Mark Scheme (Results)

Summer 2018

Pearson Edexcel GCE AS Level
In Economics (8EC0)
Paper 01 Introduction to Markets and Market Failure

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

Summer 2018
Publications Code 8EC0_01_1806_MS
All the material in this publication is copyright
© Pearson Education Ltd 2018

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.

Question Number	Answer	Mark
1(a)	**The only correct answer is C** ***A*** *is not correct because Statement 1 is Positive, using testable data* ***B*** *is not correct because Statement 1 is Positive, using testable data* ***D*** *is not correct because 'ought' in Statement 2 is Normative*	**(1)**

Question Number	Answer	Mark
1(b)	**Application 2** **Application** 11 000 000 / 155 (1) = 70 968 or 11 000 000 / 156 (1) = 70 512 Award 2 marks for an answer within the range 70 500 and 71 000.	**(2)**

Question Number	Answer	Mark
1(c)	**Knowledge 1** **Knowledge/Understanding** 1 mark for definition, e.g. • centrally planned • government run • no or limited private sector • government allocates most/all resources.	**(1)**

Question Number	Answer	Mark
2 (a)	**Application 2** **Application** PED = %△Qd/%△P price rise = 5/60 x 100 = 8.3% (1) **or** -5.4%/+8.3% (1) PED = (-)0.65 Award 2 marks for (-)0.65 **NB if answer given is between (-)0.7 and (-)0.6 award 2 marks.**	**(2)**

Question Number	Answer	Mark
2(b)	**The only correct answer is A** ***B*** *is not correct because 'population' is a non price determinant of demand not PED determinant* ***C*** *is not correct because 'cost' is a non price determinant of supply not PED determinant* ***D*** *is not correct because 'expected rise in the price' is a non price determinant of demand not PED determinant*	**(1)**

Question Number	Answer	Mark
2(c)	**Knowledge 1** **Knowledge/understanding** 1 mark for definition: 'all other things being equal' (1) OR All other factors remain unchanged (1)	**(1)**

Question Number	Answer	Mark
3(a)	**The only correct answer is A** ***B*** *is not correct because a shortage will be eliminated by a rise in rice rather than a fall in rice* ***C*** *is not correct because setting 'targets' is not a clear application of the rationing function using the price mechanism* ***D*** *is not correct because the lower NHS price will act as a discincentive*	**(1)**

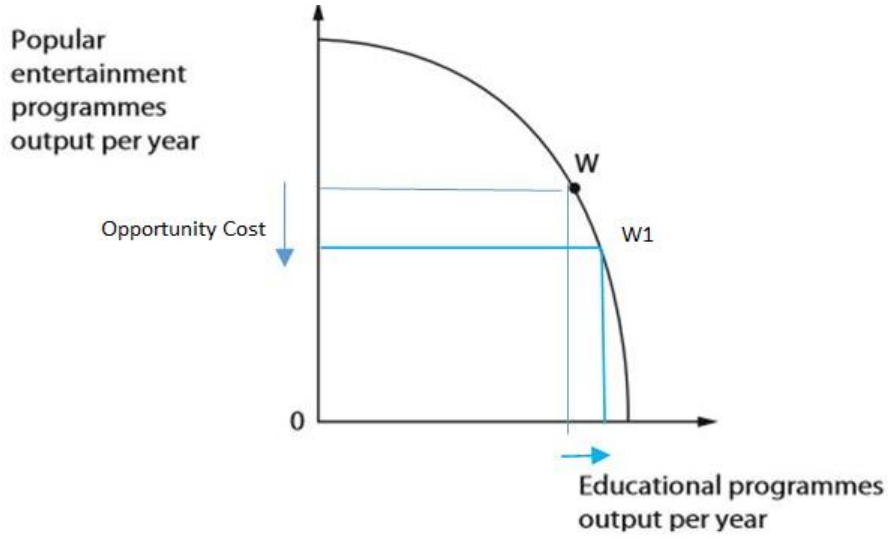
Question Number	Answer	Mark
3(b)	**Knowledge 2** **Knowledge/Understanding** 1 mark for reason and 1 mark for linked development. Possible answers include: • Risk/Imperfect information (1) which may lead to a misallocation of resources (1) • Inequality (1) provide for those priced out of unaffordable private care (1) • Positive externalities (1) spillover benefits to third parties i.e. employers/families (1) Diagram may illustrate this (1) • Growth/economic freedom/welfare safety net (1) ensure the ill can recover and return to workforce (1).	**(2)**

