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June 2011

GCE Economics
(6EC01) Paper 01

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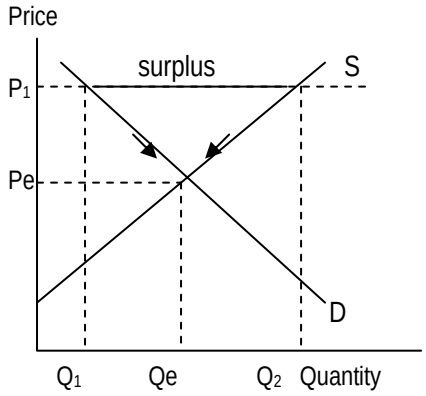
NB: candidates may achieve up to 3 explanation marks even if incorrect option is selected.

NB: candidates may achieve up to 3 marks for explaining three incorrect options (provided three different reasons are offered and each option key is explicitly rejected).

Question Number	Answer	Mark
1	**Answer B** • Definition and development of a positive statement: (one that is based on fact / it can be tested as true or false / a scientific approach to economics / objective approach) (**1 mark**). • Definition of a normative statement (one that is based on value judgement / it cannot be tested as true or false / a non-scientific approach to economics / subjective approach) (**1 mark**). • Application (explicit data reference): statement 1 is positive since it can be tested to see whether tax on cigarettes will rise by 2% above inflation. (**1 mark**) • Application (explicit data reference): statement 2 is positive since it can be tested to see whether tax forms more than 75% of the price of cigarettes. (**1 mark**).	**(4)**

Question Number	Answer	Mark
2	**Answer B** • Definition or explanation of price mechanism (interaction of demand and supply to allocate resources / use of price changes to allocate resources / how changes in demand or supply will alter price to a new equilibrium / or development of the functions of the price mechanism) (**1 mark**). • Explanation of a surplus (the quantity supply exceeds the quantity demand at the current price / excess supply of a good) (**1 mark**). • Application: as price falls demand extends (accept increase) and supply contracts (accept decrease) until the market equilibrium is reached (**1 mark**). • Also award for diagrammatic analysis (identify the surplus / show movement towards price equilibrium) (**1+1 marks)**	

	 **Rejection marks** ➢ Option 'A' is incorrect since an increase in price will provide a profit incentive to enter the industry / raise supply. ➢ Option 'C' is incorrect since government intervention is associated with correcting market failure or a planned economy. ➢ Option 'D' is incorrect since maintaining price stability means the price mechanism cannot function to indicate changes in consumer demand or producer supply.	**(4)**

Question Number	Answer	Mark
3	**Answer D** • Definition of price elasticity of demand or formula (the responsiveness of demand for a good due to a change in its price or %ΔD ÷ %ΔP) (**1 mark**). • Definition of income elasticity of demand or formula (the responsiveness of demand for a good due to a change in income or %ΔD ÷ %ΔY) (**1 mark**) • Milk and cheese are normal goods since they have a positive income elasticity of demand (**1 mark**). • Milk and cheese are price inelastic in demand since they have values below -1.0 / explanation of inelastic demand in terms of the percentage change in demand being less than the percentage change in price. (**1 mark)** **Rejection marks** ➢ Option 'A' or 'C' is incorrect since milk and cheese have a positive income elasticity of demand / do not have a negative income elasticity of demand. (**1 mark**). ➢ Option B is incorrect since milk and cheese are not substitutes / there is no data on actual demand levels for either good. (**1 mark**).	**(4)**

Question Number	Answer	Mark
4	**Answer D** • Definition of producer surplus (the difference between the price firms are willing to sell a good for and the actual market price or the area above the supply curve and below the price line) (**1 mark**) • Original producer surplus is P_1XZ (**1 mark**) • New producer surplus is P_2YZ (**1 mark**) (the original and new producer surplus may be annotated on the diagram) • P1XL being consumer surplus (**1 mark**) **Rejection marks** ➢ Option A is incorrect since this is consumer surplus. (**1 mark**) ➢ Option B is incorrect since this is the original producer surplus. (**1 mark**) ➢ Option C is incorrect since this is the new level of producer surplus. (**1 mark**) NB: Do not double award marks in this question.	**(4)**

