PEARSON EDEXCEL IAL ECONOMICS · YEC11

ECONOMICS



MARK SCHEME

UNIT 1: GOVERNMENT INTERVENTION IN MARKETS

SCORE	PERCENTAGE
/367	%

STEMUP

These questions belong to Pearson Edexcel, not to us.

The examination questions, mark schemes and examiner comments in this pack were written and published by Pearson Edexcel. They are past assessment materials, reproduced here so that students can revise from them.

What we do not own

STEMUP is not affiliated with Pearson Edexcel and does not own, and makes no claim to own, any of the question, mark scheme or examiner report material in this pack. Pearson Edexcel has not endorsed, approved or been involved in the production of it. Pearson Edexcel and the qualification titles used here belong to their respective owners and appear for identification only.

Where to find the originals

Pearson Edexcel publishes its past papers, mark schemes and examiner reports free of charge. Always check the current specification at qualifications.pearson.com before you revise, because content and wording can change between series.

If you hold the rights to any material in this pack and would like it amended or removed, contact admin@stemup.co.uk and we will act on it.

Mark Scheme

Q1.

Question	Evaluate the advantages of a free market economy. **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 • Free market economies- where price mechanism/supply and demand determine resource allocation/where government has minimal involvement in decisions • Hong Kong closest to free market- low tax rates, low government spending and the low level of business regulation Advantages • Incentives to work hard in order to increase incomes • Profit incentive means firms have incentive to be efficient • Consumers are free to choose the goods and services they desire • Producers are free to create products to meet customer needs • Firms are likely to use profits to develop new processes helping to reduce costs and improve efficiency/productivity • Profits invested in innovative new products which better meet consumer needs • Government failure avoided e.g. ○ surpluses & shortages resulting from price controls ○ information gaps meaning the intervention is not always the best option ○ can create unintended consequences such as smuggling ○ creates excessive administrative costs. • No expensive central planning • Competition between firms may help lower price and increase quantity of goods available • Market forces (invisible hand) helps to clear the market when there is excess demand/excess supply/disequilibrium • Disadvantages of command economy

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

Disadvantages

- Underprovision of public goods- non-rivalry and non-excludability creates a free rider problem and private sector firms cannot generate profits- impacts on the provision of streetlights, roads, defence, sea defences
- Underprovision of healthcare/education- services with external benefits where people underestimate the benefit
- Overconsumption - people may consume goods ignoring external costs of their consumption e.g. pollution and congestion have negative impacts on third parties
- Private sector health care can be inefficient and expensive- US health insurance costs
- Can create inequality:
  - where the rich inherit and have more wealth
  - low skilled/unskilled/disabled/sick have low income with no support from the state in the form of welfare payments
  - free market may result in high levels of unemployment
- Large powerful firms can emerge that exploit customers by charging high prices and restricting output
- When demand is low unemployment may rise leaving some with no income
- Markets can be unstable:
  - Market bubbles can emerge and burst
  - Creates uncertainty for businesses
- Depends on the extent to which an economy acts as a free market economy- even Hong Kong still has taxes and regulation so is not a pure free market economy.

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.

Q2.

Question	Evaluate the advantages of state provision of goods and services. **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** • State provisions is where government uses taxation to provide goods and services • UAE- provides free education and healthcare, flood defences and world tallest lighthouse

	Advantages • Reduces the problem of underconsumption and production of goods with positive externalities- underconsumption as people underestimate the benefits of consuming a good- state provided free healthcare/free primary and secondary education • Reduces the problem of overconsumption and production of goods with negative externalities- overproduction as firms ignore negative impact on third parties- government imposes indirect taxes on firms producing external costs • Reduces the problem of underprovision of public goods- non-rival and non-excludable- free rider problem makes provision by the private sector unprofitable so government steps in e.g. lighthouse/flood defences • Ensures safety of the public by preventing flooding and ships hitting rocks • Reduces the problem of information gaps/Imperfect market information- information failure means consumers may under-consume goods such as health care and education so the government provides. State provides information to fill gaps- e.g. on impact of high sugar consumption • Ensures provision for all including those on low incomes who would otherwise be unable to afford the goods/services • May help to prevent exploitation of consumers by private monopolies • Can increase the number that are employed in construction/in healthcare/education system Diagrams may be drawn to illustrate underproduction/overconsumption

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 **Disadvantages** • Government failure where there is a net welfare loss through: ○ information gaps ○ lack of incentives ○ unintended consequences ○ excessive administrative costs ○ moral hazard • Government provision can be less efficient compared to the free market- lack of competition • Opportunity costs associated with the government spending leaving less money for other priorities • Less choice for consumers • Reduction in freedom • High levels of taxation to fund spending **Other evaluation** • It is difficult to place a value on the size of any external benefits/costs to know how much to provide • Information failure is increasingly solved by the internet • Magnitude of spending e.g. $136 million needs to judge this against the benefit of flood defences

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.

Q3.

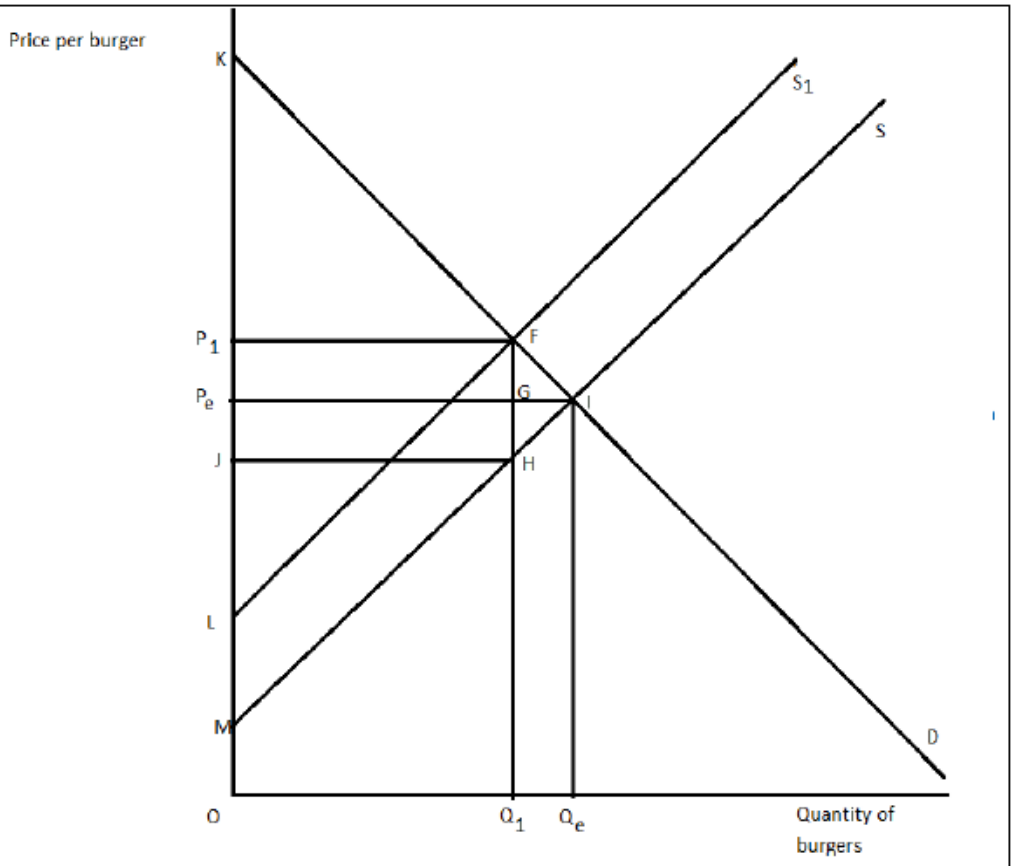
Question Number	Quantitative skills assessed	Answer	Mark
	–	A	**(1)**

Q4.

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 the government intervention causes the net welfare loss not the market **C** is not correct because this is positions above the PPF **D** is not correct because this is when consumers do not have the energy to find better deals	**(1)**

Q5.

Question	With reference to Extract B and your own knowledge, discuss the impact of the introduction of an indirect tax on 'junk food'. 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** • Indirect tax- expenditure tax • Junk food- foods that are low in nutrients and high in calories, salt, sugar or fat. • Junk food/ obesity increases the risk of cancer, heart disease and diabetes- these will reduce the quality of life and result in costs to health services/ government • Tax introduced on junk food, such as burgers, fried chicken, pizza, chips and ice cream. • Sales of junk foods increased from $862 billion to $972 billion and are expected to grow further to $1 467 billion by 2028- tax is needed to reduce the quantity of junk food consumed • The WHO estimated that junk food has contributed to 770 million people being obese in 2020/ will grow to over 1 billion by 2030 - this causes costs to health services- the tax would help reduce this number of obese people and health care costs associated with this/decrease the external costs of consumption • Treating obesity-related issues account for 8.4% of expenditure on health care in developed countries- creating an opportunity cost as less funds are available for other treatments



- The indirect tax causes supply to pivot/shift left
- As costs of production rise
- The quantity consumed decreases from Q_e to Q_1. In Hungary there was a 73% reduction in consumption of affected foods/in Mexico 7% reduction in junk food consumption
- With less quantity the amount of junk food consumed decreases and the instances of obesity/ healthcare costs reduce
- The price of junk food increases from P_e to P_1. In Denmark resulted in food prices rising. The revenue for sellers of junk food decreases from OP_eIQ_e to $OJHQ_1$
- The tax revenue earned by the government will be $FGHJP_1$
- Producer incidence will be $GHJP_e$
- Consumer incidence will be FGP_eP_1
- Consumer surplus decreases from KIP_e to KFP_1
- Producer surplus decreases
- As quantity of junk food sales decreases, employment may fall.
- In Hungary people switched to healthier choices e.g. demand for bottled water, fruit and vegetables increased- boost to non-junk food markets

