

Mark Scheme (Results)

Summer 2012

GCE Economics (6EC01)
Paper 01

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Summer 2012
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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.

NB: candidates may achieve up to 3 explanation marks even if the 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 identified).

Question Number	Answer	Mark
1	• A (1 mark)	
	Definition of production possibility frontier (maximum output potential for an economy when all its resources are fully / efficiently employed) (1 mark).	
	W to V shows actual output increasing so unemployed resources falling or unemployment falling / annotation of diagram to show rise in output (1 mark).	
	W to V shows the output gap falling / reduction in spare capacity / economy moving closer to the full employment level of output / annotation of diagram to show a decrease in output gap (1 mark).	
	W to V shows a more efficient use of resources (1 mark).	
	Accept numerical application (1 mark).	
	Rejection marks	
	Option B incorrect since position Z is unobtainable.	
	Option C incorrect since economy already at full employment level.	(4)
	Option D incorrect since an outward shift in the frontier shows an increase in output potential.	

Question Number	Answer	Mark
2	• D (1 mark)	
	 Air passenger duty is an indirect tax or specific tax or expenditure tax / set as a fixed amount per unit of good (1 mark). 	
	 The tax has the effect of increasing production costs (1 mark). 	
	 Reason for the tax increase: an environmental tax to reduce carbon emissions from air travel / to reduce negative externalities (1 mark). 	
	 Diagrammatic analysis or written explanation: parallel shift of supply curve inwards / tax area or incidence identified / original price and new price identified on the diagram (1+1 marks). 	
	Rejection marks	
	Option A incorrect as the tax increase will reduce consumer surplus (need to show by diagram or define consumer surplus – only award the definition when used for rejection of A) (1 mark).	
	Option B incorrect as tax revenue will increase if demand is price inelastic (need to show by diagram or explain meaning of inelastic in terms of causing a proportionate smaller fall in demand) (1 mark).	
	Option C incorrect as producer surplus will decrease as the government takes some of the producer surplus as tax revenue / need to show by diagram or define producer surplus – only award the definition when used for rejection of C (1 mark).	(4)

Question Number	Answer	Mark
3	• B (1 mark)	
	 Definition of price mechanism (the interaction of supply and demand to allocate resources) (1 mark). 	
	 Written explanation of the price mechanism functioning e.g. an increase in demand will raise price and so give a signal to firms to raise the output of a good / a decrease in demand will reduce price and so signal to firms to reduce output / incentive or profits effects (1+1+1 marks). 	
	 Diagrammatic explanation showing a rise in demand leading to a higher price and more output or a fall in demand leading to la lower price and less output (1+1 marks). 	
	Price .	
	P1 Pe D1 D1	
	Qe Q1 Quantity	
	 Accept rationing function e.g. the price mechanism allocates goods to those consumers willing to pay the highest price (1 mark) 	
	Rejection marks	
	 Option A incorrect since a shortage can be eliminated by allowing price to rise so demand contracts or falls back / price would only fall if there was an excess supply. (1 mark). 	
	 Option C incorrect since a surplus is eliminated by price falling so demand extends or rises / price would only rise if there was an excess demand (1 mark). 	(4)
	 Option D incorrect since government intervention is to correct market failure or the failure of the price mechanism concerning issues of income distribution (1 mark). 	

Question Number	Answer	Mark
Question Number 4	 D (1 mark) Definition of subsidy (government grant to increase production / reduce price of a good) (1 mark). The subsidy acts to reduce production costs (1 mark). Diagram showing subsidy: increase in supply / original and new equilibrium price identified / subsidy area or unit subsidy identified (1+1 marks). The subsidy will encourage people to buy electric powered cars which are more environmentally friendly (1 mark). Rejection marks Option A or C incorrect as petrol powered cars / bus travel are substitutes (1 mark). Option B incorrect since demand for electric cars will rise due the subsidy 	
	electric cars will rise due the subsidy causing a fall in price (1 mark)	(4)

Question Number	Answer				Mark
5	 C (1 mark) Explanation of equilibrium price (a price where the 				
	•	•	ne quantity supp		
			juilibrium price a m price £2.10 (1		
		0 0	supply and dema e inwards (1 ma		
	 Completion marks). 	of new supply	schedule in tabl	e (2	
	NB: Award 1 i table or in wr		tifying just 16 tion	0 on the	
	Price per packet	Quantity demand (000)	Quantity supply (000)	New supply (000)	
	£2.00	200	160	120	
	£2.10	180	180	140	
	£2.20	160	200	160	
	£2.30	140	220	180	
		correct as this i	s the original ed		
			t double awar		
 Option A incorrect since the increase in production cost will lead to firms passing on costs to consumers via an increase in price (1 mark). 					(4)
	Option D inc the demand		supply is 40 000	more than	