Question Number	Answer	Mark
5	**Answer C** • Definition / explanation of division of labour (production broken down into different tasks and labour allocated to each task). (**1 mark**) • Application to sandwich production line e.g. cutting bread, spreading butter and packing sandwiches. (**1 mark**) • Identification of boredom or monotony of a job (**1 mark**) • Increase in recruitment costs / 'total' training costs since increased staff turnover (**1 mark**) **Rejection marks** ➢ Option A is incorrect since division of labour reduces range of workers' skills to specific tasks. (**1 mark**) ➢ Option B is incorrect since training costs per worker falls as just doing specific tasks (**1 mark**) ➢ Option D is incorrect as higher output per head is an advantage of division of labour / means more profits could be made for producer. (**1 mark**)	**(4)**

Question Number	Answer	Mark
6	**Answer A** • Definition of an ad valorem tax (tax set as a percentage of the price of a good). (**1 mark**) • It is an ad valorem tax since there is a pivotal shift in the supply curve. (**1 mark**) • Producers pay most of the tax since demand is price elastic. (**1 mark**) • Producers pay £70 per unit or 10×£70 = £700 (**1 mark**) • Consumers pay £30 per unit or 10×£30 = £300 (**1 mark**) ➢ (These may be shown by annotation of diagram of producer and consumer tax but do not double award). (**1+1 marks**) **Rejection marks** ➢ Option B / D incorrect since a specific tax would cause a parallel shift in the supply curve (**1 mark**) ➢ Option C incorrect as tax incidence falls mainly on producers as shown by diagram (need annotation here) / or use of figures (**1 mark**)	**(4)**

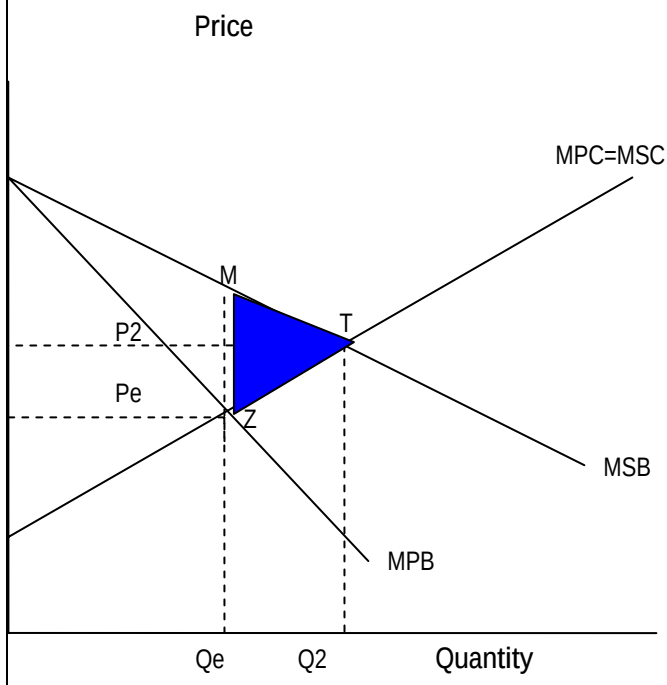
Question Number	Answer	Mark
7	**Answer B** • Definition / explanation of a buffer stock scheme (agency intervention to buy or sell a commodity to reduce price fluctuations) (**1 mark**). • Without government intervention the market price would fall to 0P1 / or a surplus would cause price to fall below P2. (**1 mark**) • Government agency purchases L_1Q_1 or XY of barley (**1 mark**) • Total government agency spending is LQ_1YX (this may be shown by annotation of diagram and stated as such) (**1 mark**) **Rejection marks** ➢ Option 'A' is incorrect since there would be an excess supply XY at minimum price P_2 (**1 mark**). ➢ Option 'C' is incorrect since in a free market the price would fall to P_1 or to P_2 with agency intervention. (**1 mark**). ➢ Option 'D' is incorrect since the agency would only sell from its stockpile if there was a poor harvest. (**1 mark**).	**(4)**

