Mark Scheme (Results)

Summer 2022

Pearson Edexcel International A Level

In Economics (WEC11) Paper 01

Unit 1: Markets in action

General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Section A

Question	Quantitative skills assessed	Answer	Mark
1	–	**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)**
2		**The only correct answer is A** **B** is not correct because housing is not a commodity or currency **C** is not correct because there is no forward market in higher education **D** is not correct because street lighting is a public good that has non-excludability and non-rivalry	**(1)**
3	**QS8**: Make calculations of elasticity and interpret the result **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is D** **A** is not correct because the data provided is for cross elasticity of demand and not for income elasticity of demand **B** is not correct because the data provided is for cross elasticity of demand and not for income elasticity of demand **C** is not correct because fish and rice are substitutes as the value of XED is positive	**(1)**
4	**QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is C** **A** is not correct because the diagram does not consider the relationship between income and quantity demanded **B** is not correct because the diagram does not consider the relationship between price and quantity supplied	**(1)**

		D is not correct because a decrease in price will result in a fall in total revenue/from £1 050 to £800	
5	**QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is B** **A** is not correct because if consumers experienced habitual behaviour they would remain with their existing supplier **C** is not correct because if consumers are poor at computation, they would not be able to calculate their savings from switching **D** is not correct because a rational consumer maximises utility	**(1)**
6	**QS8**: Make calculations of elasticity and interpret the result **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	**The only correct answer is D** **A** is not correct because income increases and quantity demanded increases so this would result in a positive YED value **B** is not correct because the calculation is the wrong way round and with both positive values needs a positive answer **C** is not correct because the calculation is the wrong way round	**(1)**

Section B

Question	Draw a diagram to illustrate the likely impact of this population change on Germany's production possibility frontier. Include an arrow to show the direction of the shift. **Answer**	Mark
7	**Knowledge 1, Application 3** Quantitative skills assessed: **QS4**: Construct and interpret a range of standard graphical forms **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for showing knowledge on diagram • Appropriately labelled axes **(1)** **Application** Up to 3 marks for the following information included on diagram: • Original PPF **(1)** • Directional arrow to show outward shift **(1)** • New PPF further from the origin **(1)** **NB Accept straight line PPFs** **NB Capital goods or consumer goods may be labelled on either axis/Accept other reasonable alternatives on the axes e.g. goods and services** **NB Award 3 marks if increase in only one of the goods is illustrated (as shown below)**	

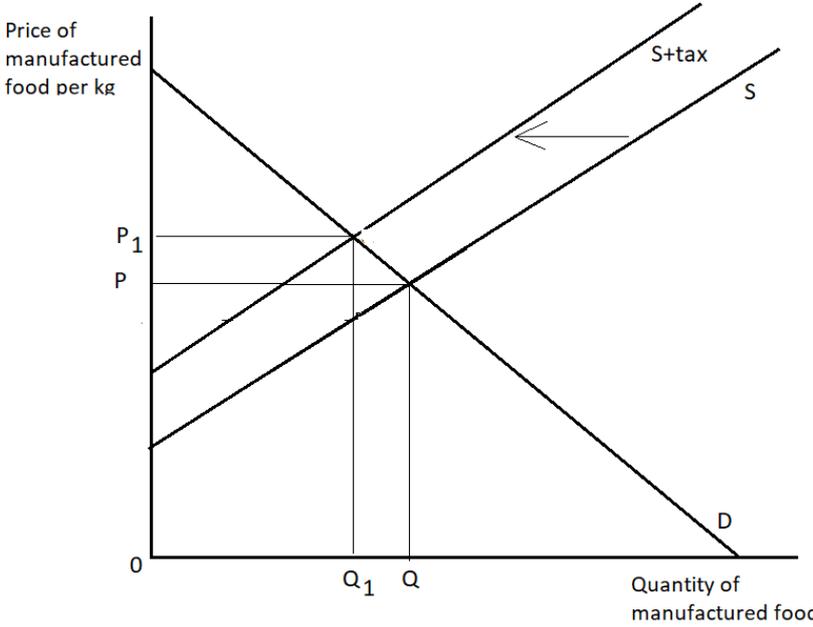**NB award maximum of 2 marks if axis not labelled appropriately**