Question Number	Answer	Mark
6	•B (1 mark)	
	Definition of public goods (non-rivalry and non-excludability or non-rejectable) (1 mark).	
	 Definition of market failure (price mechanism / market fails to allocate resources efficiently or leads to a net welfare loss) (1 mark). 	
	 Definition of a free market economy (the price mechanism is used to allocate resources) (1 mark). 	
	NB: just a maximum of 2 definition marks available	
	 Public goods are under-provided due to the free rider problem / where it is possible for people to consume a good without paying for it once it is provided / inability of firms to collect revenue from consumers / Examples: defence, street lighting, lighthouses, flood defence schemes. (1+1 marks). 	
	Rejection marks	
	 Option A incorrect since prices falling mean the market is working to eliminate the surplus. (1 mark). 	
	Option C incorrect since firms will exit the market when lack of profits or losses made – a reflection of the market in operation as resources could be put to better use (1 mark).	(4)
	 Option D incorrect since this is government failure / there is no government intervention in a free market economy (1 mark). 	

Question Number	Answer	Mark
7	• C (1 mark)	
	 Definition of geographical mobility of labour (the ability of labour to take available work in different areas/regions) (1 mark). 	
	NB: accept definitions of geographical immobility of labour as long as it is made explicit.	
	A decrease in regional house price differences means that many workers find it easier to afford or purchase property in different areas they move to (1 mark).	
	 Application e.g. workers from the north find it easier to move to London or workers from the countryside can move to towns and cities (1 mark). 	
	 Accept numerical example of house price differentials / differentials falling (1 mark). 	
	Rejection marks	
	Option A incorrect since increase in average age of workforce typically leads to older workers being settled in location – so reduces mobility of labour (1 mark).	
	Option B incorrect since a significant increase in rail and bus fares makes it more expensive to travel to and from work. (1 mark).	(4)
	Option D incorrect since a decrease in skilled workers will decrease occupational mobility of labour (1 mark).	

Question Number	Answer	Mark
8	C (1 mark)Explanation of imperfect market information	
	(people lack knowledge to make informed choices) (1 mark).	
	NB: accept an accurate definition of asymmetric information as an alternative definition mark.	
	 Understanding of a pension (e.g. contributions that workers make from their income which they can use on retirement) (1 mark). 	
	 Application: workers may be unaware that their state pension might be insufficient to live off / the long time period from working to retirement may lead to people to not make adequate provision (1+1). 	
	 Definition of market failure (the price mechanism / market fails to allocate resources efficiently or leads to a net welfare loss) (1 mark). 	
	 Also award for idea: workers may rely on other sources of income / wealth (for example, downsizing their home / sale of second home / shares and bonds) (1 mark). 	
	NB: a definition of public goods is not accepted unless used in the context of rejecting option A.	
	Rejection marks	
	Option A incorrect since pensions are excludable or rivalrous or rejectable in consumption so not public goods (1 mark).	(4)
	Option B incorrect since there is an opportunity cost to making pension contributions in terms of forgoing current spending (1 mark).	
	 Option D incorrect since tax incentives on pensions would lead to increased amount of pension contributions (1 mark). 	

KAA = 4 marks	
 Explanation of positive statement (1 mark): Factual statement / can be tested as true or false / based on scientific or objective approach to the subject. 	
 Application: title of extract 1 is positive since possible to test whether the tuition fees will increase / up to £9000 (1 mark). 	
 Explanation of normative statement (1 mark): Value judgement / cannot be tested as true or false / based on a non-scientific or subjective approach to the subject. 	
NB do not accept use of term 'opinion'.	
 Application: title of extract 2 is normative since the term 'unfair' is a value judgement (1 mark). 	(4)
	 Factual statement / can be tested as true or false / based on scientific or objective approach to the subject. Application: title of extract 1 is positive since possible to test whether the tuition fees will increase / up to £9000 (1 mark). Explanation of normative statement (1 mark): Value judgement / cannot be tested as true or false / based on a non-scientific or subjective approach to the subject. NB do not accept use of term 'opinion'. Application: title of extract 2 is normative since the term 'unfair' is a value judgement