Question Number	Answer	Mark
8	**Answer C** • Definition / understanding of occupational mobility of labour (the ability of labour to change occupations to take available work (accept to change from one job to another job). Also accept definition / understanding of immobility of labour. (**1 mark**) • Some unemployed may lack relevant skills / qualifications / work experience to take available work / identification of structural unemployment. (**1 mark**) • Application to real world example e.g. an unemployed motor vehicle worker may lack skills to become a web designer. (**1 mark**) • Training programmes help increase the skills / qualifications / work experience for the unemployed to gain work in different occupations (**1 mark**). **Rejection marks** ➢ Option A is incorrect as once public goods are provided it is free for all to use / examples of public goods such as street lighting and how this has nothing to do with increasing occupational mobility of labour. (**1 mark**). ➢ Option B incorrect since an increase in tax on buying property will impact / reduce the geographical mobility of labour. (**1 mark**) ➢ Option D incorrect since relocation subsidies will impact / increase the geographical mobility of labour. (**1 mark**).	**(4)**

Question Number	Answer	Mark
9(a)	**KAA = 4 marks** • Definition of opportunity cost (value of next best alternative foregone) (**1 mark**) • Reference to the increase in spending on NHS (£58.5 billion to £115 billion or £127 billion over the period or 96/97 per cent increase) (**1 mark**). • Examples of opportunity cost: (**1+1 marks or 2 marks**). ➢ Lower taxes / which could increase incentive to work. ➢ More funds available for education or other areas of government spending / so improving quality of education. ➢ Less government borrowing / so placing less debt on to future generations or paying lower debt interest. ➢ Discussion of spending in different areas of the NHS. e.g. more funds for managers and less on patient care. • Production possibility frontier diagram depicting opportunity cost by movement along the curve/relevant axes e.g. healthcare spending versus other areas of government spending (**1+1 marks**)	**(4)**

Question Number	Answer	Mark
9(b)	**KAA = 6 marks** Identification of **two** causes (**1+1 marks**) and their development (**2+2 marks or 3+1 marks**) Extract 1 offers three causes: ➢ Ageing population: means more people living into retirement and so greater chance of requiring NHS services / such as nursing homes or treatment for cancer or Alzheimer's disease. ➢ Improved medical treatment: new treatments for illness cost a lot of money / such as better equipment (scanners) or drugs for HIV/AIDS. ➢ Increasing staff costs / now 40% of NHS budget / reflects the increase in employment in the organisation which is biggest employer in Europe. ➢ Increases in NHS funding coming to an end as government spending has to be reduced / general budget pressures of the government. **Note: Accept other causes of increase demand such as rising population, greater public expectations of healthcare treatment, increase in costs of drugs, changing social habits such as obesity and alcohol consumption.**	**(6)**

Question Number	Answer	Mark
9(c)	**KAA 6 marks** • Definition of production possibility frontier (the maximum output potential for an economy when all its resources are fully / efficiently employed) **(1 mark)** • Diagram depicting an outward shift in the Production possibility frontier (**Up to 3 marks**) ➢ Original PPF (**1**) ➢ Outward shift of PPF or movement along PPF (**1**) ➢ Labelling of PPF (Some appropriate labelling of axes e.g capital versus consumer goods or private versus public sector; accept health care versus non health care) (**1**) **NB: Cap diagram at 2 marks if the PPF is not shifted out.** • The increase in healthcare provision will lead to a healthier / more productive workforce / especially as it is free at point of consumption so all can use / less absenteeism from work / longer working life /more advanced technology(**1+1+1 up to 3 marks**) **NB: if no diagram offered award a maximum of 4 KAA marks.** **Evaluation (2+2 marks or 3+1 marks)** • Discussion of magnitude of the increase in government spending/data reference to healthcare as % of GDP. • Discussion of staff wages accounting for 40% of NHS budget so perhaps not much impact on PPF. • Discussion of spending on elderly patients or red tape which may not increase the PPF. • Discussion on how much spending on capital such as new buildings and machinery. • Figure 3 shows that productivity has fallen in the NHS so perhaps less impact on the PPF. • Short run and long run implications. It may take a long time for health care spending to impact on PPF/also there are budget cuts from 2011. • Discussion of whether government spending may have to fall elsewhere (opportunity cost) e.g. education and so PPF may not increase.	**(10)**