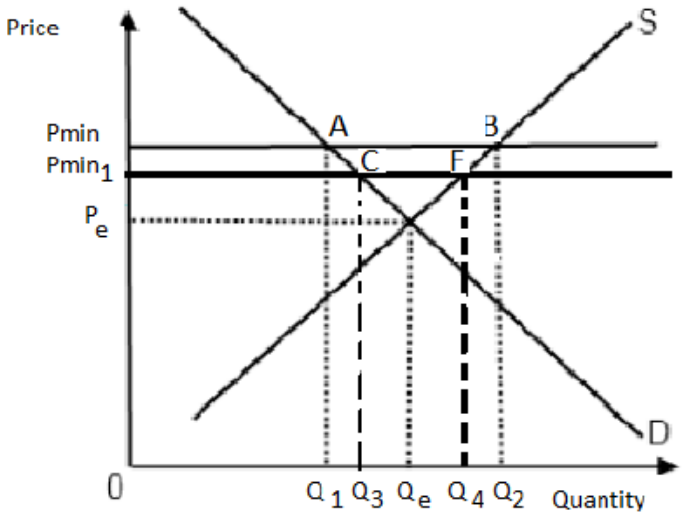
NB Maximum Level 2 if diagram omitted

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- depends on the level of the tax set- if too low then little impact on behaviour • The numbers affected by junk food are estimates which may be inaccurate • Junk food may have highly inelastic demand resulting in little impact on quantity demanded and most of the incidence of the tax being faced by consumers • Junk food market results in external benefits in terms of employment opportunities • Retailers of junk food do offer healthier alternatives • Difficult to measure the size/value of external costs of consumption-so difficult to decide the level of tax to charge • Denmark abandoned the tax as it resulted in food price inflation and job losses • Firms may adjust the contents of the meals to reduce the fat, salt, and sugar content to avoid the tax • Indirect taxes might result in government failure e.g. if they are set too high, information gaps, unintended consequences • Indirect taxes might have a more significant impact on low income families • Other methods e.g. increased information might be more effective than introducing indirect taxes

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.

Q6.

Question Number	With reference to Extract C, discuss the likely effects of the reduction in the minimum (guaranteed) price for cocoa. Illustrate your answer with an appropriate diagram.
12(e)	**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 'minimum guaranteed price' – the price below which firms cannot charge. • The Cote d'Ivoire Government sets a minimum (guaranteed) price for cocoa. • They introduced the minimum price to protect farmers from very low prices/ to support the income of farmers. • Diagram of showing a reduction of the minimum guaranteed price. 

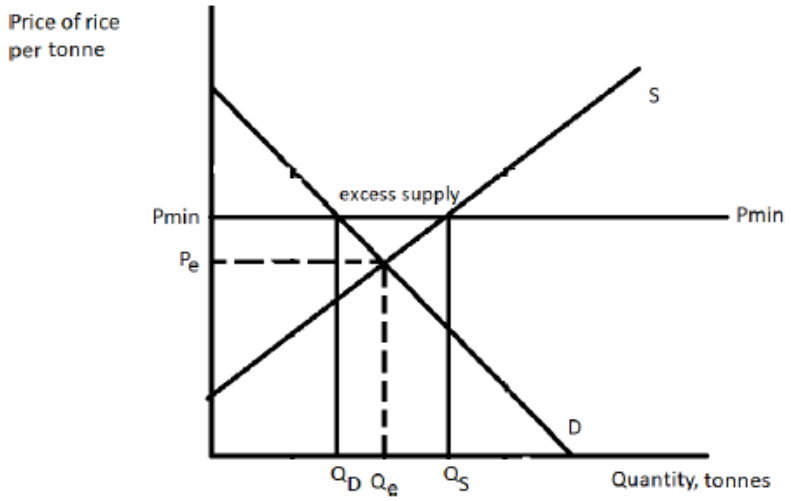
	• Originally the minimum price was Pmin and the quantity demanded was Q_1 and the supplied Q_2- this leads to excess supply Q_2-Q_1 • With the falling global cocoa prices the minimum price has been reduced by 36% in 2017. • New minimum price is Pmin1 and the quantity demanded was Q_3 and the supplied Q_4- this leads to excess supply Q_4-Q_3 • Demand has extended/ supply has contracted. • The excess supply has fallen. • To guarantee means the Government spent ABQ_2Q_1 originally and CFQ_4Q_3 after the reduction in the minimum price. • The government will spend less/ farmers will receive less support. • Government will need to spend less on administration and storage of the excess supply. • Impact on consumer surplus and producer surplus. **N.B. Candidates may give positive effects as KAA and negative effects as evaluation or vice versa.**

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 change in minimum price is large at 36% so likely to have a large impact. • Measurement – it is hard to measure what the ideal minimum price should be to know whether lowering it is appropriate. • Farmers may earn less income and lead some to close. • Some farmers are still selling cocoa at prices below the minimum price which may mean the minimum price breaks down. • The price of cocoa has fallen so the gap between the price and minimum price may not have changed significantly. • Minimum price may be non-binding/the equilibrium price may be above the minimum price. • Significance of elasticity of demand and supply.

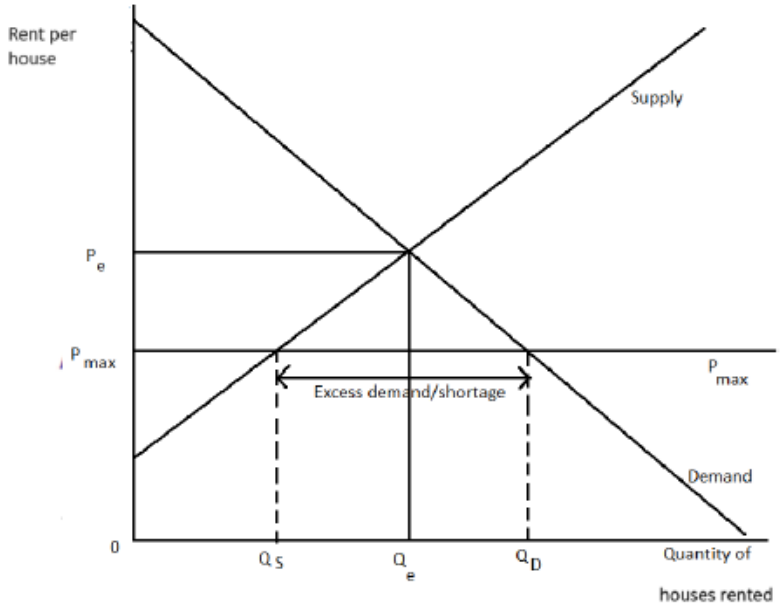
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–2	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. 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.

Q7.

Question	Draw a diagram to illustrate the impact of the introduction of this minimum price for rice. **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** 1 mark for showing knowledge on diagram • Original supply and demand **(1)** **Application** Up to 3 marks for the following information included on diagram: • Minimum price above equilibrium price **(1)** • Quantity demanded and supplied at minimum price **(1)** • Excess supply/surplus **(1)**  	**(4)**

Q8.

Question	With reference to the house rental market in Brisbane, draw a diagram to illustrate the introduction of a maximum price for renting a house. **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** 1 mark for showing knowledge on diagram • Original supply and demand with correctly labelled axes **(1)** **Application** Up to 3 marks for the following information included on diagram: • Maximum price below equilibrium price **(1)** • Q_D and Q_S at maximum price **(1)** • Excess demand/shortage **(1)**	



N.B. The market equilibrium is not necessarily required

(4)

Q9.

Question	Evaluate ways that would encourage and enable consumers to make rational decisions. **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** • Define rational decisions- where consumers maximise utility/welfare/satisfaction • Utility- satisfaction achieved by consumers • Banking 50% never moved banks- despite paying AUD1500 more per year • Broadband loyal customers pay 12% more than those that switch in UK

	Barriers to rational behaviour and ways that would encourage and enable consumers to make rational decisions • The influence of other people's behaviour (herding) ○ Ensure banks/electricity/gas/broadband providers explain the best deal available to them ○ Hopefully as they switch to better deals will advise other people to switch too • Habitual behaviour ○ Provide information on the costs of loyalty e.g. AUD1500/ 12% higher price ○ Other providers might offer incentives to switch- bonuses/ cash payment • Inertia ○ Regulation and laws ensure banks and electricity/gas/broadband suppliers provide tariff information so that consumers can easily compare tariffs ○ Comparison sites then compare deals on different networks and the process happens automatically without any effort from the consumer • Poor computational skills ○ Provision of websites- which calculate savings and compare banks/electricity/gas/broadband suppliers deals ○ Regulation and laws that insist banks and electricity/gas/broadband suppliers provide information on their best deals and are clear about the tariff they are on • The need to feel valued ○ Other providers may provide incentives- bonuses

	Other ways to encourage rational behaviour • Subsidies provided to comparison sites- lowering their costs and enabling them to provide more support to consumers • Subsidising smaller banks outside big 4 to enable them to advertise to gain more consumers with better deals • The government could introduce a maximum price if it is felt the price is too high- reduces the price but does not necessarily improve rationality. • State provision- e.g. Government provide electricity and gas to prevent consumers from being overcharged • Regulation- to ensure that banks/electricity/gas/broadband providers have rules that make it harder for them to exploit. • Support companies to provide information to help consumers to make rational decisions • Provision of information so people are aware of costs/benefits of switching so better able to make rational decisions Answers must look at ways to encourage rational behaviour to access 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.
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 • Different consumers will be able to save more or less than this amount • Some may save much less and therefore it is rational to stay with the current provider • Automatic switching may not always work and could cost the consumer as they may not be switched to the lowest priced deal	

	• Websites- may be captured by industries paying them incentives to highlight their deals despite them not being the best deal • Other providers may provide incentives- bonuses which add to the costs of the business reducing profitability • Subsidies create an opportunity cost and this might be better spent on improving efficiency of energy generation • A maximum price reduces the price but does not necessarily improve rationality • State provision- costly for the government and without competition they may be less efficient • Regulation- even with these rules consumers may not be able to calculate or have inertia and therefore still not switch • Provision of information may be ignored as people follow others or have inertia • People may in fact be acting rationally- there may be other loyalty schemes, customer service, quality benefits of their loyalty • A lower price is not always the best/rational choice as quality and after sales service need to be considered

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.