Question Number	Answer	Mark
9(b)	KAA = 6 marks	
7(3)	 Definition of opportunity cost (value of next best alternative foregone) (1 mark). 	
	 A general comment that fees have increased and so leading to an increase in opportunity cost (1 mark). 	
	 Data reference: tuition fees are now £9000 a year / increased from £3,290 to possibly £7000 or £9,000 a year / monthly repayments e.g. £30 to £293 (1+1 marks). 	
	 Examples of opportunity cost include what they could use the fees for: for example, motor vehicle / holiday / clothing / loss of savings (1+1 marks). 	
	 Example of opportunity cost include alternative use of the interest payments of the student loan (1 mark). 	
	 Examples of opportunity cost in terms of what they could use their time for: loss of potential earnings from work / loss of time to travel and see the world / loss of social time (1+1 marks). 	
	 Accept related comments for example, students from low income families may have lower opportunity cost / since receive grants up to £3,250 per year (1+1 marks). 	
	 Diagram showing opportunity cost by use of a production possibility frontier (budget line) where there is a movement along it / opportunity cost identified /with relevant axes such as tuition fees and an alternative use of the money (1+1 marks). 	(6)
	 Accept comment that opportunity cost may be low since not many jobs available (1 mark). 	
	NB: award a maximum of 5 marks if no reference to the information provided.	

	Mark
KAA = 8 marks	
 Definition of private benefit (1+1 marks): benefit internal to an exchange / benefit the price mechanism takes into account / benefit from the market transaction / benefit to first and second party / benefit direct to consumer or producer from economic activity. 	
 Definition of external benefit (1+1 marks): benefit external to an exchange / benefit the price mechanism ignores / benefit outside of the market transaction / positive third party effect / indirect benefit to consumer of producer from an economic activity. 	
Costs / Belnefits	
MPC=MSC MPC=MSC	
Pe Z MSB	
Qe Q2 Quantity	
Diagram (up to 4 marks)	
MPB and MPC curves (this can also be MPB and MSC curves) (1 mark)	
MSB curve (accept parallel shifts in the MSB curve) (1 mark)	
Identification of market equilibrium (Qe) and social efficient equilibrium (Q2) (1 mark).	
Triangle of welfare gain (accept welfare loss)(1 mark).	
• Explanation of private benefits (1+1 or 2	
	Definition of private benefit (1+1 marks): benefit internal to an exchange / benefit the price mechanism takes into account / benefit from the market transaction / benefit to first and second party / benefit direct to consumer or producer from economic activity. Definition of external benefit (1+1 marks): benefit external to an exchange / benefit the price mechanism ignores / benefit outside of the market transaction / positive third party effect / indirect benefit to consumer of producer from an economic activity. Costs / Benefits MPC=MSC P2 Pe MPB and MPC curves (this can also be MPB and MSC curves) (1 mark) MSB curve (accept parallel shifts in the MSB curve) (1 mark) Identification of market equilibrium (Qe) and social efficient equilibrium (Q2) (1 mark). Triangle of welfare gain (accept welfare loss) (1 mark).

marks): these include the extra £160,000 of average higher earnings for a graduate over working life / private benefit of more status or perks from job / more knowledge / more revenue for universities / raise occupational mobility to individual.

Explanation of external benefits (1+1 or 2 marks): these include additional revenue or profits to firms / additional productivity to the economy / attraction of foreign investment / increased international competitiveness / increased tax revenue for government / lower unemployment / raise occupational mobility (NB occupational could be both a private and external benefit).

NB: these benefits must be clearly identified as either private benefits or external benefits

NB: If no suitable diagram award a maximum of 4 KAA marks

Evaluation (3+3 or 2+2+2 marks)

Private benefits

- ➤ Uncertainty of the value of private benefits: No guarantee that an individual graduate will earn £160,000 more over working life / many may work part-time or earn below £21,000 and so avoid repayments.
- ➤ Uncertainty of value of private benefits since: graduate unemployment remains high / 8.9%.
- The type of course studied for and the institution studied at might affect earnings / quality of education to the individual.
- > Time lag between university study and the reward of increased earnings.
- ➤ The estimated additional earnings of £160,000 has to be compared with financial costs of tuition fees of £9,000 per year / plus interest charges / plus living expenses / also the loss of potential income from work over the three or more years of taking degree.

External benefits

Uncertainty of the value of external benefits: Difficult to quantify and attach a monetary value to university education / quality of education may vary.

- Value of external benefits to firms may be exaggerated – still need to train new staff.
- ➤ Problem of other countries spending higher percentage of GDP on university education so external benefits to UK may be limited if quality of university education lags behind.
- > A brain drain as some graduates move abroad to work.