Question Number	Answer	Mark
9(d)*	**KAA 8 marks available** • Definition of private benefits (**1+1 marks**) ➢ Benefit internal to an exchange / first or second party effect / internal to the production or consumption of a good / benefit included within the price mechanism / social benefit minus external benefit / revenue received by producer / satisfaction received by consumer. • Definition of external benefits **(1+1 marks)** o Benefit external to an exchange / positive third party effect / spillover from production or consumption / benefit which the price mechanism fails to take into account / benefit outside of a transaction / social benefit minus private benefit. Diagram (**Up to 4 marks**) • MPB and MC curves (**1**) • MSB curve (**1**) • Identification of market equilibrium and social optimum output or price (could be mentioned in the text) (**1**) NB: merely stating under-consumption is not sufficient. • Triangle of welfare gain (accept welfare loss)(**1**) **Note: accept a parallel outward shift of the MSB curve**  • Explanation of private benefits (**Up to 3 marks**): improved health to those directly treated / increased life expectancy / increased income from employment. Also accept benefits direct to the NHS such as employment, revenue and trading surpluses.	

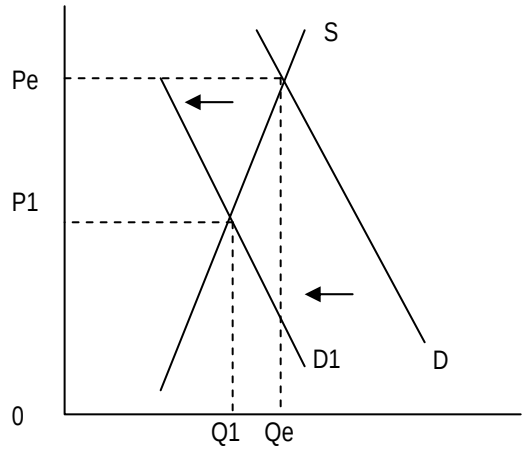
	• Explanation of external benefits (**Up to 3 marks**): healthier workforce for employers / so greater productivity / less absenteeism / more profits / increase in tax revenues / increase in inward investment / reduction in spread of contagious diseases. **NB: Benefits must be explicitly identified as private or external benefits. Otherwise award no marks for this explanation.** **NB: if no diagram then award a maximum of 6 marks for KAA** **Evaluation: (2+2+2 marks or 3+3 marks)** ➢ Discussion of magnitude of private benefits: Extract 1 refers to more than 1 million people being treated every 36 hours. This must have a dramatic impact on the health of the population. ➢ Short-run and long run effects: since 1997 the costs of providing healthcare free at point of consumption has increased dramatically. ➢ Prioritise between private and external benefits. ➢ Discussion of whether the benefits outweigh the costs of funding the NHS. Inefficient use of resources. ➢ Difficult to quantify / attach a monetary value on external or private benefits / possibility of over-provision or under-provision of healthcare funds (asymmetric information). ➢ There may be significant costs associated with extra funding of healthcare (opportunity cost) / higher taxes / more government borrowing / less funds for other areas of expenditure. **Quality of written communication skills will be assessed in this question based on the candidate's ability:** • To present an argument and conclude on the basis of that argument. • To Organize information clearly and coherently. • To use economics vocabulary appropriately. • To use grammar, spelling and punctuation appropriately.	**(14)**

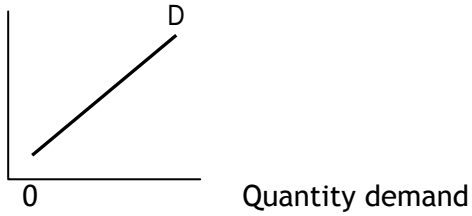
Level	Mark	Descriptor
Level 1	1-4	Definition of private and external benefits.
Level 2	5-8	Application of private and external benefits to healthcare.
Level 3	9-10	Application of private and external benefits to healthcare with diagram.
Level 4	11-12	Up to one evaluation point.
Level 5	13-14	Two or more evaluation points.

