V1.0

General Certificate of Education (A-level)
June 2013

Economics ECON1

(Specification 2140)

Unit 1: Markets and Market Failure

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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AQA Advanced Subsidiary Economics

June 2013 **ECON1/1**

The following list indicates the correct answers used in marking the candidates' responses.

KEY LIST

1.	**D**	**9.**	**A**	**17.**	**B**
2.	**A**	**10.**	**B**	**18.**	**A**
3.	**D**	**11.**	**D**	**19.**	**B**
4.	**C**	**12.**	**A**	**20.**	**D**
5.	**D**	**13.**	**B**	**21.**	**B**
6.	**B**	**14.**	**D**	**22.**	**A**
7.	**C**	**15.**	**A**	**23.**	**B**
8.	**A**	**16.**	**C**	**24.**	**B**
				25.	**C**

Advanced Subsidiary Economics

June 2013 **ECON1/2**

Mark Scheme

Section B: Data Response

General Instructions

Marks awarded to candidates should be in accordance with the following mark scheme and examiners should be prepared to use the full range of marks available. The mark scheme for most questions is flexible, permitting the candidate to score full marks in a variety of ways. Where the candidate's response to a question is such that the mark scheme permits full marks to be awarded, full marks **MUST** be given. A perfect answer is not necessarily required for full marks. But conversely, if the candidate's answer does not deserve credit, then no marks should be given.

Occasionally, a candidate may respond to a question in a reasonable way, but the answer may not have been anticipated when the mark scheme was devised. In this situation, **OR WHENEVER YOU HAVE ANY DOUBT ABOUT THE INTERPRETATION OF THE MARK SCHEME**, you must in the first instance telephone your team leader to discuss how to proceed.

(i) **An issue based approach.** The mark scheme for questions **01**, **02**, **03**, **05**, **06** and **07** of the data response questions adopts this approach. The mark scheme lists the marks that can be awarded for particular issues (and associated development) that the candidate might include in the answer.

A levels approach. This approach is used for marking questions **04** and **08** of the data response questions. The Levels of Response Mark Scheme on the next page identifies five levels representing differences in the quality of work. A range of marks is allocated at each level. First decide the level into which an answer falls. The level chosen should be the one which **best fits** the answer provided by the candidate. It is **not** intended that the answer should satisfy every statement in the level description. Then think in terms of awarding the mid-point mark which has been identified for that level (eg 13 marks for Level 3). Move up and down from this notional mark by considering the extent to which the answer meets the level description overall. Strength in one skill can outweigh weakness in another. When using the Levels Mark Scheme the marker **must** identify where a particular skill is being demonstrated. The **key** to be used to identify the skill is given after the levels descriptions. The question-specific mark scheme summarises the information which could be used to answer the question, but without attaching marks to particular issues.

LEVELS OF RESPONSE MARK SCHEME: QUESTIONS 04 AND 08 ONLY

AS LEVELS OF RESPONSE	AO1 KNOWLEDGE and UNDERSTANDING of theories, concepts and terminology	AO2 APPLICATION of theories, concepts and terminology	AO3 ANALYSIS of economic problems and issues	AO4 EVALUATION of economic arguments and evidence, making informed judgements
Level 5 22-25 marks (mid-point 24) **Good analysis and good evaluation**	Good throughout the answer with few errors and weaknesses	Good application to issues Good use of data to support answer	Relevant and precise with a clear and logical chain of reasoning	Good with a clear final judgement
Level 4 17-21 marks (mid-point 19) **Good analysis but limited evaluation** **OR** **Reasonable analysis and reasonable evaluation**	Good throughout the answer with few errors and weaknesses Good throughout much of the answer with few errors and weaknesses	Good application to issues Good use of data to support answer Some good application to issues. Some good use of data to support answer	Relevant and precise with a clear and logical chain of reasoning Largely relevant and well organised with reasonable logic and coherence	Limited but showing some appreciation of alternative points of view Reasonable, showing an appreciation of alternative points of view
Level 3 10-16 marks (mid-point 13) **Reasonable answer, including some correct analysis but very limited evaluation**	Satisfactory but some weaknesses shown	Reasonable application to issues Reasonable use of data to support answer	Reasonably clear but may not be fully developed and is perhaps confused in places with a few errors present	Superficial, perhaps with some attempt to consider both sides of the issue(s)
Level 2 4-9 marks (mid-point 7) **Weak with some understanding**	Limited and some errors are made	Partial application to issues with some errors Limited use of data to support answer	Partial but confused at times, lacking focus and development Limited logic and coherence	A very basic and simplistic attempt is made which is unsupported by analysis
Level 1 0-3 marks (mid-point 2) **Very weak**	Weak with a number of errors	Little, if any, application to issues No use of data to support answer	Poor and lacking clarity and focus	No relevant evaluation