Q10.

Question	Evaluate possible factors that could cause a rightward shift of a country's production possibility frontier. Include at least one relevant 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.

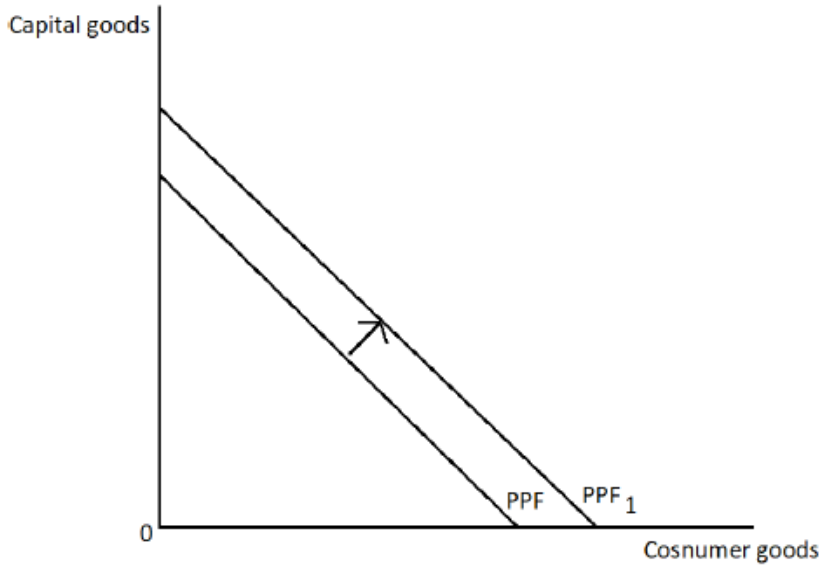
Knowledge, application and analysis (12 marks) – indicative content

- PPF- shows the maximum possible production using all available resources

Factors that could cause a rightward shift of a country's PPF

- Population increase from 9.4m to 14.1m (UAE)/12.1m to 18.8m (Bolivia)/113.9m to 180.2m (Philippines) increases the size of the available workforce
- More immigration- increases the size of the labour force and production possibilities
- Offering more work visas, offer payments to migrants may encourage immigration, increasing labour force
- Families having more children, will eventually result in larger workforce
- Use of benefits, subsidies and tax breaks to encourage families to have more children, to increase workforce
- Investment in capital goods will increase productivity
- Use of subsidies and tax breaks to encourage investment in capital goods
- More research and development will result in better production processes increasing output
- Encourage research and development- helping to improve innovation and increasing productive potential
- Development of artificial intelligence may replace tasks completed by humans
- Increase spending on education to develop skills to improve productivity
- Increase spending on healthcare to improve health- reducing time lost to absenteeism, sickness
- Increase retirement age so people stay in the labour market for longer
- Reduce school leaving age so that people start to become productive earlier
- Offer training courses to improve skills and productivity
- Discovery of new natural resources

PPF diagram- accept straight line or curved PPFs



NB Award maximum of Level 3 if no diagram is included

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 • Immigrating to a country may not be attractive if jobs are not available in the right areas • Immigration may cause pressure on public services • If immigrants do not find suitable opportunities productive potential will not rise • Payments to migrants create an opportunity cost • Financial rewards for having more children are unlikely to exceed the costs of having more children • Subsidies to encourage investment in capital goods create opportunity costs • Much research and development is unproductive and not all ideas will improve production possibilities • Artificial intelligence may come with unknown risks and costs • Spending on education may be in the wrong areas- resulting in smaller impact on productive potential • Increase in spending on healthcare will only have an impact if it is preventative • Increasing the retirement age may cause unrest as people are forced to work longer • If people leave education earlier they may be less skilled • Possible information failure, government failure if training is in wrong areas • Time lag e.g. long delay between increased birth rate and increased production possibilities

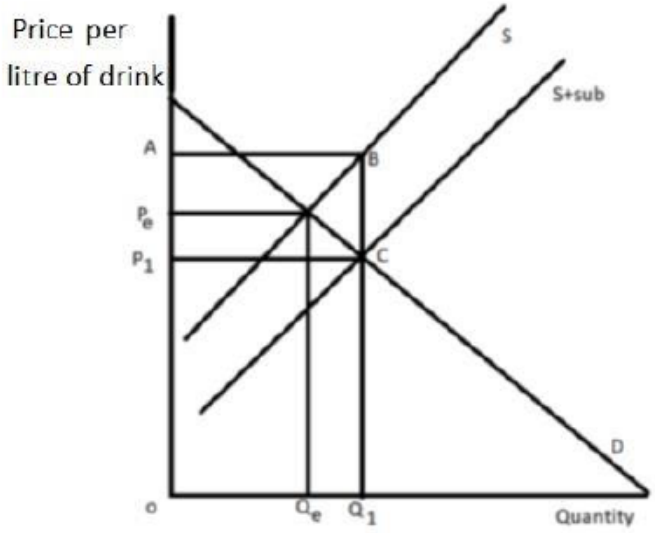
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context.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

Q11.

Question	Between May 2021 and May 2022 some global commodity prices increased significantly. For example: • fuel prices increased by 83.8% • food prices increased by 23.6% • beverage (drink) prices increased by 20.3%. Evaluate possible methods of government intervention that might reduce the impact of increasing commodity prices. Include at least one diagram in your answer.
	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.

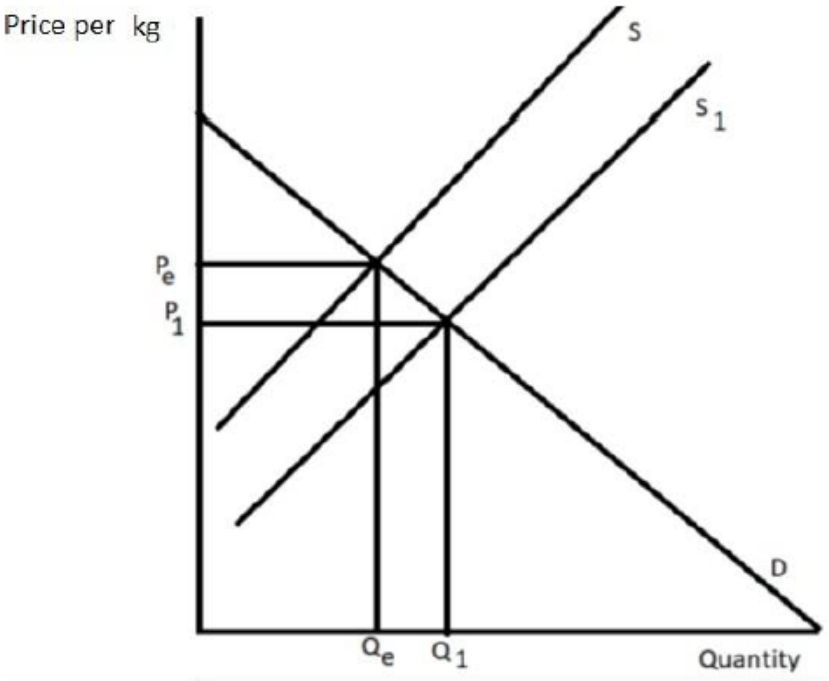
Knowledge, application and analysis (12 marks) – indicative content

- Subsidies-cash grant for producers
  - Lowers costs of production
  - Shifts supply to the right S to S+sub
  - Decreases price charged to consumers P_e to P_1
  - Increases quantity of commodity consumed, Q_e to Q_1
  - Cost of subsidy to the government $ABCP_1$



Reduce taxation on commodities

- Indirect tax- expenditure tax
- Increase supply S to S_1
- Reduces costs of production
- Results in reduced price P to P_1
- Increases quantity of commodity, Q_e to Q_1
- Reduced tax revenue for the government



Introduce maximum price

- Maximum price is a price ceiling above which firms cannot charge
- Maximum price set below the equilibrium price
- Price paid is reduced
- Makes the product more affordable
- Leads to an extension of demand
- Results in higher quantity demanded
- Leads to a contraction in supply
- Results in lower quantity supplied
- Creates a disequilibrium
- Excess demand results

Accept other interventions e.g.

- State provision- nationalising suppliers
- Cash payments to households/businesses

NB Level 4 requires at least one relevant diagram
Level 4 requires at least two methods

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 price is large- so significant subsidies/tax cuts needed • Opportunity costs associated with government spending • The intervention may need to last a long time if prices stay high • Food manufacturers and farmers may absorb some of the decreases in costs from subsidies and not hand on price decreases • Price elasticity of demand- if inelastic there will be only small changes in quantity but large reductions in price • Volatile prices so may well fall rapidly without government intervention • Government difficulty in controlling commodity prices when they have a global price • Risk of government failure- government intervention leads to net welfare loss: o information gaps result in wrong level of subsidy/tax/maximum price o lack of incentives for firms and consumers to reduce demand as reduction in price in the case of subsidies o unintended consequences o excessive administrative costs

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.