Question Number	Answer	Mark
9(e)*	**KAA 8 marks (2+2+2+2 marks or 3+3+2 marks)** **Candidates may argue either way. The development of one point of view constitutes KAA. The alternative view is considered as evaluation** Definition / understanding of government failure (Government intervention leads to a net welfare loss / inefficient allocation of resources / intervenes to correct market failure but makes it worse) (**1 mark**). **Government failure may have occurred since**: ➢ Extract 2 refers to the faster increase in NHS managerial staff over nurses and doctors / adding to bureaucracy / use of figures. ➢ Extract 2 refers to the introduction of competition in the NHS may have added to bureaucracy and fragmentation according to Dr Brent of BMA. ➢ Figure 1 refers to the reduction in number of hospital beds suggests possible reduction provision of service / use of figures. ➢ Figure 3 refers to the decrease in productivity for NHS workers between 1997 and 2007 / use of figures. ➢ Extract 1 refers to current inefficiencies in the NHS – the government should have taken action earlier to reduce them (cost of purchasing goods and services, staff sickness, IT programme, use of buildings). ➢ There may be government failure since the extra resources used in healthcare could have been allocated to other areas (opportunity cost). **Evaluation (2+2+2 marks or 3+3 marks)** **Government failure may not have occurred since:** ➢ Figure 2 shows hospital waiting times in excess of 13 weeks have fallen / use of figures. ➢ More managers may be required to improve the allocation of funds and health provision since a huge operation / reference to the massive NHS budget of £127 billion in 2011. ➢ The quality of healthcare may have improved – it is difficult to measure this against productivity shown in	

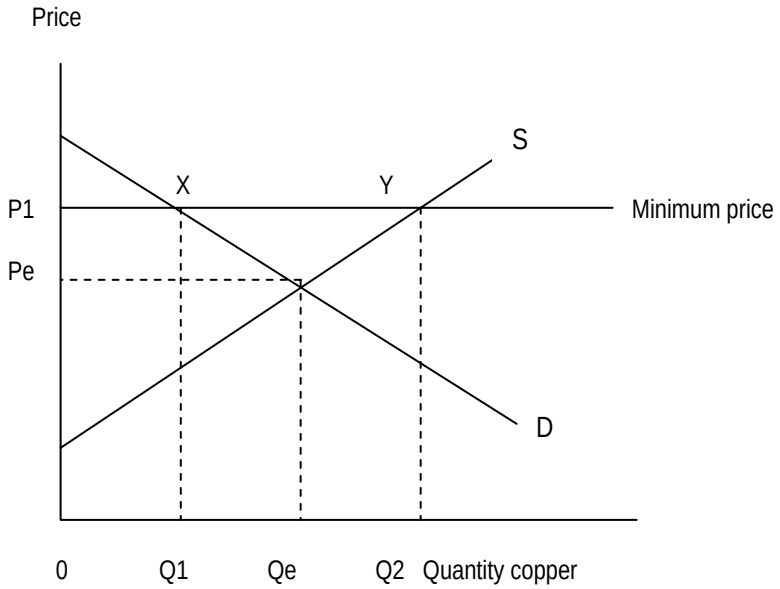
	Figure 3. ➢ Extract 1 refers to faster treatment of patients in hospital as revealed by the fall in the average length of stay in hospital / from 8.8 to 6.3 days. ➢ The health reforms are to do with opening up to competition – more of a market failure rather than government failure. ➢ Extract 1 shows the government has identified ways to increase NHS efficiency (cost of purchasing goods and services, staff sickness, IT programme, use of buildings). ➢ Figure 3 shows rising productivity between 2005 and 2007 / use of figures. ➢ Discussion of data accuracy as huge sums of money involved so hard to tell if there has been government failure. ➢ Other things are not equal / other factors may have affected the general health of the population e.g. decrease in smoking or increase in alcohol consumption. ➢ Discussion of short run and long run effects e.g. only time will tell if there is government failure from the health reforms.	**(14)**

Level	Mark	Descriptor
Level 1	1-2	Definition of government failure and basic reference to information.
Level 2	3-6	Use of information to present one view on government failure.
Level 3	7-10	Extensive use of information to present one view on government failure and one evaluation comment.
Level 4	11-14	Extensive use of information to present one view on government failure and two or more evaluation comments.