THE KEY TO BE USED WHEN USING THE 'LEVELS' MARKING SCHEME

D Where a particular economic term is correctly **DEFINED** in order to help the candidate to answer the question properly.

I where a relevant **ISSUE** is raised by the candidate.

K Where the candidate demonstrates **KNOWLEDGE** of recent developments or features of the economy which help enhance the candidate's response to the question. This should also be used where the candidate quotes relevant examples.

Ap Where the candidate demonstrates the ability to **APPLY** knowledge and **CRITICAL UNDERSTANDING** to problems and issues.

An Where the candidate demonstrates the ability to **ANALYSE** the problem using appropriate economic ideas.

E Where the candidate **EVALUATES** and makes judgements about the significance of various issues and arguments.

QUALITY OF WRITTEN COMMUNICATION

Quality of Written Communication (QWC) will be assessed in Questions 04 and 08 only.

Candidates will be assessed according to their ability to:

- ensure that text is legible, and that spelling, grammar and punctuation are accurate, so that meaning is clear
- select and use a form and style of writing appropriate to purpose and complex subject matter
- organise information clearly and coherently, using specialist vocabulary when appropriate.

No specific marks are awarded for QWC.

However, examiners should take into account QWC when determining the mark to be awarded for an answer. This means an answer could be taken either up (for exceptional QWC) or down (for very poor QWC) by 1 mark (and no more).

EITHER

Context 1 **Total for this Context: 50 marks**

01	Define the term 'subsidies' (**Extract B,** line 4).	*(5 marks)*

For an acceptable definition, eg • payments by the government/authority which reduce the costs of production of goods or services • payments by the government which increase the supply of goods or services/shift the supply curve to the right • money paid by the government to firms in order to reduce their costs and /or increase competitiveness • money paid by the government to reduce the market price • money paid by the government to increase consumption.	**5 marks**
Full marks should be awarded to a candidate who demonstrates a clear understanding of the term 'subsidies' even if the definition isn't exactly the same as the acceptable examples quoted above.	

If the definition is inaccurate or incomplete, award a maximum of 4 marks which may be broken down, for example as follows:

Grants/payments to firms by the government.	**2 marks**
Diagram to illustrate a subsidy: 1 mark for labels, 1 for information shown.	**2 marks**
Money received by firms	**1 mark**
A form of government spending/intervention	**1 mark**
Payments of money	**1 mark**
The opposite of taxes	**1 mark**
An example of a good/service which may be subsidised (other than education).	**1 mark**

NB: If the candidate refers to for example, 'reduces costs of production'/'shifts supply curve to the right' with no reference to 'payment' and 'government', this should be awarded 2 marks for each statement.

Maximum of 4 marks if definition is incomplete or inaccurate

MAXIMUM FOR PART 01: 5 MARKS

02 Using **Extract A,** identify **two** significant points of comparison between the number of students on full-time courses and those on part-time courses over the period shown. *(8 marks)*

Award up to 4 marks each for <u>each</u> significant point made:

Identifies a significant point of comparison Makes accurate use of the data to support comparison identified Unit of measurement given accurately	**4 marks**
Identifies a significant point of comparison Makes use of the data to support the comparison identified However, only one piece of data is given when two are needed **and/or** no unit of measurement is given **and/or** the unit of measurement is used/applied inaccurately **and/or** the dates are not quoted or are inaccurate	**3 marks**
Identifies a significant point of comparison No correct use of the data to support the comparison identified	**2 marks**
Identifies a significant feature of the data but no comparison is made Makes use of the data to support the feature identified Unit of measurement given accurately	**1 mark**

If a candidate identifies more than 2 significant points of comparison, reward the best two.

