5	**QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is A** ***B*** *is not correct as supply exceeds demand* ***C*** *is not correct as supply extends from Q_e to Q_2* ***D*** *is not correct as demand contracts from Q_e to Q_1*	**(1)**

4	**QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C** **A** is not correct because both consumer surplus and price will increase **B** is not correct because consumer surplus will increase **D** is not correct because price will increase	**(1)**

2	**QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is D** **A** is not correct because if consumers felt undervalued they are more likely to leave **B** is not correct because if consumers have good computational skills they will calculate the fact they are paying £108 more **C** is not correct because the free-rider problem relates to the underprovision of public goods	**(1)**

4	**QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C** **A** is not correct because the gain would be 42 consumer goods **B** is not correct because the gain would be 30 consumer goods **D** is not correct because the gain would be 28 capital goods	**(1)**

3	**QS8**: Make calculations of elasticity and interpret the result **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is A** **B** is not correct because the data provided are for cross elasticity of demand and not income elasticity of demand **C** is not correct because unrelated goods would have an XED of zero **D** is not correct because complements have an XED which is negative	**(1)**

6	**QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C** **A** is not correct because Y is unobtainable using current resources **B** is not correct because the opportunity cost is in terms of capital goods **D** is not correct because the movement from X to W results in a decrease in efficiency/unemployment	**(1)**

<table>
<tr><th>Question</th><th>Draw a diagram to illustrate the likely impact of this change on the world market for olives.

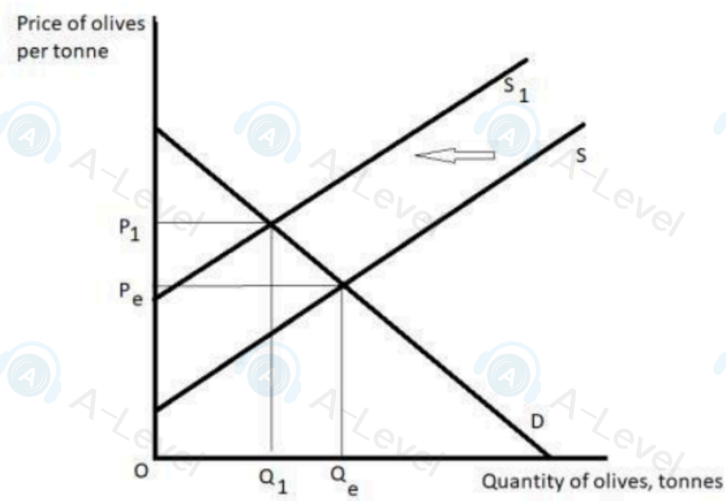
Answer</th><th>Mark</th></tr>
<tr><td>7</td><td>Knowledge 1, Application 3

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.

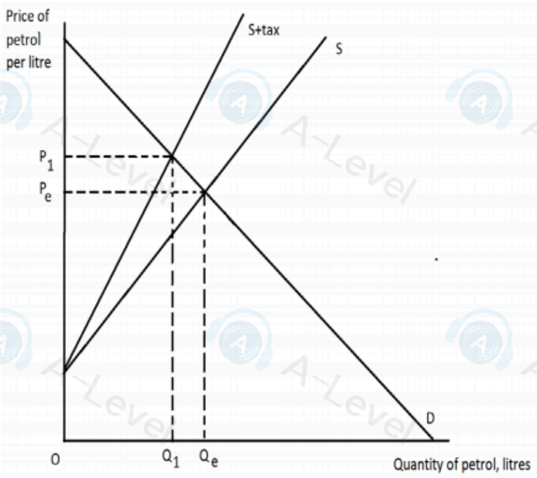
Knowledge

1 mark for showing knowledge on diagram
• Original supply and demand curves with correctly labelled axis (1)

Application
Up to 3 marks for the following information included on diagram:
• Original equilibrium price and quantity (1)
• Supply curve shifted to the left (1)
• New equilibrium price and quantity following the correct shift in supply (1)


</td><td>(4)</td></tr>
</table>

Question	*Ceteris paribus*, calculate the price elasticity of supply for green coffee beans. Show your workings. **Answer**	**Mark**
10	**Knowledge 1, Application 3** Quantitative skills assessed: **QS8:** Make calculations of elasticity and interpret the result. **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms **Knowledge** 1 mark for definition/the formula of price elasticity of supply $\dfrac{\text{\% change in quantity supplied}}{\text{\% change in price}}$ **(1)** **Application** Up to 3 marks for calculations: • % change in green coffee bean output 11 550 000- 8 510 000/8 510 000 x 100 = 35.7226792% **(1)** • % change in price 1.82-1.61/1.61 x 100 = 13.0434783% **(1)** 35.7226792% ÷ 13.0434783% = 2.73873873 **(1)** **NB: if correct answer (e.g. 2.7/ 2.74/2.739) is given, award full marks regardless of working.** **Accept reasonable rounding from full calculation (e.g. 36/13 = 2.8)** **Award 3 marks for 2.74%**	**(4)**

Question Number	Saudi Arabia introduced its first indirect tax on the sale of goods and services in 2018. The tax is charged at 5% of the price of goods and services. Draw a diagram to illustrate the impact of the introduction of the indirect tax on the equilibrium price and quantity of petrol in Saudi Arabia.	Mark
7	**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** • 1 mark for drawing original supply and demand (they do not have to include market equilibrium). OR • 1 mark for definition of indirect tax e.g. tax on expenditure OR • 1 mark for definition/identification of ad valorem **Application** Up to 3 marks for the following information included on diagram: • 1 mark for drawing a supply curve to the left of original • 1 mark for the new supply curve pivoting rather than parallel to old supply curve • 1 mark for labelling the new higher price and lower quantity.  	**(4)**