(14)

Question Number	Answer	Mark
9(d)	KAA = 6 marks	
, (d)	 Definition or formula for price elasticity of demand (1 mark). 	
	• Identification that the rise in tuition fees is likely to reduce the number of applications (1 mark).	
	• Demand is price inelastic for all students (could be shown by diagram) / use of Extract 2: for example, most A' Level students still intend to apply to university (line 15). (1+1 marks).	
	• Reference to the information in Extract 2: demand is relatively more inelastic for students from better-off households than low income households / data use (9% forecast fall as opposed to a 14% forecast fall) (1+1 marks).	
	Accept the following combinations to gain 2+2 marks	
	Calculations of price elasticity of demand:	
	➤ Low income students: -14% ÷ 3710 / 3290 × 100	
	(2 marks)	
	Better-off students: -9% ÷ 3710 / 3290 × 100	
	(2 marks)	
	Also if part of the method is correct 7000 – 3290 ÷ 3290 then award up to 1 mark .	
	Accept correct calculations:	
	Low income students: price elasticity of demand is -0.12 (2 marks)	
	NB: accept answers near this calculation such as -0.13 or -0.11. Accept answer without the minus sign.	
	Better off students: price elasticity of demand is -0.07 (2 marks)	
	NB: accept answers near this calculation such as -0.06 or -0.08. Accept answer without	

the minus sign.

Evaluation (2+2 marks)

- Reliability of the research: small scale study of 730 students / students' not stating truth or changing mind.
- Impact on student applications vary between universities / the prestigious universities may have no decrease in demand but the new universities face a bigger decrease in demand.
- Impact on applications vary between courses / Medicine and Law may have no decrease in demand but Arts and Humanities face a large decrease in demand.
- Tuition fees are increasing up to £9,000 for many universities - so could be even bigger impact on number of applications.
- There are government grants of £3250 per year and university bursaries for low income students.
- Discussion of availability of substitutes / study at overseas universities or training courses.
- Discussion of the effects of the previous large increase in tuition fees shown in Figure 2 / in 2006 a 3% fall in applications / but there is a long term upward trend.

(10)

Question Number	Answer	Mark
9(e)*	KAA = 8 marks (2+2+2+2) and evaluation 6 marks (2+2+2 or 3+3):	
	NB: discussion of both positive and negative effects of the increase in tuition fees represents an argument and so one side may be regarded as KAA and the other evaluation.	
	Consideration of possible effects on different groups:	
	Students / parents	
	 Higher opportunity cost / higher financial costs / reference to loan repayment costs in Figure 1 / higher student debt. 	
	 A decrease in number of young people going to university. 	
	 Hardship for students from low income households / some development. 	
	 Greater value placed by students on university education / reduction in student drop-out rates. 	
	 Switch to vocational courses and fewer arts and humanities based courses / 36 000 cut in university places by 2012. 	
	 Students may consider local university so as to reduce accommodation costs / option of studying overseas. 	
	Universities	
	 A possibility of increased revenues and income / consideration of price elasticity of demand: 	
	increased funds for investment into new buildings	
	 increased funds for research / maintain world class status 	
	increased funds for staff salaries	
	increase provision of variety of courses	
	 improve quality of teaching / smaller teacher- student ratios 	
	employment implications	

• more independence from government.

Government

 Reduction of government funding for universities / could reduce budget deficit (1 mark).

Evaluation may include (2+2+2 or 3+3)

- Increased role for market forces: development of the idea that market forces have a greater influence in higher education and there is less role for the government / there is a danger of market failure due to under-consumption.
- **Students**: Students from low income backgrounds get financial support so may not be discouraged from going to university.
- **Students**: Figure 2 reveals significant increase in university applications even when tuition fees more than doubled in 2005-06 / so long term trend of increase in student applications / data reference.
- Universities: Extract 1 refers to 80% cut in government funding of university courses so no extra funds available for some universities / danger that some universities close down / Extract 2 suggests a 36 000 fall in number of university places in 2012 / a fall in range of courses offered / mergers between universities.
- Government: It may take time before government finances improve since time lag before graduates repay loans / some graduates may evade repaying loans / some graduates are out of work so do not repay loans / significant amount of funds raised as many people graduate each year.