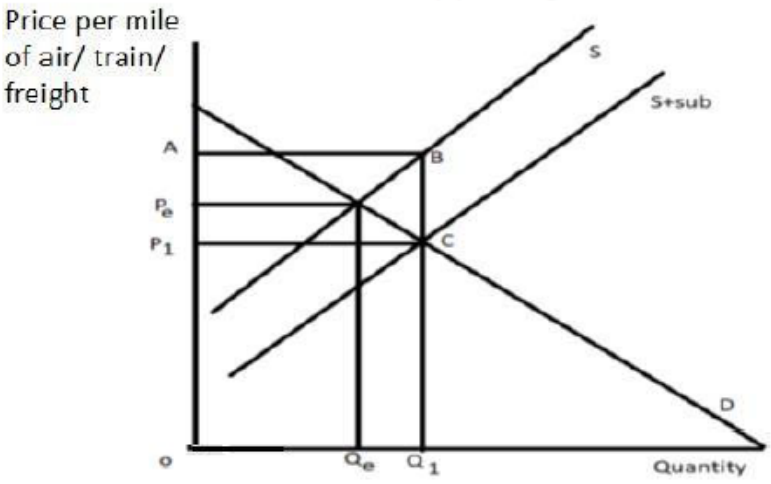
Q12.

Question	Commuters in Bursa, Turkey, spent an average of 82 hours in traffic congestion in 2021. This was a 75% increase compared with 2019. Evaluate possible methods of intervention that the Turkish Government could introduce to reduce traffic congestion. Include at least one diagram in your answer.
	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.

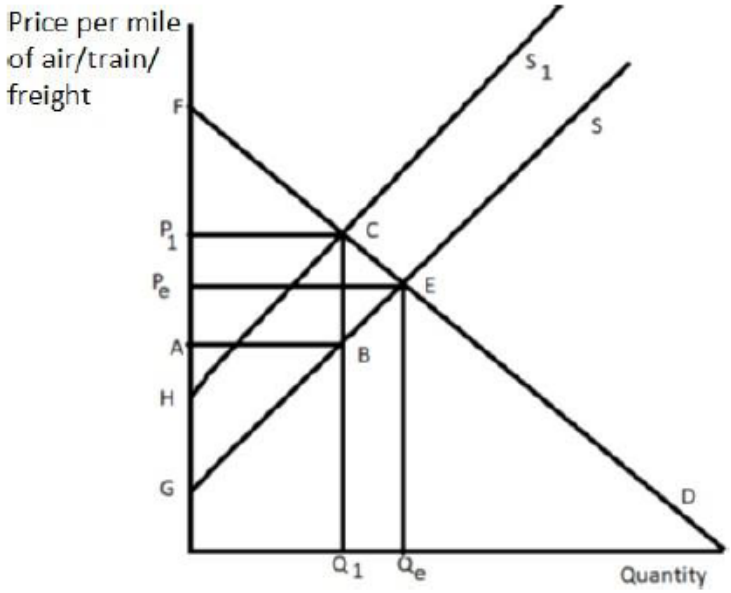
Knowledge, application and analysis (12 marks) – indicative content

Possible measures include:

- Subsidies-cash grant for alternatives- e.g. freight/passenger trains/buses/trams/planes to reduce pressure on roads
  - Lowers costs of production
  - Shifts supply to the right S to S+sub
  - Decreases price charged to businesses/consumers P_e to P_1
  - Increases quantity of train/air travel available to businesses/consumers, Q_e to Q_1
  - Cost of subsidy to the government $ABCP_1$
  - Reduces road use by passengers/businesses- traffic congestion reduces



- Increase in indirect taxation- expenditure tax charged on fuel/cars
  - Increase costs of production
  - Shifts supply to the left, S to S_1
  - Increased equilibrium price charged to consumers P_e to P_1
  - Decreases equilibrium quantity of fuel/cars for consumers, Q_e to Q_1
  - Tax revenue received by the government $ABCP_1$
  - Reduces road use/traffic congestion



- Road pricing- charging consumers to use roads- this will add to the costs of driving. With higher costs of driving, individuals might find alternatives cheaper and incentivise using alternative vehicles that are not charged e.g. bicycles/trains

Accept other relevant measures that help reduce congestion e.g.

- spending on roads- more lanes
- spending on rail network/buses
- provision of information to help consumers avoid traffic/congestion
- encourage remote/home working- giving firms incentives to support home working so people do not need to travel
- toll roads
- congestion charges
- higher level of minimum price resulting in contraction of demand
- Regulation to ban vehicles

Accept externalities diagram to illustrate effects of methods of intervention

NB Level 4 requires at least one relevant diagram
Level 4 requires at least two methods

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

- Subsidies-
  - Depends on size of the subsidy as to the impact on price
  - Firms in receipt of subsidy may become complacent
  - If traffic is a significant/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 of the subsidy
  - Government failure- government intervention leads to a net welfare loss

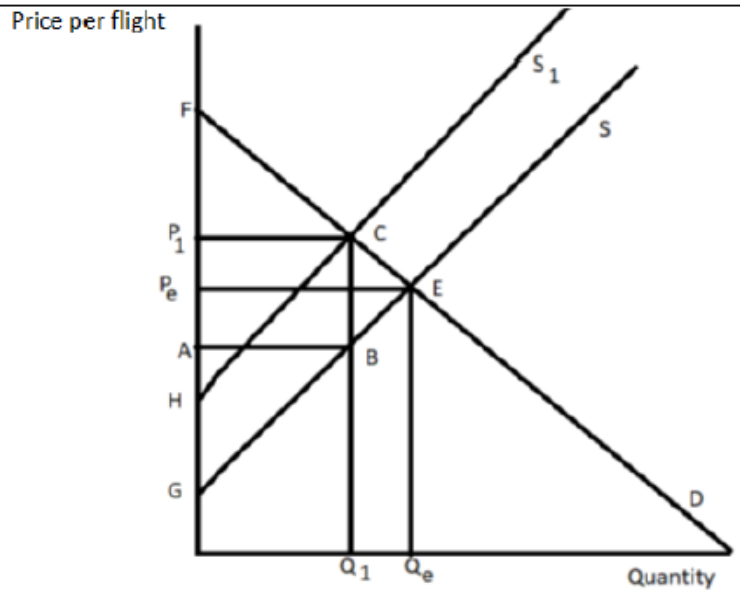
- Indirect taxation-
  - Depends on the size of the tax increase
  - Highly inelastic demand for fuel/cars means relatively small impact on quantity
  - Information failure- government may not know the ideal rate of taxation
  - Government failure- if it leads to net welfare loss

- Road pricing-
  - Depends on level at which road charges are set
  - Depends on the price difference with alternatives
  - Roads nearby without road pricing may become busier which just moves the congestion
  - Inelastic demand for using cars may limit the change in quantity demanded
- Any measures to reduce traffic may be offset by increases in the number of drivers
- Any policy to build capacity has a time delay and in fact may worsen traffic whilst construction occurs
- External costs associated with construction
- Opportunity costs with investment in roads/rail
- Technology should improve over time helping consumers to avoid traffic/congestion

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.

Q13.

Question	Evaluate the likely impact of imposing indirect taxes on aeroplane flights to reduce carbon emissions. Include at least one relevant 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** • Definition of indirect taxation- expenditure tax • Specific tax/Ad valorem tax- ○ Increase costs of production ○ Shifts/pivots supply to the left, S to S_1 ○ Increased equilibrium price charged to consumers P_e to P_1 ○ Decreases equilibrium quantity of flights for consumers, Q_e to Q_1 ○ Reduced quantity of aeroplane flights will result in a reduction in fuel use and in total global carbon emissions. Therefore there will be a reduction in external costs ○ Tax revenue received by the government $ABCP_1$ ○ Use tax revenue to fund research into technology to reduce emissions/ fund alternatives ○ Producer surplus decreases/ airline/ airport profits fall ○ Consumer surplus decreases FEP_e to FCP_1