Capital goods | Consumer goods

PPF   PPF₁

0

(4)
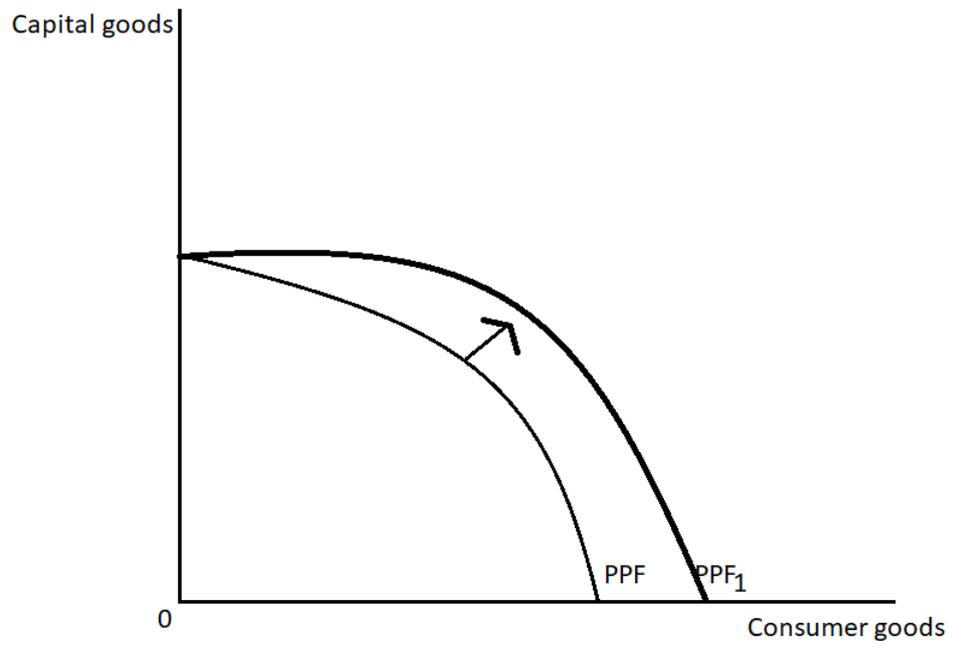
Question	With reference to China, explain the difference between 'capital goods' and 'consumer goods'. **Answer**	**Mark**

8	**Knowledge 2, Application 2**
	
	Quantitative skills assessed:
	
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.
	
	Knowledge
	2 marks for understanding of 'capital goods' and 'consumer goods', e.g.
	• Capital goods are man-made aids to production/
	  Goods used in the production of other capital and/or consumer goods/
	  Includes machines/tools/vehicles/buildings **(1)**
	• Consumer goods are goods used by consumers/
	  Goods that people buy to use themselves/
	  Goods purchase to gain utility/satisfy current needs and wants **(1)**
	
	Application
	2 marks for reference to China e.g.:
	• Expenditure on capital goods was 47% in 2018/ 43% in 2019/capital expenditure decreased 4 **percentage points (1)**
	• Spending on consumer goods increased from 38.7% to 38.8%/ 0.1 **percentage point** increase **(1)**
	• The changes in expenditure in China may result in a reduction in the rate of economic growth/increase current living standards **(1)**	

		(4)

Question	Explain **one** microeconomic reason why the Singapore Government provides streetlights.	Mark
	Answer	
9	**Knowledge 1, Application 1, Analysis 2**	
	QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.	
	Knowledge	
	1 mark for definition of market failure or public goods e.g.:	
	• inefficient allocation of ressources **Or**	
	non-excludable and non-rival **(1)**	
	Application	
	1 mark for applying to the stem, e.g.:	
	• Streetlights are a public good/	
	• 95 000 streetlights replaced/	
	• 19 000 streetlights replaced on average each year **(1)**	
	Analysis	
	Up to 2 marks for explaining one reason e.g.:	
	• Private sector firms are unable to profit from supplying public goods **(1)** as consumers will free ride them without paying **/** it is impossible to exclude people **(1)**	
	• When one person consumes the good it does not limit the consumption by others **(1)** so that it is difficult for private sector firms to charge people to use the good **(1)**	
	• The price mechanism leads to the private sector not allocating enough resources to public goods **(1)** so the government steps in to correct the market failure **(1)**	
	• Governments provide them as they ensure safety **(1)** and private sector firms not providing them could mean it is unsafe **(1)**	
		(4)