NB: Candidates need only refer to EITHER postgraduate OR undergraduate students to achieve full marks

The valid points include

- full-time undergraduate students increased from 473 000 in 1980/81 to 1328 000 in 2008/9, and part-time undergraduate students increased from 247 000 in 1980/81 to 686 000 in 2008/9
- full-time postgraduate students increased from 62 000 in 1980/81 to 269000 in 2008/9, and part-time postgraduate students increased from 45 000 in 1980/81 to 274000 in 2008/9
- over the years shown the highest absolute increases for each type of student were seen in undergraduate courses, with full-time undergraduate students increasing by 855000, and part-time undergraduate students increasing by 439 000
- over the years shown the highest % increases for each type of student were seen in postgraduate courses, with full-time postgraduate students increasing by 334%, and part-time postgraduate students increasing by 509%
- over the years shown the number of students on full-time courses was greater than the number on part-time courses for undergraduate courses, for example in 2008/9 there were 1 328 000 students on full-time courses and 686 000 on part-time courses
- over the years shown the number of students on full-time postgraduate courses was greater than the number on part-time courses in 1980/81 with 62 000 full-time students, and 45 000 part-time, whereas in 2008/09 there were more part-time students than full-time with 274 000 and 269 000 respectively
- over the years shown the highest number of full-time and part-time students was seen in 2008/9 on undergraduate courses with 1 328 000 students studying full-time and 686 000 studying part-time

- over the years shown the lowest number of both full-time and part-time students was seen in 1980/81 on postgraduate courses with 62 000 students studying full-time and 45 000 students studying part-time.

For ease of reference:

- the absolute increase over the period for full-time undergraduate students was 855 000
- the absolute increase over the period for part-time undergraduate students was 439 000
- the absolute increase over the period for full-time postgraduate students was 207 000
- the absolute increase over the period for part-time postgraduate students was 229 000.

or

- the % increase over the period for full-time undergraduate students was 181%
- the % increase over the period for part-time undergraduate students was 178%
- the % increase over the period for full-time postgraduate students was 334%
- the % increase over the period for part-time postgraduate students was 509%.

or

- the absolute increase over the period for full-time students on both courses was 535 000 to 1597 000
- the absolute increase over the period for part-time students on both courses was 292 000 to 962 000

or

- the % increase over the period for full-time students on both courses was 199%
- the % increase over the period for part-time students on both courses was 229%

- Allow a margin of error of 10 000 or +/- 1 per cent when judging the changes.

MAXIMUM FOR PART 02: 8 MARKS

03 With the help of an appropriate diagram, explain the view of education as a '…service which markets tend to under–provide' (**Extract C**, line 18). *(12 marks)*

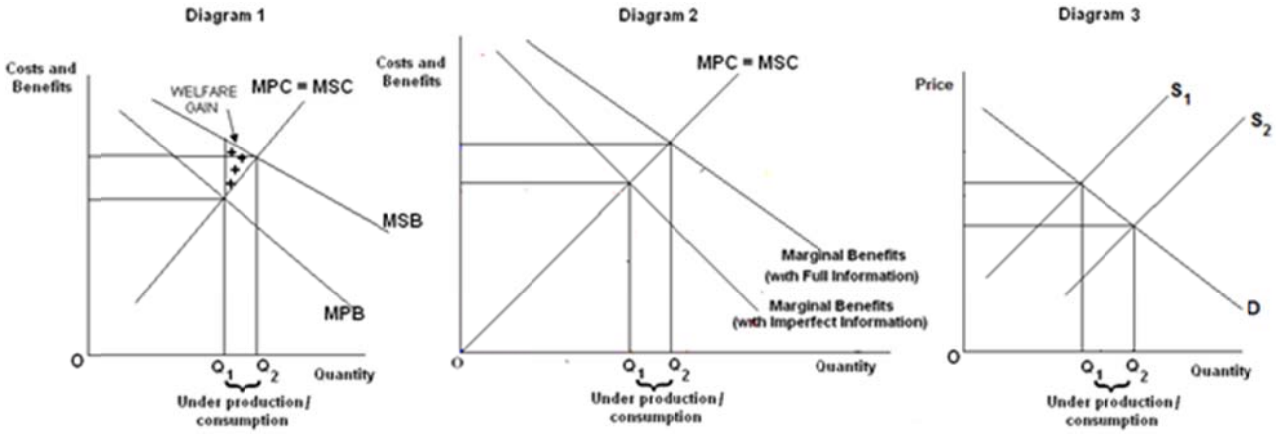
When awarding marks for the diagram, it is important to reward candidates who produce an economically valid response even if it is not exactly the same as diagrams 1, 2 or 3 below.