Accept ad valorem diagrams to illustrate the effects of the indirect tax

Accept externalities diagram to illustrate effects of indirect tax

NB Award maximum of Level 3 if no diagram is included

Level 4 requires at least two impacts

Advantages may be presented as KAA and disadvantages as EV or vice versa

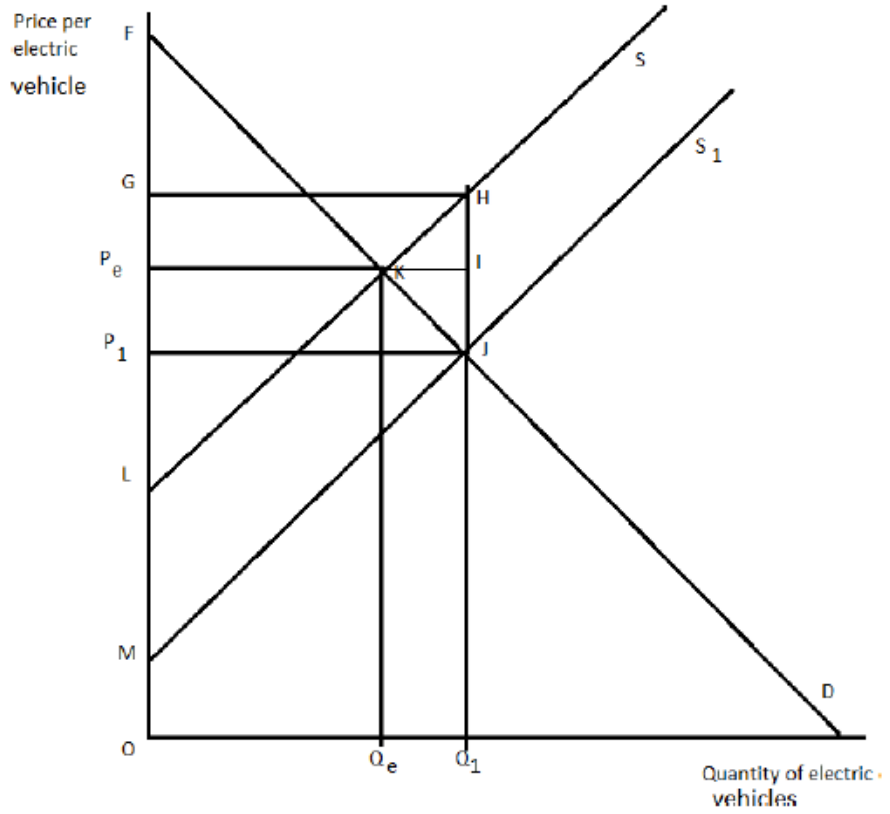
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has 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 • Depends on the size of the tax • Highly inelastic demand for flights means relatively small impact on quantity • Different effects on those travelling for business/leisure • Information failure- government may not know the ideal rate of taxation • Government failure- if it leads to net welfare loss • Any measures to reduce flights may be offset by increases in the number of people using cars or lorries. Therefore, there may be little reduction in external costs • Following the global health crisis, significant numbers have continued to work remotely-reduces the need to fly. Even without imposing indirect taxes the total number of aeroplane flights is likely to have fallen below 2019 levels. Therefore, global carbon emissions may already be below 2.5%

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.

Q14.

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

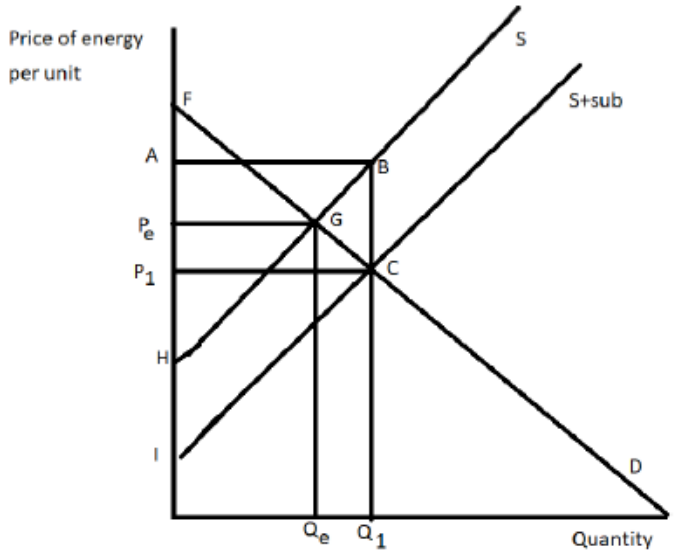
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has 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
	• 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

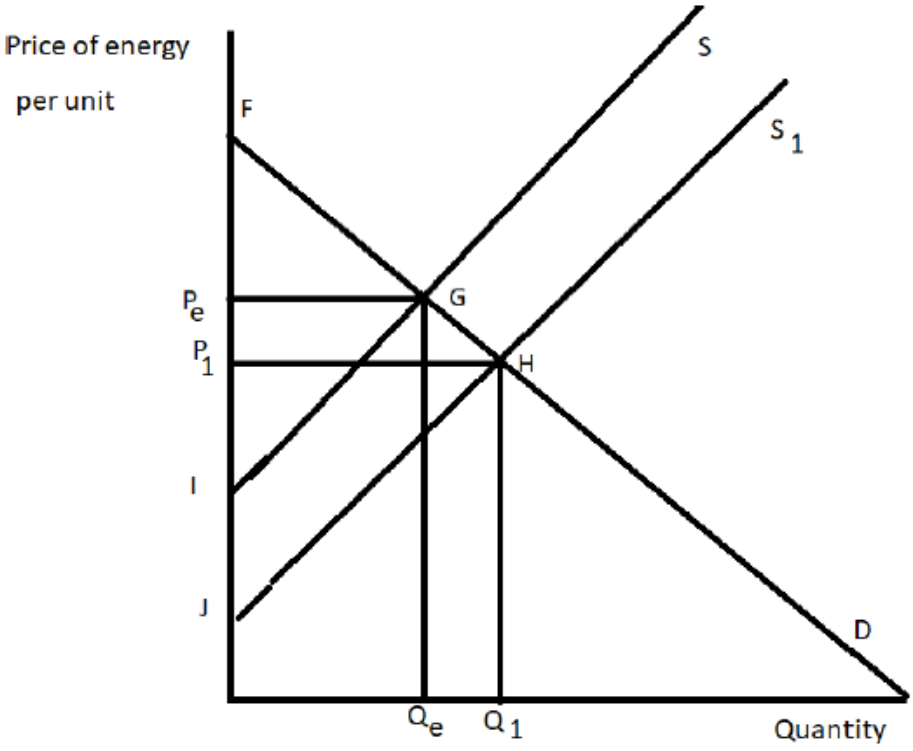
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context.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

Q15.

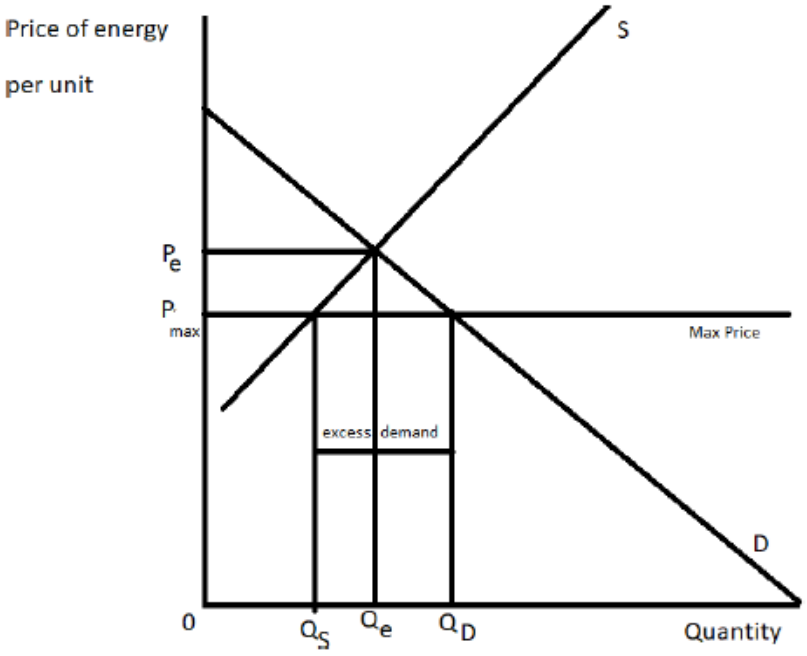
Question	Evaluate **two** possible measures that could be introduced to reduce the price that consumers pay for energy. Include at least one diagram in your answer. **Indicative content**
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Indicative content 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.
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 • 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.
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.

Q16.

Question	With reference to the Maldives, explain the difference between 'market failure' and 'government failure'. **Answer**	Mark
	Knowledge 2, Application 2 Quantitative skills assessed: **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for understanding of 'market failure' • Where the price mechanism/ supply and demand/ buyers and sellers lead to an inefficient allocation of resources/ misallocation of resources **(1)** 1 mark for understanding of 'government failure' • Where government intervention leads to a net welfare loss/ a worse allocation of resources **(1)** **Application** 1 mark for reference to data on market failure • Market failure – under-provision of public goods/ under-investment in flood defences **(1)** 1 mark for reference to data on government failure • Government failure - excessive administrative costs/required to complete extensive paperwork **(1)**	**(4)**

Q17.

Question Number	Quantitative skills assessed	Answer	Mark
		The only correct answer is B ***A*** *is not correct as this is successful government intervention* ***C*** *is not correct as this is market failure* ***D*** *is not correct as this is market failure*	**(1)**

Q18.

Question	Quantitative skills assessed	Answer	Mark
	–	**The only correct answer is B** **A** is not correct because this is a market failure **C** is not correct because this is a function of the price mechanism **D** is not correct because this is the government intervening to correct the market failure	**(1)**

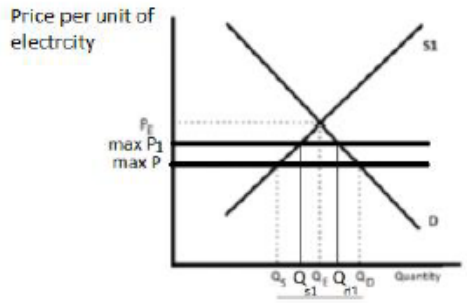
Q19.

Question	Quantitative skills assessed	Answer	Mark
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is D** **A** is not correct because this illustrates that the market is functioning correctly **B** is not correct because this is an example of market failure **C** is not correct because this is government intervention succeeding in eliminating the market failure	**(1)**

Q20.

Question	Quantitative skills assessed	Answer	Mark
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is D** **A** is not correct because this is market failure **B** is not correct because this is market failure **C** is not correct because this is market failure	**(1)**

Q21.