Question	Ceteris paribus, calculate the price elasticity of supply of wheat. Show your workings.	Mark
	Answer	
10	**Knowledge 1, Application 3** Quantitative skills assessed: **QS8:** Make calculations of elasticity and interpret the result. **QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge** 1 mark for definition/the formula for price elasticity of supply 　<u>% change in quantity supplied</u> 　% change in price 　**OR** 1 mark for identifying that the good has relatively price inelastic supply/The PES is inelastic as a fall in price sees quantity supplied change by a smaller percentage **(1)** **Application** Up to 3 marks for calculations: 　• Change in quantity ÷ original quantity x 100 　　45m ÷ 732m x 100 = 6.15% **(1)** 　• Change in price ÷ original price x 100 　　23.51 ÷ 152.97 x 100 = 15.37% **(1)** 　<u>% change in quantity supplied</u> 　% change in price 　• 6.15 ÷ 15.37 = 0.40 **(1)** **NB: if correct answer (e.g. 0.399995/0.40) is given, award full marks regardless of working.** **NB 0.40% is awarded 3 marks**	
		(4)

Question	Explain the impact of the introduction of this indirect tax on the market for food products containing salt added by manufacturers.	Mark
	Illustrate your answer with an appropriate diagram.	
	Answer	
11	**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 indirect tax e.g.:	
	Indirect tax is an expenditure tax/consumption of goods and services **(1)**	
	Application	
	1 mark for the following diagram, showing a specific tax where the supply curve shifts to the left rather than pivots	
	Analysis	
	1 mark for showing the change in price	
	• Price increases from P to P_1 **(1)**	
	1 mark for showing change in quantity	
	• Quantity decreases from Q to Q_1 **(1)**	**(4)**

| | 1 mark for showing the government revenue/producer incidence/consumer incidence/change in consumer surplus/change in producer surplus | |

Section C

Question	Define the term 'external costs' (Extract B, line 3).	Mark
	Answer	
12 (a)	**Knowledge 2** Up to 2 marks for defining 'external cost', e.g.: • Negative impact **(1)** on third parties **(1)** • Cost on third party **(1)** • Where MSC > **(1)** MPC **(1)** • Accept examples from Extract B e.g. reducing air quality/children's respiratory diseases/asthma/cancers/noise pollution/greenhouse gases/pollution in city centres **(1)**	**(2)**

Question	With reference to Figure 2, explain the difference between 'renewable resources' and 'non-renewable resources'. **Answer**	Mark
12 (b)	**QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms. **Knowledge 2 Application 2** **Knowledge** 1 mark for definition of renewable resources: • Resources that could be used again and again/replenish themselves/not finite/infinite/ will not run out **(1)** 1 mark for definition of non-renewable resources: • Resources that are finite/will run out/cannot be used again and again/do not replenish **(1)** **Application** Up to 2 marks for application: • Renewable includes wind/hydro/solar/76% in Denmark renewable **(1)** • Non-renewable includes coal/natural gas/oil/24% in Denmark non-renewable **(1)** **NB** do not reward other renewable or non-renewable resources not listed **NB** do not reward can be renewed or cannot be renewed	
		(4)

Question	With reference to Figure 1 and Extract A, analyse **two** reasons why 'the world price of copper increased significantly' between May and December 2020.	Mark
	Illustrate your answer with a supply and demand diagram.	
	Answer	
12 (c)	**Knowledge 2, Application 2, Analysis 2**	

Knowledge 2, Application 2, Analysis 2

Quantitative skills assessed:
QS4: Construct and interpret a range of standard graphical forms
QS9: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.

Knowledge

Up to 2 marks for the diagram showing:

- Original supply, demand and equilibrium price and quantity with correctly labelled axis **(1)**
- Final equilibrium showing higher price **(1)**

Analysis

Up to 2 marks for analysis linked to demand taken from Extract A e.g.:

- Speculators started to buy copper/expected global rate of economic growth to recover **(1)**
- Chinese Government investing in infrastructure **(1)**
- Output of electric vehicles increased therefore demand for copper rose **(1)**

Application

1 mark for application to Figure 1 focused on May and December 2020

- Price increases from $5 100 (accept $5 000 to $5 200) in May 2020 to $7 100 (accept $7 000 to $7 200)/ increased $2 000 (accept $1 800 to $2 200)/ 39% increase in price between May and December (accept 35%-45%) **(1)**

1 mark for diagram:

- Rightwards shift in demand **(1) (accept more than one shift of demand to the right)**