All three diagrams analyse education provision in terms of education being a merit good.

Diagram 1 assumes that consumption of education generates positive consumption externalities which benefit society as a whole. Because a free market fails to take account of the positive externalities, underconsumption and thence also underproduction occurs.

Diagram 2 relates to the alternative way of defining a merit good in terms of imperfect information, which alternatively could be drawn as a demand and supply diagram when, following receipt of the full information, consumption and thence provision is higher.

Diagram 3 is a conventional supply and demand diagram showing the quantity of education provided at an unsubsidised market price (when the supply curve is S_1), and at a subsidised price (when the supply curve is S_2).



The anticipated response for the diagram

Breakdown of the marks for Diagrams 1 and 2

For labelling both axes, the private cost and benefit curves, and the horizontal coordinate, labelled for example Q_1, to show the level of provision of education in a market before externalities or the lack of perfect information are taken into account.	**1 mark**
For depicting social cost relative to private cost accurately on the diagram	**1 mark**
For depicting social benefit relative to private benefit (or marginal benefits with and without full information) accurately on the diagram.	**1 mark**
Horizontal coordinate accurately drawn after taking account of the externalities or lack of perfect information.	**1 mark**
Any other relevant feature of the diagram, eg marginal external benefit shown or welfare gain/loss shown; underproduction or underconsumption, the size of an information gap correctly labelled.	**1 mark per feature up to a maximum of 2 marks**

Breakdown of the marks for Diagram 3

For labelling both axes, the demand curve and the supply curve S_1, and the horizontal coordinate, labelled for example Q_1, to show the level of provision of education in a market before the effect of a subsidy (for example) is taken into account.	**1 mark**
For showing a second supply curve, in this graph S_2, having taken into account the effect of a subsidy.	**1 mark**
For showing a second horizontal coordinate, Q_2.	**1 mark**
For labelling the distance between Q_1 and Q_2 underproduction or underconsumption, or labelling Q_2 as the socially optimal level of consumption.	**1 mark**
Any other relevant feature of the diagram, eg the free-market price of education; the subsidised price of education; quantity of education demanded if education is provided free.	**1 mark per feature up to a maximum of 2 marks**

Note:

(i) To earn the first mark in the grids, all the listed tasks must have been completed correctly.

(ii) For the task of labelling axes, costs and benefits, c/b and/or price or a monetary symbol such as the £ sign on the vertical axis and quantity, output, or units of education are all valid, as are P and Q.

Up to a MAXIMUM of 4 marks for diagram or diagrams

The anticipated written response

The quote or prompt at the beginning of the question, drawn from the last line of **Extract C** states that education is a service which markets tend to underprovide. However, neither **Extract B** nor **Extract C** offers any further prompts and no mention is made of education as a merit good. However, AS students are well versed in the fact that education can be classed as a merit good and they are expected to have developed their explanations accordingly. In the context of externalities, to be completely accurate the answers should focus on *consumption* externalities, but allow answers that simply refer to positive externalities without mentioning the word *consumption*.