Question	In the UK the maximum price for a unit of electricity for domestic consumers was £0.28 per kilowatt hour in September 2022. This was increased by the Government to £0.34 per kilowatt hour in October 2022. Evaluate the microeconomic effects of an increase in the maximum price of electricity. 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** Increase the maximum price • Maximum price is a price ceiling above which firms cannot charge • Maximum price set below the equilibrium price • Maximum price is increased from max P to max P_1 • Maximum price for a unit of electricity was £0.28 per kilowatt hour in September 2022. This was increased by the Government to £0.34 per kilowatt hour in October 2022 • Makes the product less affordable than it was but more affordable than equilibrium price • Consumers have less income available for consuming other goods and services • Leads to a contraction of demand – Q_D to Q_{d1} • Results in lower quantity demanded compared to lower maximum price • Leads to an extension of supply- Q_s to Q_{s1} • Results in higher quantity supplied compared to lower maximum price • Creates a disequilibrium • Excess demand is reduced Q_D-Q_S to Q_{d1}-Q_{s1}
	 • The lower maximum price may have resulted in some electricity companies shutting down- the higher maximum price should result in fewer firms shutting down • This was due to reduced profitability and loss making of smaller firms in the market before the maximum price was increased • Consumers are likely to buy more energy saving devices e.g. electric blankets and to invest in home insulation • Reduced electricity consumption would result in lower electricity generation and reduced levels of external costs

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 maximum price is large- so significant impact • Electricity companies are more likely to survive • Maximum price of electricity affects domestic consumers and not businesses • Price elasticity of demand- if inelastic there will be a smaller impact on demand • Volatile prices so the price could fall below the maximum price • Risk of government failure- government intervention leads to net welfare loss: ○ information gaps result in wrong level of maximum price ○ unintended consequences ○ excessive administrative costs • Overall impact depends on how much real incomes change • Consumers may not pay more as they may reduce their usage of electricity

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.

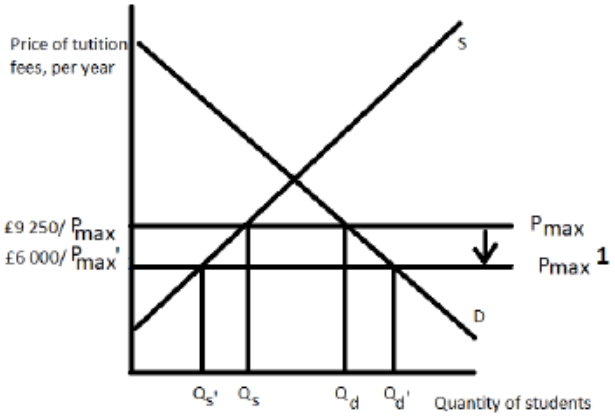
Q22.

Question	Define the term 'tradeable pollution permit scheme.' (Extract B, line 16) **Answer**	Mark
	Knowledge 2 Up to 2 marks for defining 'tradeable pollution permit scheme.' e.g.: • Where firms are permitted/allowed to pollute up to a certain level **(1)** • Any excess permits can be sold/firms can buy additional permits when needed **(1)** • Fertiliser manufacturers are part of the European Union's tradeable pollution permit scheme **(1)**	**(2)**

Q23.

Question Number	Quantitative skills assessed	Answer	Mark
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C** **A** is not correct because this position shows unemployed resources **B** is not correct because at B there are fewer capital goods consumed than at C so growth will be slower **D** is not correct because this point is unattainable using current resources	**(1)**

Q24.

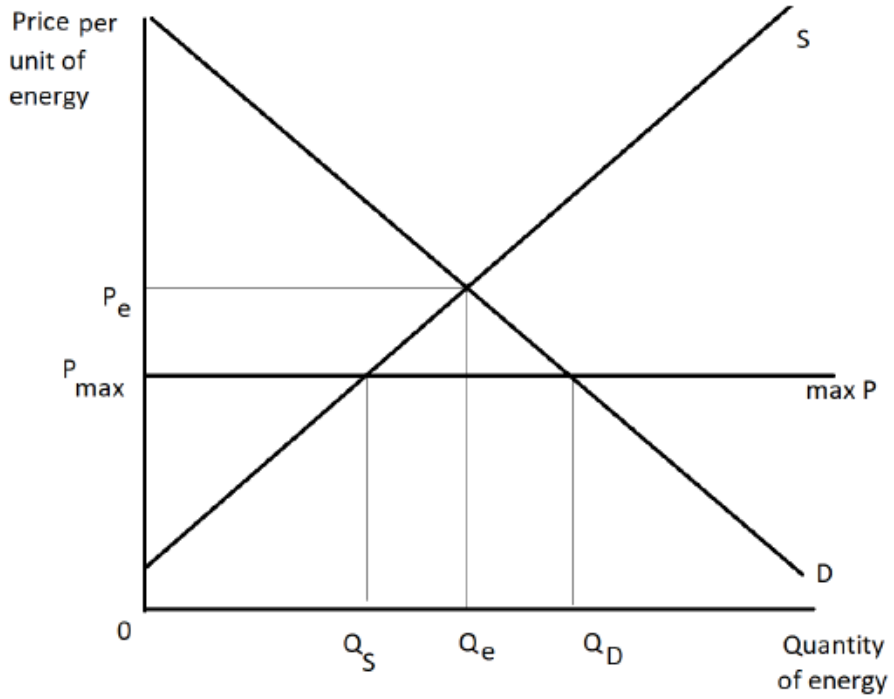
Question	Draw a diagram to illustrate the impact of a decrease in the maximum price of university tuition fees in the UK. Answer	Mark
	Knowledge 1, Application 3 Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** • 1 mark for drawing a supply and demand diagram showing the original maximum price below the equilibrium price. **Application** Up to 3 marks for the following information included on diagram: • 1 mark for drawing a new maximum price below the original maximum price • 1 mark for showing new quantity supplied and quantity demanded (May be offered in written explanation) • 1 mark for the impact on excess demand (rises)/ shortage increases (May be offered in written explanation)  	**(4)**

Q25.

Question Number	Answer	Mark
	Knowledge 1, Application 1, Analysis 2 **Knowledge** 1 mark for defining regulation, e.g.: • rules or laws put in place to influence behaviour **(1)** Or 1 mark for identifying an impact e.g.: • The quantity consumed will fall • The revenue earned by energy drink manufacturers will fall • Government failure/ Unintended consequences may occur • Lower costs of treating health problems caused by energy drinks • Consumers will substitute to alternatives **(1)** **Application** Up to 1 mark for applying to energy drink market, e.g.: • Children/ Those under 18 will be prohibited from purchasing energy drinks **(1)**	
	Analysis Up to 2 marks for explaining the likely impact e.g.: • The quantity consumed will fall as the quantity of customers falls with under 18s now unable to buy **(1)** leading to contracting supply / caused by decreased demand **(1)** • The revenue earned by energy drink manufacturers will fall as they will no longer sell products to those under the age of 18 **(1)** thus a smaller number is multiplied by the price and revenue falls **(1)** • Government failure/ Unintended consequences may occur as under 18s move to the informal sector to get access to these products **(1)** and some of this supply may be of inferior quality **(1)** • Fewer health problems caused by energy drinks meaning less need for health services **(1)** and lowering the cost to the government **(1)** • The Government will have costs associated with monitoring and policing the regulation **(1)** these costs will incur an opportunity costs to the government as they cannot spend these funds elsewhere **(1)** • Consumers will no longer consume energy drinks and will buy alternatives instead **(1)** increasing demand and revenue for the firms **(1)** • Diagram showing leftwards shift of demand curve **(1)** and corresponding impact on both lower quantity and lower price **(1)**	**(4)**

Q26.

Question Number	'12 million consumers within the UK are on standard variable tariffs for their gas and electricity. One energy supplier, RWE npower, charged consumers on the standard variable rate £1 166 per year. However, its cheapest deal was £935 per year. Consequently the UK Government is introducing a maximum price for gas and electricity.' Evaluate the likely impact of the introduction of a maximum price for gas and electricity. 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 • Maximum price- the price ceiling above which price cannot be charged. • The idea is to protect consumers from being charged very high prices for gas and electricity. • When they pay £1 166 it is a high price compared to the cheapest deal- £231 more expensive. • Diagram may be offered. 

	• The price charged to standard variable rate customers should fall from P_e to P_{max}. • This will see a **contraction** in quantity supplied to Q_s as providing the good is less profitable. • The lower price will see an **extension** in demand to Q_D as product is more affordable. • Maximum price causes excess demand/ a shortage. • Consumer surplus will rise for those being charged a lower price. • Producer surplus will fall. • Total revenue and profit may fall for electricity and gas providers. • Could reduce choice to consumers as some firms may decide to leave the market, further increasing the shortage in the future. • The emergence of informal activities, alternative sources of energy.