Price per tonne

S

P1

P

0   Q   Q1

D   D1

Quantity of copper
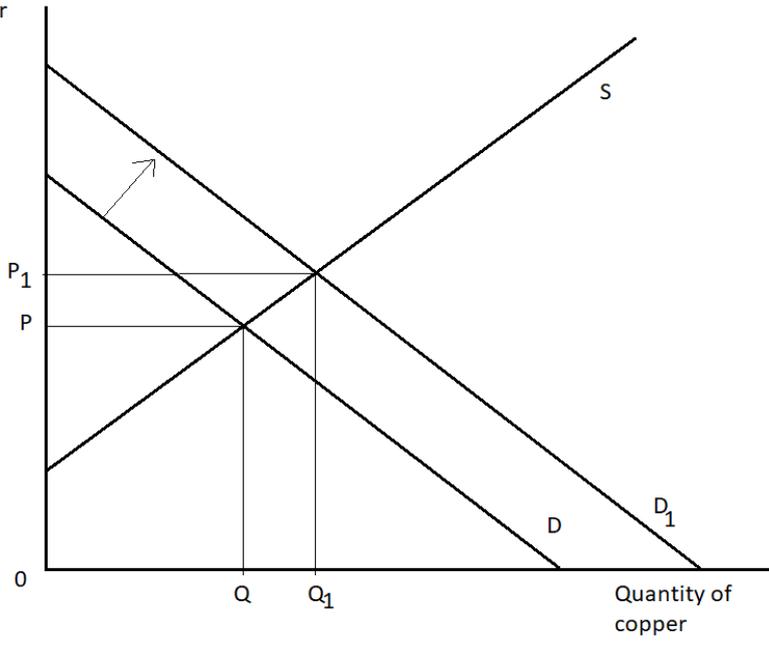
(6)

Question	With reference to Extract A, examine **two** likely effects of an increase in the price of copper on plumbing firms that replace water pipes in customers' homes.	Mark
	Answer	
12(d)	**QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms	
	Knowledge 2, Application 2, Analysis 2, Evaluation 2	
	Knowledge and Analysis	
	Up to 2 marks for identifying two effects and up to 2 marks for linked explanations, e.g.:	
	• Plumbing firms will experience increased costs **(1K)** so supply will shift left/decrease **(1An)**	
	• Producer surplus will decrease **(1K)** as price rises and quantity falls **(1An)**	
	• Plumbing firms may substitute to cheaper alternatives **(1K)** which may reduce the quality of the plumber's job **(1An)**	
	• Plumbing firms may experience reduced profits **(1K)** as a result of higher costs if they use copper piping **(1An)**	
	• Plumbers may have to increase their prices **(1K)** resulting in a decrease in demand **(1An)**	
	Application	
	Up to 2 marks for reference to Extract A/data	
	• 44% increase in price of copper/price increase from below $5 100 to $7 100 **(1)**	
	• Most plumbers prefer to use copper pipes/costs of copper pipes will rise/price of copper pipes increase significantly in the future **(1)**	
	• Reward up to two marks for relevant diagram	
	Evaluation	
	Up to 2 marks for evaluative comments, e.g.:	
	• Magnitude of costs- a 44% copper price increase is substantial and could increase costs considerably **(1+1)**	
	• Depends on how important copper pipes are as a proportion of total costs **(1+1)**	
	• Depends on how much the copper pipe manufacturer absorbs (price elastic demand)/passes on the increase in costs (price inelastic demand) **(1+1)**	**(8)**

| | - Plumbing firms prefer copper pipes so it is very likely they will avoid substituting to alternatives **(1+1)**
 - Depends on the price elasticity of demand for plumbing services, if inelastic then revenue or profit may fall **(1+1)**
 - Plumbers may have stockpiled copper pipes so will not experience the rise in costs **(1+1)** | |