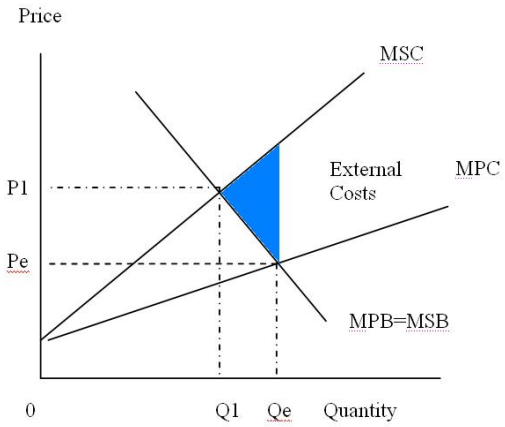
Question Number	Answer	Mark
10(a)	Correct diagram (**3 marks**)  ➢ Original demand and supply, depicting equilibrium price (1) ➢ A decrease in the demand curve (1) ➢ Decrease in equilibrium price (1) **NB: If supply curve is also shifted as well as the demand curve, then award a maximum of 2 marks for the diagram.** Reasons for fall in price of copper: lower global economic growth / falling demand from China / decrease in demand for motor vehicles and construction sectors (**1 mark**). Reference to price fall from $8,940 to just $2,871 between April 2008 and December 2009 or a 68% reduction. (**1 mark**)	**(4)**

Question Number	Answer	Mark
10(b)	**KAA = 6 marks** • Definition of income elasticity of demand. (**1 mark**) • Explanation of a normal good (as income increases so will demand increase or vice versa). (**1 mark**) • Copper is a normal good since it has a positive income elasticity of demand (**1 mark**). • Explanation of an inferior good (as income increase then demand will decrease)(**1 mark**). • An inferior good has a negative income elasticity of demand (**1 mark**) • Data reference (the recession led to a decrease in demand for copper) (**Up to 2 marks**) • Diagram depicting demand for copper as a normal good (**1 mark**) Level of income  • Accept higher order analysis e.g. 'ceteris paribus' may not hold, so other factors have affected the demand for copper (**1 mark**) **NB: Accept plausible case for stating copper is an inferior good (Lower global economic growth implies incomes rising at a slower rate but demand is falling – referred to in first paragraph of Extract 1) (Up to 2 marks).** **NB: Cap at 4 marks if no reference to information in Extract 1**	**(6)**

Question Number	Answer	Mark
10(c)	**KAA = 6 marks** • Definition or formula of price elasticity of supply (the responsiveness of supply due to a change in price or %ΔS ÷ %ΔP) (**1 mark**). • Understanding of inelastic or elastic supply (this may be implicit or defined) (**1 mark**). • Diagram depicting a price inelastic or price elastic supply curve correctly stated (**1 mark**) **Reasons for supply being price inelastic include (2+2+2 marks):** ➢ Extract 2 indicates lengthy planning enquiry to develop new mine at Pebble Mill / danger of protests from local communities. ➢ Many fixed inputs in short run such as building roads / rail lines or dams or construction of open cast mine. ➢ Time taken to train local workforce in mining. ➢ Full capacity / no spare stocks of copper. **Reasons for supply being price elastic include**: ➢ All inputs become variable in long run / understanding of long run. ➢ Huge scale of operations suggests a lot of copper can be produced / spare capacity. ➢ New firms may enter industry attracted by high prices / firms exit as prices collapse. **Evaluation (2+2 marks)** • Use of data in an evaluative manner e.g. magnitude of price changes make it difficult for supply to respond proportionately in the same manner. • Existing stockpiles could be released on to market – so supply could be elastic in short run / non-perishable commodity so easy to store. • Finite amount of copper available in world – so ultimately highly price inelastic in supply. • Recycling schemes could make supply more elastic as high prices make such schemes profitable. • Economy is coming out of recession so plenty of spare capacity and factor inputs available – so make supply elastic.	**(10)**