Define a relevant concept such as a merit good, marginal private, external and social costs and benefits, positive externality, an information gap, demand, supply.	**1 mark per definition Maximum of 2 marks**
Example of a private benefit	**1 mark**
Example of an external benefit/positive externality	**1 mark**
For the explanation, award 2 marks for each logical link in the chain of reasoning, for example	
Education, a merit good (**2 marks**) may be underconsumed (or underprovided) because consumers only consider the private benefits (**2 marks**) so the positive (consumption) externalities are not taken into account (**2 marks**) so the MPB is less than the MSB (**2 marks**) the level of consumption ends up below the socially optimum level (**2 marks**) and there is a deadweight loss of social welfare (**2 marks**).	**Up to 10 marks**
Consumers of education only consider the short term benefits (**2 marks**) because they possess imperfect information (**2 marks**) they do not fully consider the long-term benefits **(2 marks)** of eg higher eventual income (**1 mark eg**) so consumption occurs at the privately optimum level **(2 marks)** rather than the socially optimum level (**2 marks**) resulting in a misallocation of resources (**2 marks**) and which could be avoided by subsidising consumption (or production) of education **(2 marks)**.	**Up to 10 marks**
Alternatively/in addition to the above, other links include: • in the education market there is evidence of market failure • the market produces where MPB is equal to MPC • the market does not produce where MSB is equal to MSC • consumers possess imperfect information of the long term private benefits • less is consumed than if perfect information existed • the 'perceived' benefit is less than the 'actual' benefit • social benefits outweigh the private benefits • the MPC of production outweighs the MSC of production • a positive external benefit of production exists.	**2 marks for each alternative /additional link in the chain of reasoning** **Up to 10 marks**

Note: Do not award marks for simply describing what the diagram shows.

Up to a MAXIMUM of 10 marks for the written explanation

MAXIMUM FOR PART 03: 12 MARKS

04 Using the data and your own economic knowledge, assess the case for financing universities mainly through charging fees to their students. *(25 marks)*

Level 5	**Good analysis and good evaluation**	**22 to 25 marks** *Mid-Point 24 marks*
Level 4	**Good analysis but limited evaluation** **OR** **Reasonable analysis and reasonable evaluation**	**17 to 21 marks** *Mid-Point 19 marks*
Level 3	**Reasonable including some correct analysis but very limited evaluation**	**10 to 16 marks** *Mid-Point 13 marks*
Level 2	**Weak with some understanding**	**4 to 9 marks** *Mid-Point 7 marks*
Level 1	**Very weak**	**0 to 3 marks** *Mid-Point 2 marks*

For this question, an answer should be limited to a maximum of 13 marks if there is no evidence of evaluation.

A maximum of 21 marks may be awarded if there is no explicit reference to the data.

The case for and against charging fees to students can only be properly assessed if the alternatives are also considered. **Extracts B & C** provide a number of prompts and it is expected that candidates will make use of one or more of these when developing their answers.

Issues and areas for discussion include:

Introduction	• explaining the charging of fees • stating the alternatives to charging fees • identifying education as a merit good.
Developing the response to the question: **(Application)**	• drawing on knowledge of fee charging in the UK in recent years • drawing on knowledge of recent proposals to change the nature of fee charging in future years • Extract B, (line 1): Universities need more income • Extract B, (lines 3-4): finance largely through government spending and taxation • Extract B, (lines 4-5): subsidies to universities and grants to students • Extract B, (lines 8-9): selling research to commercial companies • Extract B, (lines 9-11): evidence from US universities; • Extract B, (lines 13-14): philanthropic gifts • Extract B, (lines 14-16): evidence from US universities • Extract C, (lines 1-2): history of charging student fees in the UK • Extract C, (lines 2-12): case for and against charging fees • Extract C, (lines 15-18) issues extending beyond fee-paying.

Developing the response to the question: (Analysis)	• developing a chain of reasoning to explain how education possesses the properties of a merit good • developing the opposite case to explain how a free market can provide education • analysing subsidies • using a diagram to illustrate the effect of a subsidy • developing a chain of reasoning as to why market provision may result in under-provision • analysis of the case for and against universities being financed through charging student fees • analysis of the case for and against universities being financed through business contracts • analysis of the case for and against universities being financed through philanthropy or gifts • analysis of the case for and against universities being financed through government spending and taxation • use of the evidence in the Extracts and in the candidate's economic knowledge to back up the analysis.
Evaluation	• discussing the analytical consequences of treating education as a merit good • evaluating the strength of the merit good argument • discussing possible unintended consequences of subsidised or free provision • discussing why business contracts and philanthropy may not be able to finance universities • evaluating the case for charging students fees • evaluating the case against charging students fees • opportunity cost arguments • discussing the correct size, if any, of a subsidy • discussing whether or not different methods of finance should be used in tandem • discussing the implications of 'mainly' • evaluating the evidence in the data • evaluating market failure and government failure considerations • overall evaluation of the case for versus the case against.