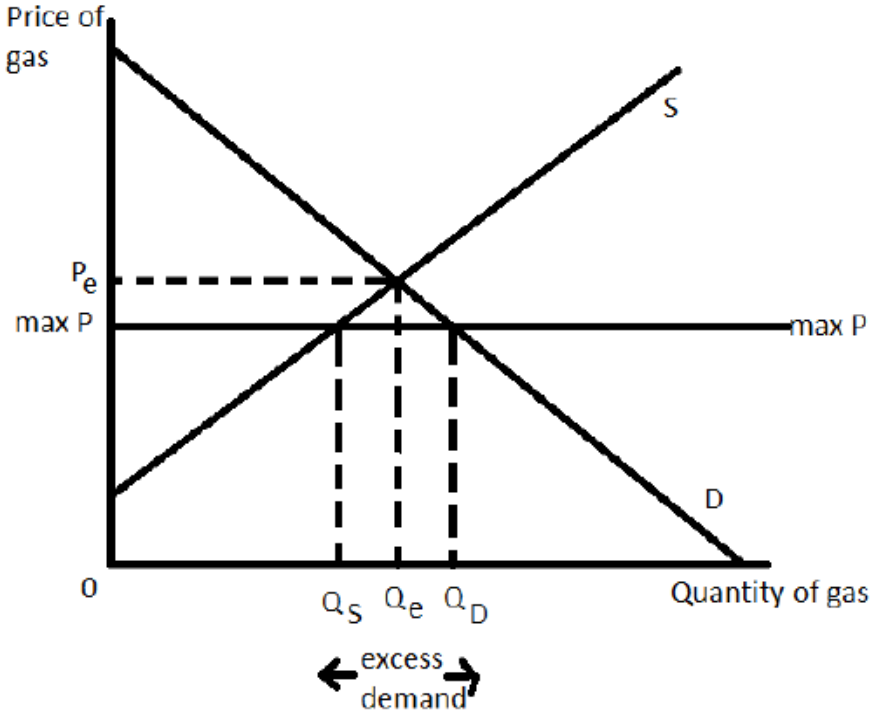
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models. Use of generic material or irrelevant information or inappropriate examples. Descriptive approach, which has 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 – what level should maximum price be set at. • Magnitude – depends on level of maximum price as to whether it will have desired impact/ 12 million may benefit from this policy. • Time frame – it will take time for the maximum price to be implemented. • Consumers may be worse off if they cannot secure a supplier as supply contracts. • Regulators will ensure customers still receive supply. • Firms may change the way they charge to get around the maximum price. • Long term energy supply problems if maximum prices discourage investment in the industry. • Demand likely to be inelastic so little change in quantity

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.

Q27.

Question Number	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** 1 mark for showing knowledge on the diagram: • Supply and demand curves drawn accurately with equilibrium quantity and price **(1)** **Application** 1 mark for the following included on diagram: • Maximum price below the equilibrium price **(1)** 1 mark for either of the following: • New quantity supplied (Q_S) and new quantity demanded (Q_D)/ Demand extends and supply contracts **(1)** 1 mark for identifying the overall impact: • Excess demand/ shortage identified on diagram **(1)**	



(4)

Q28.

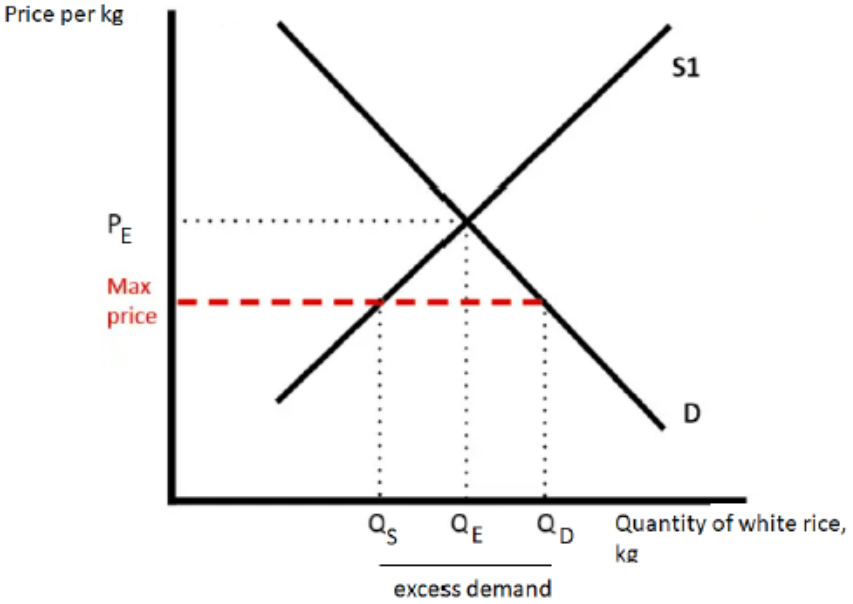
Question	Quantitative skills assessed	Answer	Mark
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C-** Excess demand will be equal to Q_0Q_2 **A** is not correct because quantity supplied contracts from Q_1 to Q_0 **B** is not correct because quantity supplied extends from Q_1 to Q_2 **D** is not correct because excess supply would occur if a minimum price was introduced	**(1)**

Q29.

Question	Evaluate the impact of imposing this maximum price on the market for white rice in Sri Lanka. **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

- Maximum price is a price ceiling above which firms cannot charge
- Maximum price is below the equilibrium price
- Leads to a contraction in supply
- Leads to an extension of demand
- Creates a disequilibrium
- Creates an excess demand



- Ensures white rice remains affordable to consumers
- Prevents powerful firms being able to charge high prices
- Creates government failure- the emergence of an informal market- illegal trading of rice
- Creates queues for goods, time in queues is an opportunity cost and could be spent productively elsewhere
- Reduces producer surplus/profits
- Increases consumer surplus for those still able to purchase white rice
- May result in unemployed workers in the rice industry, impacting standards of living
- Some rice growers may exit the market
- Decreased demand for substitutes- e.g. brown rice

NB Positive impacts as KAA and negative impacts as evaluation and vice versa

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- we do not know how much of a reduction in the price this will cause to know the size of the excess demand • Excess demand will also depend on PED and PES for white rice • If supply is perfectly inelastic then there will be no change in the quantity • Highly inelastic demand would result in less change in quantity • Costs associated with managing the maximum price may be incurred • Depends on how long the policy is in place • Monitoring can ensure the informal trading of rice does not occur • If equilibrium price falls below maximum price, then no impact • No shortage if it can be met by imports • If shortage of white rice it may in fact increase demand for brown rice / substitutes.

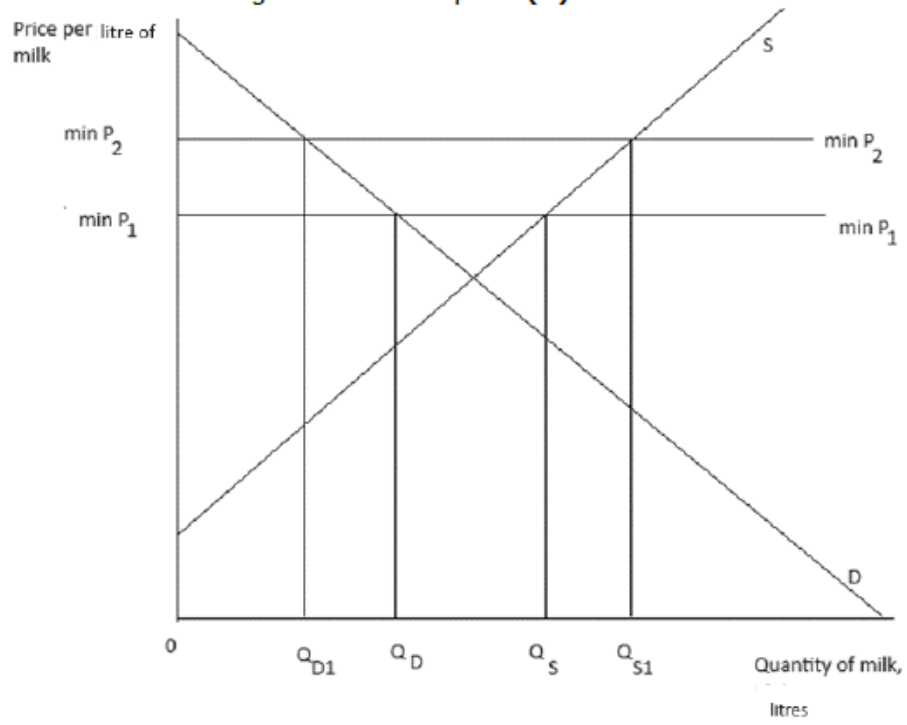
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	Identification of generic evaluative comments. No supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	4–6	Evidence of evaluation of alternative approaches. Some supporting evidence/reference to context. 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	With reference to Extract C, examine two microeconomic effects of Finland's decision to remove the sugar tax. **Answer**	Mark
	Knowledge 2, Application 2, Analysis 2, Evaluation 2 **Knowledge and Analysis** Up to 1 marks for knowledge of taxation, e.g.: • Definition of indirect tax: expenditure tax/ This sugar tax is a specific tax **(1)** Up to 2 marks for identifying two effects and up to 2 marks for linked explanations showing the impact of removal of the sugar tax, e.g.: • Removal will see the supply curve shift right leading to lower price paid by consumers **(1+1)** • The equilibrium quantity will increase meaning consumption of sugary products will rise **(1+1)** • The tax revenue earned by the government will fall reducing funds to tackle obesity **(1+1)** • Revenues and profits earned by firms with products who have the tax removed will increase as output rises. **(1+1)** • With the lower price the gap between what consumers are willing to pay and the market price will rise **(1+1)** • Producer surplus will rise as supply increases/demand extends **(1+1)** • The producers of biscuits and cakes will lose a competitive advantage and may lose revenue/ profit **(1+1)** • External costs may emerge as rates of obesity/ cancers etc rise **(1+1)** • Reward relevant diagrammatic analysis	

	Application Up to 2 marks for reference to the given sources, e.g.: • Tax affects sweets, chocolate, ice cream and fizzy drinks **(1)** • Tax charged at €0.95 per kilogram or €0.11 per litre **(1)** • 5% reduction in consumption when tax imposed so removal may see consumption rise **(1)** • Tax was unfair with manufacturers of biscuits and cakes avoiding tax **(1)** • Tax revenue lost €109 million per year **(1)** **Evaluation** Up to 2 marks for evaluative comments, e.g.: • Whilst firms charged the sugar tax will benefit other firms will lose their competitive advantage **(1+1)** • External costs must be balanced with private benefits of production/ employment is created in the manufacturers of sweets, chocolate, ice cream and fizzy drinks **(1+1)** • Magnitude: the tax only caused a 5% reduction in consumption so removing it may only have limited impact on quantity demanded **(1+1).** • Magnitude: loss of Government revenue of €109 million per year is substantial meaning loss of funds for public services **(1+1)** • Measurement of the size of any external costs caused by extra sugar consumption is difficult to determine and quantify **(1+1)** • Extra sugar consumption may have impact over time with rates of obesity, diabetes and cancer rising later **(1+1)**	**(8)**

Q31.