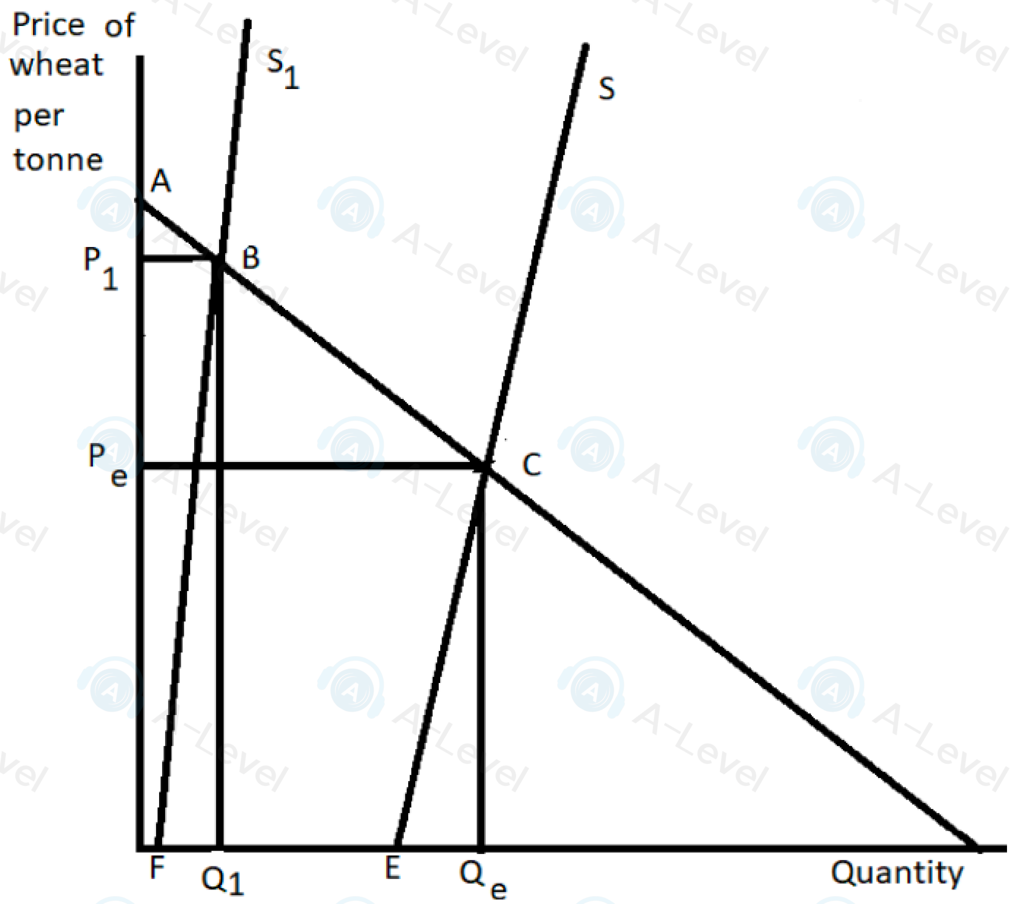
Question Number	Answer	Mark
8	**Knowledge 2, Application 2** Quantitative skills assessed: **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 2 marks for defining 'external costs of production' • Negative impacts **(1)** on third parties **(1)** • Negative **(1)** spillover effects **(1)** • Where social marginal costs/MSC are greater than **(1)** private marginal costs/MPC **(1)** - May be shown diagrammatically • Where production leads to a cost **(1)** to third parties **(1)** **Application** 2 marks for applying to the data in the table e.g.: • Producing 1kg of lamb causes 24kg of greenhouse gas emissions/producing 1kg of poultry causes 6kg of greenhouse gas emissions/producing 1kg of beef causes 60kg of greenhouse gas emissions **(1)** • which will contribute to global warming/climate change **(1)**	**(4)**

Question	Explain how the above table may be used to illustrate the concept of diminishing marginal utility. Use the last column in the table to show your workings. Answer	**Mark**
11	**Knowledge 1, Application 1, Analysis 2** Quantitative skills assessed: **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for defining diminishing marginal utility / marginal utility • Diminishing marginal utility is where as a person increases consumption of a product, there is a decline in the marginal utility that person derives from consuming each additional unit of that product • Marginal utility is the change in utility after an increase in consumption of a good **(1)** **Application** 1 mark for the following table completed, at least showing where diminishing marginal utility occurs	

Number of drinks	Total utility	Marginal utility
1	15	-
2	32	17
3	52	20
4	73	21
5	85	12
6	90	5

		Analysis Up to 2 marks for likely impact • Luca experiences increasing marginal utility when increasing consumption from 1 to 2 drinks/ 2 to 3 drinks/ 3 to 4 drinks/ as the number of drinks moves from 1 to 4 the marginal utility increases from 17 to 21 **(1)** • Diminishing marginal utility starts when he moves from 4 to 5 drinks **(1)** marginal utility falls from 21 to 12/ as consumption increases from 5 to 6 marginal utility falls from 12 to 5/ as the number of drinks moves from 4 to 6 the marginal utility decreases from 21 to 5 **(1)**	**(4)**

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**
14	**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
	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 • 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.