Examiners should note that credit can be given for basic evaluation if a candidate simply states but does not develop arguments in favour or against different methods of financing higher education. Basic evaluation (and good analysis) would allow the answer to achieve low Level 4. Stronger evaluation is provided by candidates who are able to support arguments both for and against different types of finance, and by clearly stating the assumptions underlying the arguments being used. Reward the relevant use of diagrams to support arguments, eg merit good and subsidy diagrams.

USE THE DETAILED LEVELS MARK SCHEME ON PAGE 5 FOR FURTHER CLARIFICATION

MAXIMUM FOR PART 04: 25 MARKS

OR

Context 2 **Total for this Context: 50 marks**

05	Define the term 'productive efficiency' (**Extract E**, line 12).	*(5 marks)*

For an acceptable definition, eg • the lowest-average cost level of output/production • production takes place at the lowest point on a 'u'- shaped average cost curve • maximising output from available inputs • minimising inputs to produce given output • when it is impossible to produce more of one good without reducing production of another good • production takes place where AC=MC (not in AS specification).	**5 marks**
Full marks should be awarded to a candidate who demonstrates a clear understanding of the term '**productive efficiency'** even if the definition isn't exactly the same as the acceptable examples quoted above.	

If the definition is inaccurate or incomplete, award a maximum of 4 marks which may be broken down, for example, as follows:

Stating that it occurs at lowest average cost – no reference to output/production.	**4 marks**
Stating that productive efficiency occurs at all points on a firm/economy's production possibility frontier.	**2 marks**
When all resources are fully utilised	**2 marks**
Illustrating productive efficiency on a cost curve or PPF diagram: 1 mark for labels, 1 for information shown.	**2 marks per diagram (max 2 marks)**
Stating that production takes place at lowest cost – no reference to average unit.	**2 marks**
Defining efficiency in a 'general' way, eg reference to economies of scale, but without reference to production/minimising average costs.	**1 mark**
Defining production/productive	**1 mark**
Stating productive efficiency is an example of static efficiency.	**1 mark**

Do not reward an answer which confuses productive efficiency with allocative efficiency (the latter is not in the specification, but some candidates have learnt the concept).

Maximum of 4 marks if definition is incomplete or inaccurate

MAXIMUM FOR PART 05: 5 MARKS

06 Using **Extract D**, identify **two** significant points of comparison between the market shares of smartphone brands over the period shown. *(8 marks)*

Award up to 4 marks each for <u>each</u> significant point made

Identifies a valid significant point of comparison. Makes accurate use of the data to support comparison identified. Unit of measurement given accurately.	**4 marks**
Identifies a significant point of comparison. Makes use of the data to support the comparison identified. However, no unit of measurement is given **and/or** the unit of measurement is used/applied inaccurately **and/or** the dates are not quoted or are inaccurate.	**3 marks**
Identifies a significant point of comparison. No use of the data to support the comparison identified.	**2 marks**
Identifies a significant feature of the data but no comparison is made. Makes use of the data to support the feature identified. Unit of measurement given accurately.	**1 mark**

If a candidate identifies more than 2 significant points of comparison, reward the best two. A candidate only needs to compare 2 of the lines in the graph.