Question	Ceteris paribus, explain the likely impact on excess supply of this increase in the minimum price. 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 minimum price e.g.: • Minimum price is the lowest price that firms can sell a good **(1)** **Application** 1 mark for increasing the minimum price **(1)**  	

	Analysis Up to 2 marks for showing/describing/explaining the change in excess supply Original excess supply Q_S-Q_D **(1)** increases to Q_{S1}-Q_{D1} **(1)** The increase in excess supply **(1)** is Q_D to Q_{D1} and Q_S to Q_{S1} **(1)** Contraction of quantity demanded /Q_D to Q_{D1} / Extension of quantity supplied /Q_S to Q_{S1} **(1)**	**(4)**

Q32.

Question	Quantitative skills assessed	Answer	Mark
	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 A** **B** is not correct because the minimum price is above the equilibrium price resulting in excess supply **C** is not correct because the increase in price will result in a decrease in consumer surplus **D** is not correct because the minimum price is likely to result in an increase in producer surplus	**(1)**

Q33.

Question	Quantitative skills assessed	Answer	Mark
	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 A** **B** is not correct because this is the area of consumer surplus **C** is not correct because the area the government will spend is GHKJ **D** is not correct because this is the total revenue to farmers	**(1)**

Q34.

Question	Quantitative skills assessed	Answer	Mark
	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 too few permits were issued the price would be higher B is not correct because if too many permits were issued the price for carbon permits would be falling/lower C is not correct because a decrease in the demand for permits would reduce their price	(1)

Q35.

Question Number	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 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)**

Q36.

Question Number	'The HPV vaccine is recommended for all adults in the USA because it reduces the risk of cancer by 88%. If the HPV vaccine was given to all adults 925 000 cases of cancer would be prevented. However only 18.3% of adults were vaccinated between 2011 and 2014 preventing 170 000 cases of cancer.' Evaluate why only 18.3% of adults were vaccinated. 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 • Rational consumers – will maximise their utility. • They will maximise their utility by having the vaccine as it reduces their risk of developing cancer. • Reduces risk of cancers by 88%. • Prevented 170 000 cancers- could have prevented 925 000 • US has private healthcare and low take-up may relate to costs of the vaccine. • The influence of other people's behaviour (herding) may mean people do not have the vaccine as their friends may also avoid the vaccine. • Habitual behaviour- this is a new vaccine and people will not yet be in the habit of having this vaccine. • Inertia- customers may not have the energy to arrange appointments and to have the vaccination. • Poor computational skills may exist where they cannot calculate the benefit in terms of lower cancer risk. • Asymmetric information/ information gaps may exist where people do not have enough information to calculate possible benefits of receiving vaccine compared to the costs of vaccination. • Government needs to better inform people of the benefits of having the vaccine or the risks of not having the vaccine. • People may fear that the new vaccine may have side effects or unknown complications- a rational decision. • People may ignore any external benefits- reducing costs to health services and leads to under consumption of the vaccine. • External benefits- benefits to third parties- so consumers may under consume-as they do not consider the third-party effects • Low income families will be unable to afford vaccinations

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.

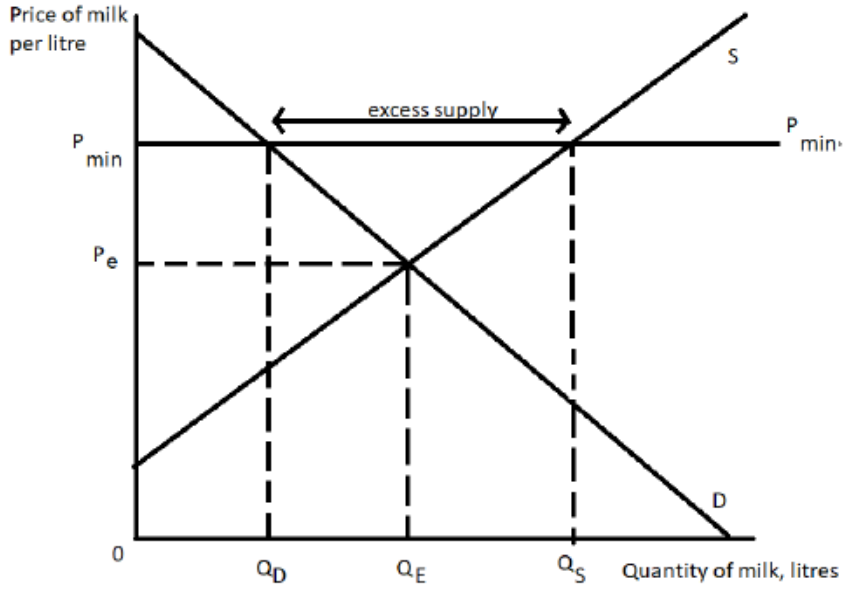
	Evaluation (8 marks) – indicative content • Measurement problem – it is difficult to measure the size of any external benefits/ it is difficult to measure truly how many cancers the vaccine would prevent- figures given are estimates. • Magnitude – a significant number not taking the vaccine with only 18.3% take up. • Time frame – in the short-term people may not take the vaccine but over the long-term with more information and more being protected more will take the vaccine. • Some may be acting rationally as they fear there are unknown problems with the vaccine. • Opportunity costs of having the vaccine. • Large numbers of poor households in the USA cannot afford the vaccine.

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.

Q37.

Question	Explain why this tax on imported cars is an example of government failure. **Answer**	Mark
	Knowledge 1, Application 1, Analysis 2 **Knowledge** 1 mark for defining government failure, e.g.: • where government intervention leads to a net welfare loss/misallocation of resources Or for identifying the type of government failure • This is government failure as it is an unintended consequence **(1)** **Application** Up to 1 mark for applying to the government failure in the stem, e.g.: • Government seized smuggled cars / removed 800 smuggled cars in July 2018 **(1)** • Calculation of a relevant tax payable on a car / the calculation must be for a car worth $74 000 or above **(1)** **Analysis** Up to 2 marks for explaining how this is an example of government failure e.g.: • The 50% tax on imports of cars over $74 000 is substantial **(1)** meaning consumers may try to avoid the tax and smuggle cars **(1)** • The tax on a car valued at $74 000 is excessive at $37 000 **(1)** creating an incentive for people to smuggle cars **(1)** • To avoid the tax consumers will smuggle cars **(1)** meaning the Government will lose tax revenue **(1)** • There will be more unregistered cars on Philippine roads **(1)** owners will not pay for road taxes **(1)** • Owners of smuggled cars will struggle to find people to maintain unregistered cars **(1)** compromising safety of other drivers **(1)**	**(4)**

Q38.

Question	Draw a diagram to illustrate the impact of the introduction of a minimum price for milk in India. **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** 1 mark for showing knowledge on diagram • Original supply, demand and equilibrium price and quantity (1) **Application** Up to 3 marks for the following information included on diagram: • Minimum price set above the market equilibrium (1) • The quantity supplied and quantity demanded with the minimum price in place (1) • Clearly identifying the excess supply (1)  The prices Rs20 (P/P_e) or Rs30 (P_{min}) are also acceptable	(4)

Q39.

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 the excess supply of permits will result in the price decreasing **C** is not correct because the cost of buying permits will decrease **D** is not correct because there is less incentive to invest in cleaner technology when permits are cheaper	**(1)**

Q40.

Question	In 2015 the Government of South Korea introduced a tradeable pollution permit scheme. This scheme applies to 70% of all businesses and includes power generation, manufacturing and domestic aviation. Evaluate the possible benefits of introducing a tradeable pollution permit scheme. **Indicative content**
	Quantitative skills assessed **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 • Tradeable pollution permit scheme- selected firms in specific industries are given a limit to the amount of pollution they can produce. These permits can be bought or sold by firms in the scheme • Affects 70% of all businesses, including power generation, manufacturing and domestic aviation • Firms have the incentive to reduce pollution in order to reduce costs • Firms may develop cleaner technologies to be able to reduce pollution so that they can sell surplus permits • Firms that are able to sell permits can increase their revenues and producer surplus/profit • Firms that pollute at above their permitted level have to incur costs as they need to purchase permits • Each year the Government of South Korea can reduce the number of permits available to be able to reduce carbon emissions/pollution • Emissions from power generation, manufacturing and aviation will be reduced • Reducing external costs- global warming, flooding, wildfires • Profits and employment may fall versus companies not involved in the scheme • Increased revenues resulting from more innovation- as businesses develop ways to reduce pollution • It creates an incentive for businesses to change their behaviour to be cleaner to reduce pollution levels **N.B. Award a maximum of Level 3 if only one benefit is considered**

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 • Does not affect 30% of businesses • 70% of businesses is substantial having large impact • May be no significant impact on profits and employment • Other methods to reduce pollution may be better e.g. An indirect tax might be better as it raises funds for the Government to be able to correct issues caused by pollution • Government failure due to information gaps; if the government does not know the correct number of permits to release • If too many permits are issued, the secondary market price may fall, leading to emissions remaining higher • If too few permits are released businesses may have excessive costs to meet the lower emission levels • Government failure due to high administration costs of the scheme • Government failure due to unintended consequences • Domestic businesses may suffer when competing with foreign businesses • Businesses might look to relocate to countries without tradeable pollution permit schemes	
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.