Question Number	Answer	Mark
10(d)*	**KAA = 8 marks** • Definition of a minimum pricing scheme (a floor price / a minimum price set by an agency (**1 mark**) • The scheme requires government agency / producer organisation to set minimum price and purchase surpluses at this price (**1 mark**) • Diagram / explanation (**Up to 4 marks**) ➢ Demand and supply curves with equilibrium price (1). ➢ Minimum price line (can be below equilibrium) (1). ➢ Identifying excess supply or surplus (1). ➢ Area of spending by agency (1).  • Economic effects may include: increase in quantity supply and decrease in quantity demand / increase revenues and profits / increase in employment / increase in investment / increase production costs for firms that use copper e.g. builders and car manufacturers / reduce consumer surplus / increase producer surplus. . (**1+1+1+1 or 2+2 marks**) **NB: If no diagram award a maximum of 4 marks for KAA** **Evaluation (2+2+2 or 3+3 marks)** **The scheme is unlikely to be successful since** ➢ Problem of rising prices - mean price fluctuations can still occur above the minimum price. ➢ Problem of purchasing the surplus copper output / will run into huge sums of money / opportunity cost. ➢ It requires all the major copper producers to participate in the scheme to be successful /danger of secondary markets developing. ➢ Problem of deciding on the price to set the minimum price – if below	

	market equilibrium price then it has no impact / if too high then it causes problems of excess production. ➢ Discussion of price elasticity of demand and price elasticity of supply which determine the size of surplus and expenditure on scheme. ➢ Cost of storage / non-perishable commodity. ➢ It may reduce competitiveness / efficiency of firms since guaranteed price. **NB: Do not award for discussion of a buffer stock scheme but be prepared to award marks where relevant e.g. the minimum price and purchase of stock.**	**(14)**

Question Number	Answer	Mark
10(e)*	**KAA = 8 marks** • Definition of external costs: cost external to an exchange / negative third party effect / spillover from production or consumption / cost which the price mechanism fails to take into account / cost outside of a transaction / social cost minus private cost equals external cost (**1+1 marks**). • Application of external costs to copper mining: damage to tourism, fishing and canning industries of $400 million / noise and visual pollution / loss of employment in these industries and negative multiplier effects / falling property prices / impact on government finances / impact on health of native communities / impact on Balance of trade (**Up to 2+2 marks**). **NB: if the term 'external costs' is not mentioned then cap at 1 mark.** • Diagram depicting external costs in production (**Up to 4 marks**): ➢ MB and MPC curves (1) ➢ MSC curve (1) ➢ Identification of social optimum and market determined equilibrium positions (could be mentioned in the text) (1) NB: merely identifying over-production is not sufficient. ➢ Welfare loss triangle (shaded area) where marginal social costs exceed marginal social benefits for given output slice (1).  **NB: If no diagram award a maximum of cap at 4 marks for KAA.**	

	Evaluation (2+2+2 marks or 3+3 marks) • Significance of external costs: the market equilibrium output will exceed the social optimum output / copper is over-produced and over-consumed / market price differs from social optimum price (**1+1 marks**). • Magnitude/ time factor: $400 million per annum fishing industry could be destroyed permanently (**1+1 marks**). • Prioritise among the external costs. • Discussion of short run and long run effects e.g. initial construction may cause greatest amount of external costs. • Difficult to quantify and attach monetary value to external costs. • The external costs could be reduced through government intervention e.g. regulation / taxation. Also the mining companies could take measures to reduce environmental damage / compensate victims. • External costs could be mitigated by the benefits associated with copper mine (1 + 1 + 1 marks) ➢ A new source of income and employment in the area – some 1,000 jobs directly created. ➢ Export earnings from copper could improve Balance of trade. ➢ Help diversify the Alaskan economy. ➢ Tax revenue collected from the mining companies can improve local infrastructure. **Quality of written communication skills will be assessed in this question based on the candidate's ability:** • To present an argument and conclude on the basis of that argument. • To organise information clearly and coherently. • To use economics vocabulary appropriately. • To use grammar, spelling and punctuation appropriately.	**(14)**

Level	Mark	Descriptor
Level 1	1-2	Definition of external costs
Level 2	3-4	Application of external costs to copper mining.
Level 3	5-8	Diagrammatic analysis of social and market equilibrium positions
Level 4	9-10	One evaluation point developed.
Level 5	11-14	Two or more evaluation points developed.

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