The valid points include:

- comparing the first and last points of the iphone and Blackberry data series, the market share of the iphone grew (from about 24% to about 27%), whereas the share of Blackberry fell (from about 42% to about 25%)
- comparing the first and last points of the iphone and Android brands data series, the market share of the iphone grew (from about 24% to about 27%), whereas the share of Android grew (from about 13% to about 38%)
- comparing the first and last points of the Android brands and Blackberry data series, the market share of the Android brands grew (from about 13% to about 38%), whereas the share of Blackberry fell (from about 42% to about 25%)
- the iphone's market share was above Blackberry's market share in the latter part of the data period from April 2011 until May 2011, rising from about 26% to about 27%
- Blackberry's market share fell continuously throughout the data period, whereas the iphone's market share fell only in two short periods (June/July 2010 from about 24% to about 23.5% and December 2010/January 2011 from about 25% to about 24.75%)
- the market shares of Blackberry and Android brands were equal (at approx. 31%) in December 2010/January 2011
- the market shares of Android brands and iphone were equal (at approx. 25%) in October/November 2010
- the market shares of Blackberry and iphone were equal (at approx. 26%) in March/April 2011
- the largest market share (approx. 42%) of Blackberry was in May 2010, compared with that of the iphone (approx. 27%) in May 2011, or Android brand (approx. 38%) in May 2011

- the smallest market share (approx. 25%) of Blackberry was in May 2011, compared with that of the iphone (approx. 24%) in July 2010, or Android brand (approx. 13%) in May 2010

  Allow a margin of error of +/- 1 per cent when judging market shares.

MAXIMUM FOR PART 06: 8 MARKS

07 With the help of the information in **Extract E,** explain **two** possible reasons for the change in the sales of smartphones in 2011. *(12 marks)*

Extract E mentions two sets of factors that affected smartphone sales in 2011. These were a demand-side factor (fashion) and supply-side factors (economies of scale, productive efficiency and market entry). In the logical chains of reasoning below, only award once '*causes demand to increase'*, '*causes supply to increase'*, and '*and causes sales to increase'.*

Define demand, supply, equilibrium quantity, excess supply, or any other relevant term. Do not reward a definition of productive efficiency.	**1 mark per definition** **Maximum of 2 marks**
For each of the following explanations, award 2 marks for each logical link in the chain of reasoning.	
A smartphone is a fashion item **(2 marks)** and users replace their phones with the latest model in response to an advertising campaign **(2 marks)** which increases the demand for smartphones **(2 marks)** and causes sales to increase **(2 marks)**.	**Up to 8 marks**
As smartphone technology improves **(2 marks)** consumers are likely to embrace this as it enables them to enjoy more efficient means of communication **(2 marks)** this increases the demand for smartphones **(2 marks)** and causes sales to increase **(2 marks)**.	**Up to 8 marks**
Economies of scale **(2 marks)** reduce (average) costs **(2 marks)** and increase supply **(2 marks)** and causes sales to increase **(2 marks)**.	**Up to 8 marks**
Gains in productive efficiency **(2 marks)** reduce (average) costs **(2 marks)** and increase supply **(2 marks)** and cause sales to increase **(2 marks)**.	**Up to 8 marks**
The entry of new firms **(2 marks)** increases supply **(2 marks),** increases competition in the market **(2 marks)** which drives down prices **(2 marks)** and cause sales to increase **(2 marks)**.	**Up to 8 marks**
For an explanation of the adjustment process: for example an increase in demand causes excess demand at the original equilibrium **(2 marks)** and an extension along the supply curve **(2 marks)**.	**Up to 4 marks**
For diagrams which are consistent with the written explanation, eg a diagram showing the effect of a shift of demand; a diagram showing the effect of a shift of supply. Award marks as follows: • for labelling both axes, original supply and demand curves, price and quantity co-ordinates drawn in and labelled for example P_1 Q_1 **1 mark** • a relevant shift of the demand and/or the supply curve: **1 mark for each shift** • horizontal and vertical co-ordinates drawn in at the new equilibrium and labelled for example P_2 Q_2: **1 mark** • any other relevant feature of the diagram (eg excess demand; excess supply): **1 mark max**.	**Up to 4 marks**

Note: (i) Maximum of 8 marks if only one relevant reason is explained

(ii) Full marks can be earned without the use of a diagram

(iii) Award no marks for the diagram if there is no reference to it in the text

MAXIMUM FOR PART 07: 12 MARKS

08 Using the information in the data and your own economic knowledge, evaluate the economic case **for** and **against** governments attempting to influence how mobile phones are manufactured and used. *(25 marks)*