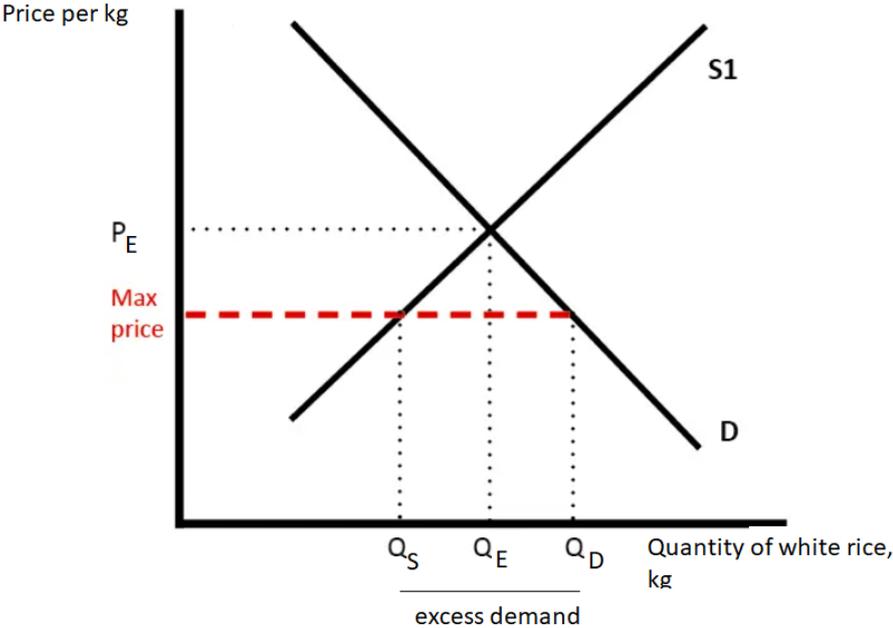| Question	With reference to Extract B and your own knowledge, discuss the possible effects of a subsidy paid to manufacturers of Battery Electric Buses (BEBs). Illustrate your answer with an appropriate diagram.
	Indicative content
12(e)	**Indicative content guidance**
	Answers must be credited by using 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
	- Subsidy- cash grant paid to encourage production $979 million allocated to subsidy for BEBs in the USA - Subsidy- decreases costs of production - Increases supply S to S+Sub - Decreases price P_E to P_1 - Increases quantity Q_E to Q_1 - Increases government spending- $ABCP_1$ - Government spending creates an opportunity cost leaving less for other areas of the economy - Consumer surplus increases FJP_E to FCP_1 - Producer surplus increases - BEB cost more than diesel buses and closes the gap - Will be cheaper to run/maintain BEB than diesel buses - Reduce pollution caused by diesel buses, reducing external costs- respiratory diseases, asthma and cancer- health costs lower/less noise pollution - Increase employment in BEB manufacturers - Decrease in employment in diesel bus manufacturing - BEB manufacturing of batteries cause external costs
	Diagram
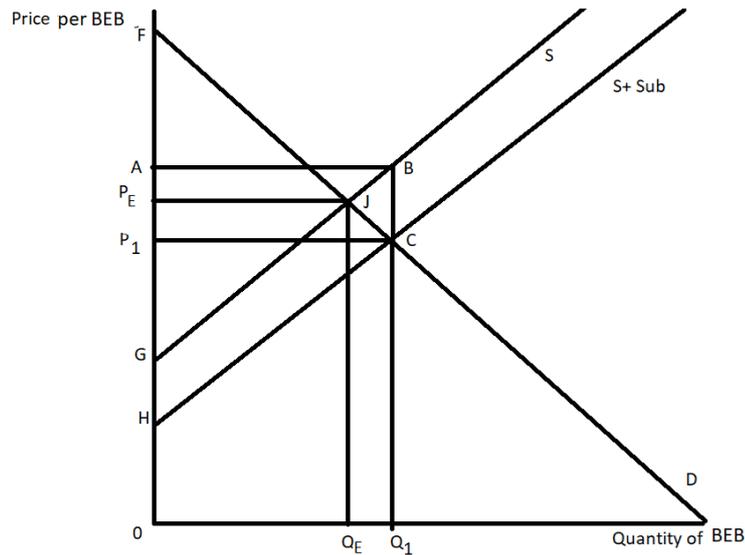
NB Level 3 response requires a diagram

NB Do not reward externalities diagrams

NB Positive effects may be presented as KAA and negative effects as evaluation, or vice versa

G	Mark	Descriptor
	0	No rewardable material
Level 1	1–3	Displays isolated, superficial or imprecise knowledge and understanding of economic terms, principles, concepts, theories and models.
		Use of generic material or irrelevant information or inappropriate examples.
		Descriptive approach, which has no chains of reasoning.
Level 2	4–6	Displays elements of knowledge and understanding of economic terms, principles, concepts, theories and models.
		Ability to apply knowledge and understanding to some elements of the question. Some evidence and contextual references are evident in the answer.
		Chains of reasoning in terms of cause and/or consequence are evident but they may not be developed fully or some stages are omitted.
Level 3	7–8	Demonstrates accurate and precise knowledge and understanding of economic terms, principles, concepts, theories and models.
		Ability to link knowledge and understanding in context using relevant examples which are fully integrated to address the broad elements of the question.
		Analysis is clear, coherent, relevant and focused. The answer demonstrates logical and multi-stage chains of reasoning in terms of cause and/or consequence.
		Evaluation (6 marks) – indicative content • Magnitude- $979 million will help subsidise many BEB in the USA