(14)

Question Number	Answer	Mark
10(a)	KAA (6 marks)	
	 Explicit reference to Figure 1 on the rise in price of cotton in 2010 e.g. a rise from around 70 US cents to 160 US cents per pound (accept price rises of up to \$240 cents) (1 mark). 	
	 A decrease in supply e.g. flooding in China and Pakistan / Indian Government export ban (1 mark). 	
	 An increase in demand due to speculative buying (1 mark). 	
	NB: award 1 mark for further development of either a supply or demand factor e.g. discussion of supply being highly price inelastic, so speculative demand will have a bigger impact upon price.	
	Diagram (up to 4 marks)	
	Price S2 S P2 D1 O Q2 Qe Quantity	
	 Original demand and supply diagram with equilibrium price (1 mark) 	
	> An increase in the demand curve (1 mark)	
	> A decrease in the supply curve (1 mark)	
	> The new equilibrium price (1 mark)	
	NB: 4 marks can only be awarded if both demand and supply are correctly shifted.	
	NB: Award a maximum of 3 marks if no diagram. NB: Award a maximum of 5 marks if just one curve is shifted.	(6)

Question Number	Answer	Mark
10(b)	 KAA (4 marks) Definition or formula for cross elasticity of demand (the responsiveness in demand for one good due to a change in price of another good or %ΔQD good x ÷ %ΔP good y) (1 mark). 	
	 Application: a rise in price of cotton has caused an increase in demand for synthetic materials / diagram depicting this relationship (1 mark). 	
	 Cotton and synthetic materials are substitutes or in competitive demand (1 mark). 	
	 They have a positive cross elasticity of demand (1 mark). 	(4)
	 Accept diagrammatic explanation (1 mark). 	
	 Accept accurate numerical example (1 mark). 	

Question Number	Answer	Mark
10(c)	KAA (up to 6 marks)	
10(0)	 Definition or formula of price elasticity of supply (the responsiveness of supply due to a change in price or %ΔQS ÷ %ΔP) (1 mark). 	
	 Diagram distinguishing between inelastic and elastic supply or a clear written understanding of the difference between price inelastic and price elastic supply (1 mark). 	
	Factors which affect the price elasticity of supply of cotton include:	
	 Time period / it appears to be price inelastic in supply within 100 days which is the growing period / but more elastic after this period (1+1 marks). 	
	 Spare capacity in the industry or resources in economy / Extract 1 refers to farmers devoting more land to grow cotton which implies spare capacity (1+1 marks). 	
	 Indian Government ban on cotton exports / might contribute to overall inelastic supply for rest of world (1+1 marks). 	
	 Ease of entry and exit to the market for farmers / development e.g. problems of raising finance (1+1 marks). 	
	 Distinction between short run (at least one input fixed) and long run (all inputs variable) / application to type of inputs (1+1 marks). 	
	Evaluation: (2+2 marks or 3+1 marks)	
	 Evaluative use of the data: cotton may be less price inelastic in supply in long run since although price more than doubles, output is set to increase from 101m bales to 117m bales between 2010 and 2011. 	
	Discussion of level of stocks: Extract 1 refers to stocks of cotton at their lowest level for five years supply is inelastic / perishability of cotton stocks.	

 Cotton is dependent on the climate and so no guarantee that supply will be elastic in the long run / problem of flooding might occur next year. (10)

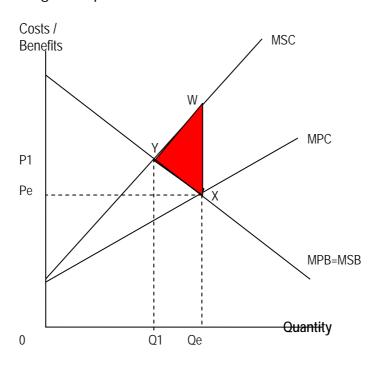
- Discussion of the traders who purchased cotton who may release stocks on to the market as price rises.
- Discussion of GM cotton seed / e.g. it could makes supply more elastic if it reduces growing period or makes the crop more resistant to change in climate / impact of new technology over time.
- Discussion on whether the Indian Government might lift export ban on cotton as prices soar.
- Price fluctuations of cotton may discourage farmers from investing to raise supply in long run even as prices rise.