Level 5	**Good analysis <u>and</u> good evaluation**	**22 to 25 marks** *Mid-Point 24 marks*
Level 4	**Good analysis <u>but</u> limited evaluation** **OR** **Reasonable analysis <u>and</u> reasonable evaluation**	**17 to 21 marks** *Mid-Point 19 marks*
Level 3	**Reasonable including some correct analysis but very limited evaluation**	**10 to 16 marks** *Mid-Point 13 marks*
Level 2	**Weak with some understanding**	**4 to 9 marks** *Mid-Point 7 marks*
Level 1	**Very weak**	**0 to 3 marks** *Mid-Point 2 marks*

For this question, an answer should be limited to a maximum of 13 marks if there is no evidence of evaluation.

Answers discussing only policies cannot rise above 16 marks

A maximum of 21 marks may be awarded if there is no explicit reference to the data.

Answers discussing <u>only</u> phone manufacture <u>or</u> phone use cannot rise above 21 marks.

Candidates are likely to develop their answers to apply what they have been taught, namely *governments regulating or intervening in how mobile phones are manufactured and used*. While this is a valid response to the question, the wording also tries to prompt discussion of how governments may try to 'nudge' manufacturers and phone users into certain types of behaviour. For example, smartphone manufacturers such as Apple may voluntarily change the way they hire labour and phone users may take action to minimise the chance of suffering health problems.

Issues and areas for discussion include:

Introduction	• stating that a mobile phone is manufactured by assembling a large number of components into a finished phone • stating that a mobile phone is usually used next to the ear but can be used in other ways • stating that mobile phones emit radiation when used and that phone masts also emit radiation • stating different ways in which governments can attempt to influence how mobile phones are manufactured and used.
Developing the response to the question: **(Application)**	• drawing on knowledge of discussion in newspaper and TV programmes about manufacturing conditions and the alleged health hazards of using mobile phones • extract E Line 16: low wages paid to Asian workers • extract E Lines 18-19: manufacturers exploiting workers • extract F Lines 1-2: there "could be some risk" of mobile phone use causing cancer • extract F Lines 4-6: European Commission Scientific Committee concluded that "exposure is unlikely to lead to an increase in cancer in humans"

	• Extract F (line 7): radiation emitted by the broadcasting masts • Extract F (lines 9-10): workers who spend long periods of time at a short distance from active telecommunications equipment may also be at risk • Extract F (lines 12-13): French telecom company ordered to take down a mobile phone mast due to uncertainty about its effect on health; • Extract F (lines 13-15): the general presumption taken by courts of law is that mobile phone users themselves, and not governments, should take responsibility for avoiding health risks.
Developing the response to the question: (Analysis)	• developing a chain of reasoning to explain why production of mobile phones in competitive markets without any attempt by governments to influence production may lead to low costs, greater consumer choice and higher employment • developing a chain of reasoning to explain why production of mobile phones in competitive markets without any attempt by governments to influence production may lead to market failure, eg in the form of income inequalities and the emission of negative externalities of consumption and production • analysing how governments may attempt to influence how mobile phones are manufactured and used • analysing the question with cost and externality diagrams • analysing the question in terms of the signalling, incentive and rationing/resource allocation functions of the price mechanism.
Evaluation	• questioning the assumptions made when developing the chains of reasoning outlined above • distinguishing between the different cases relating to phone manufacture and phone use • contrasting the advantages and disadvantages of government action and leaving things to the free market • evaluating the evidence in the data • evaluating market failure and government failure considerations • overall evaluation of the cases for versus the cases against, both for manufacture and use.

Examiners should note that credit can be given for basic evaluation if a candidate simply states but does not develop arguments. Basic evaluation (and good analysis) would allow the answer to achieve low Level 4. Stronger evaluation is provided by candidates who are able to support arguments both for and against. Reward the relevant use of diagrams to support arguments.

USE THE DETAILED LEVELS MARK SCHEME ON PAGE 5 FOR FURTHER CLARIFICATION

MAXIMUM FOR PART 08: 25 MARKS