	• Value of PED is important, if firms demand for diesel buses are inelastic they may not substitute to BEB • Depends on the cross elasticity of demand, if close substitutes firms may substitute to BEB • Time lag- short run impact limited as it takes time to manufacture BEB so long run before impact felt • Still use electricity which may use fossil fuels • Can only travel 150 miles on a fully charged battery • Price of a BEB $887 000 compared to diesel $480 000- so even with subsidy price is much higher • Infrastructure spending will be needed

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

Section D

Question	Evaluate the impact of imposing this maximum price on the market for white rice in Sri Lanka. **Indicative content**
13	**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.

Question	Evaluate possible microeconomic reasons education might be underconsumed
	Indicative content
14	**QS9**: Interpret, apply and analyse information in written, graphical, tabular and numerical forms.
	Indicative content guidance
	Answers must be credited by using the level descriptors (below) in line with the general marking guidance.
	The indicative content below exemplifies some of the points that candidates may make but this does not imply that any of these must be included. Other relevant points must also be credited.
	Knowledge, application and analysis (12 marks) – indicative content
	The proportion of 25-34 year olds who had received university education:
	• 70% in South Korea
	• 50% in the USA
	• 28% in Italy
	The individual only considers their private benefits and does not consider the external benefits e.g.
	▪ lower government healthcare costs as more educated typically earn more and require less healthcare,
	▪ lower government welfare costs as less likely to claim benefits
	▪ lower prison costs as well educated less likely to commit crimes
	▪ workers are more productive when well-educated benefiting businesses
	○ Results in underconsumption of education- Q_{ME}-Q_{SO}
	Diagram

Costs and
Benefits
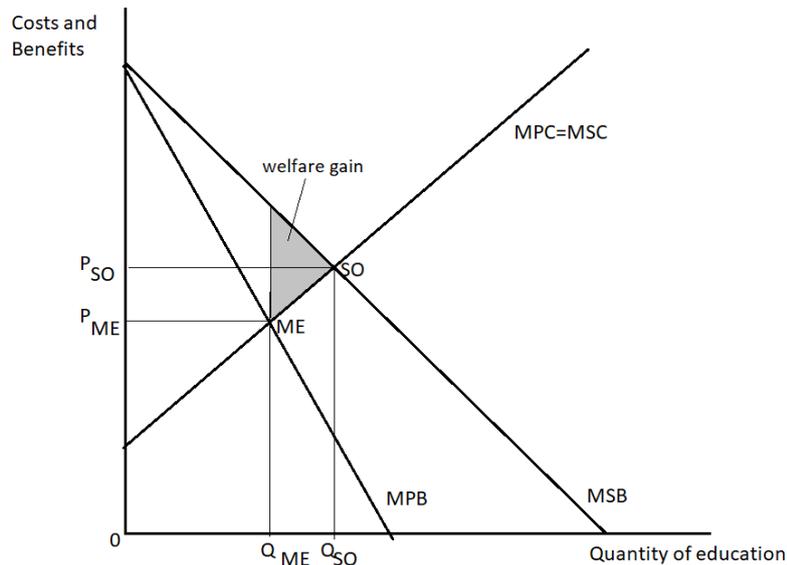
- o Information gaps- people lack information on the returns to education
- o So do not know the benefits so do not invest in education
- o Asymmetric information – different economic agents do not have the same information
- o Consumers of education- the children and their parents may not understand the benefits of education so underestimate them and underconsume
- o Rational decision- assessing the costs and benefits they maximise utility by not investing in education
- o Helping at home ensures enough food can be grown to feed the family
- o Working ensures the child earns money to contribute to the family's income to pay for goods and services
- o In some areas large class sizes and poor-quality education lead to limited rewards from education
- o Cost of education may preclude some families from being able to afford schooling university for their children
- o Lack of provision of education/universities
- It may be irrational behaviour:
  - o Habitual behaviour – generations not accessed education so continues
  - o Poor at computation- unable to calculate the benefits of education
  - o Influence of other people's behaviour- people in the community do not invest in education so others do the same/ cultural influences resulting in underconsumption

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

- It is difficult to place a value on the size of any external benefits
- Information is increasingly available online to correct the information failure
- Universities are likely to provide information on the returns to education
- Some individuals may struggle to read and do mathematics regardless of education
- The estimates of the numbers not in education, not reading or doing mathematics may be inaccurate

		• May be substituting education for training to develop skills and knowledge

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.