, explain the likely impact of this change in supply on the consumer surplus in the tomato market. Illustrate your answer with a supply and demand diagram. **Answer**	**Mark**
	Knowledge 1, Application 1, Analysis 2 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for definition of consumer surplus e.g.: • The difference between the market price and the price at which the consumers are willing to buy/pay **(1)** **Application** 1 mark for correct shift of supply to the left **(1)**	
	 **Accept perfectly inelastic supply curves for each year** **Analysis** Up to 2 marks for showing the change in consumer surplus Original consumer surplus GHP_e **(1)** New consumer surplus GFP_1 **(1)** **OR** Consumer surplus decreases **(1)** by FHP_eP_1 **(1)**	**(4)**

Q39.

Question Number	Quantitative skills assessed	Answer	Mark
	–	C	**(1)**

Q40.

Question	With reference to the information given, explain the difference between the rationing function and the incentive function of the price mechanism. **Answer**	**Mark**
	Knowledge 2, Application 2 **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for definition of rationing function e.g.: • When a resource is scarce its price rises which discourages demand/ where a price rise will result in a contraction of demand **(1K)** 1 mark for definition of incentive function e.g. • A price rise creates an incentive for firms to provide the good/ higher prices generate more profit so firms extend supply **(1K)** **Application** 1 mark for applying stem to rationing e.g.: • The rising price of cotton results in rationing to those most able to afford **(1AP)** 1 mark for applying stem to incentives e.g.: • The rising price of cotton t-shirts would create an incentive to produce more/ • Farmers switched to growing wheat for animal feed as there was an incentive for higher profit **(1AP)**	**(4)**