Question Number	Answer	Mark
10(d)*	KAA (Up to 8 marks)	
• •	 Increase in production costs / retail stores are likely to increase the price of clothing (1+1 marks) 	
	 Diagrammatic analysis depicting supply curve shifting inwards / depicting an increase in price of clothing (diagram or explanation of diagram must refer to clothing market) (1+1 marks). 	
	 Decrease in profits / Investec analysts forecast fall from £560m to £542m / it may lead to a decrease in share price of retail stores - Investec do not recommend buying / fall in dividend payments / fall in producer surplus (1+1+1 marks). 	
	 Fall in number of stores / fall in employment / fall in investment into clothing retail stores (1+1+1 marks) 	
	 Retail firms might try and cut costs e.g. focus more on online sales and catalogue shopping / relocate stores to parts of town where rents are cheaper / staff wage freeze / switch to cheaper synthetic materials / reduce quality (1+1+1 marks). 	
	 Consideration of further diversification e.g. home furnishings / might explain why Next shares rose by 20% over the year (1+1 marks). 	
	Evaluation (2+2+2 or 3+3 marks)	
	Discussion of time; Lord Wolfson refers to cotton price bubble – so it might fall back / Figure 1 refers to the forecast increase in cotton supply to 117m bales for 2011.	
	 Discussion of magnitude of cotton price rise (more than 100%) and impact on clothing prices (up to 10%). 	
	Discussion of the proportion of cotton costs out of total costs for clothing.	
	Discussion of price elasticity of demand: clothing prices have hardly increased for nearly 20 years so there might be some scope to raise price and still keep consumer demand / impact on total revenue.	
	Discount clothing firms such as Primark may gain or lose customers from high-end retailers such as Next and Marks & Spencer.	
		(14)

- Not much scope to source cheaper suppliers from far East as clothes retailers already use them.
- Other factors may come into play e.g. the recession or rising population or increase in marketing may impact on clothing market.

Question Number	Answer	Mark
	 KAA (Up to 8 marks) Definition of private costs: costs internal to an exchange or a transaction / costs which the price mechanism take into account / costs to the consumer or producer directly for a good or service / financial cost or monetary cost to consumers or producer (1+1 marks). Explanation of private costs in growing cotton e.g. fertilizer cost / increased water cost / one other cost such as wages, raw materials, rent and purchase of machinery (1+1 marks). Definition of external costs: costs external to an exchange or transaction / costs which the price mechanism fail to take into account / negative third party effects / difference between social costs and private costs (1+1 marks) Explanation of an external cost in growing cotton e.g. reduction in bio-diversity / health risks associated with GM crops / environmental backlash / pollution from increased use of fertilisers (1+1 marks). NB: general comments on pollution are not sufficient for awarding marks NB: these costs must be clearly identified as either private costs or external costs 	Mark

• Diagram up to 4 marks:



- Original MB and MPC curves (1 mark)
- MSC curve (accept a parallel shift of the MSC curve) (1 mark)
- Identification of market equilibrium and socially efficient quantity (1 mark)
- Identification of triangle of welfare loss (accept welfare gain) (1 mark)

 Consideration of market failure since there is a welfare loss triangle indicating that social costs exceed social benefits for the marginal output QeQ1 - over production and under-pricing (1 mark).

NB: If no suitable diagram then award a maximum of 4 KAA marks.

Evaluation (2+2+2 or 3+3 marks)

 Discussion of magnitude of GM farming: the extract refers to widespread use in India / reference to yields falling (output per acre) / depends upon whether GM farming is widespread in other major cotton producing countries such as US and China. (14)

- Discussion of possible long term implications: there may be a loss of bio-diversity and so difficult to combat diseases such as the bollworm mite.
- Discussion of difficulty in measuring and attaching a monetary value to external costs / issue of imperfect market knowledge and that GM farming is an unknown risk.
- Discussion of possible benefits from GM farming: need to consider all the evidence – crops which might grow despite climate change / increased supply and lower prices / greater consumer surplus / higher living standards for farmers in the developing world.

Unit 1: Assessment Objectives June 2012

Question	Knowledge	Application	Analysis	Evaluation	Total
Section A					
Q1	2	1	1		4
Q2	2	1	1		4
Q3	1	2	1		4
Q4	1	2	1		4
Q5	2	1	1		4
Q6	2	1	1		4
Q7	1	2	1		4
Q8	1	2	1		4
Total	12	12	8		32
Section B					
Q9(a)	2	2			4
Q9 (b)	2	4			6
Q9 (c)	2	2	4	6	14
Q9 (d)	2	2	2	4	10
Q9 (e)	4	2	2	6	14
Total	12	12	8	16	48
Q10 (a)	2	4			6
Q10 (b)	2	2			4
Q10 (c)	2	2	2	4	10
Q10 (d)	4	2	2	6	14
Q10 (e)	2	2	4	6	14
Total	12	12	8	16	48
Grand	24	24	16	16	80
Total					
A+B					

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