Question Number	Answer	Mark
3(c)	**Knowledge 1** **Knowledge/understanding** 1 mark for definition, e.g. • Where one party in a transaction has more or superior information compared to another (1) • Providers know more than consumers or vice versa (1)	**(1)**

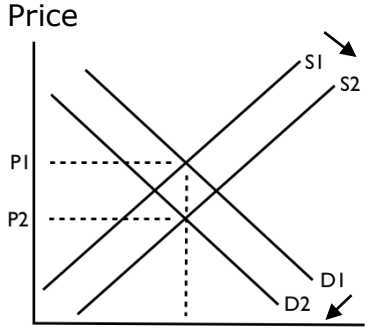
Question Number	Answer	Mark
4(a)	**The only correct answer is B** ***A*** *is not correct because as a quantitative skill this describes the range rather than median so acts as a distractor* ***C*** *is not correct because as a quantitative skill this describes the mode rather than median so acts as a distractor* ***D*** *is not correct because as a quantitative skill this describes the mean rather than median so acts as a distractor*	**(1)**

Question Number	Answer	Mark
4(b)	**Knowledge 1, Application 1, Analysis 1** **Knowledge/understanding** 1 mark for correct definition of inferior good e.g. as incomes rise demand falls or YED formula = %△Qd/%△Y Or as incomes falls more demand for inferior goods **Application** 1 mark for, e.g. 1 mark for calculating percentage change in income = 1.5/24.2 =+6.2% 1 mark for calculating YED = -3%/+6.2% = -0.48 (accept range -0.48 to -0.5) **Analysis** 1 mark for linked development e.g. bus travel is an inferior good as YED is negative (1). Or explanation of the inverse relationship (1).	**(3)**

Question Number	Answer	Mark
5(a)	**Knowledge 1** **Knowledge/understanding** 1 mark for definition, e.g. • Measure of the welfare (utility) that people gain from consuming goods and services • Difference between the total amount that consumers are willing and able to pay and the total amount that they actually pay. • Diagram showing area under the demand curve and above the market equilibrium price.	**(1)**

Question Number	Answer	Mark
5(b)	**Application 2** **Application** 2 marks for, e.g. An additional point to the right of W indicating movement of resources towards educational programmes (1) and the resulting opportunity cost, showing a fall in output of popular entertainment programmes (1). The following diagram earns 2 marks:  	**(2)**

Question Number	Answer	Mark
5(c)	**The only correct answer is C** ***A*** *is not correct because this is providing an example of government finances rather than being non-excludable or non-rivalrous as a definition of a public good.* ***B*** *is not correct because this is confusing popularity with public goods, rather than being non-excludable or non-rivalrous as a definition of a public good.* ***D*** *is not correct because this is confusing benefits to third parties as members of the public rather than being non-excludable or non-rivalrous as a definition of a public good.*	**(1)**

Question Number	Answer	Mark
6(a)	**Knowledge 1, Application 2, Analysis 2** **Knowledge** 1 mark for an increase in supply or a decrease in demand. This may be illustrated on a diagram **Application** 2 marks for using source data explaining change in supply and demand, e.g. • Estimated surplus (1) of approximately 7 million kg of uranium (1) • Kazakhstan's production has increased significantly/stockpiles (1) • Confidence in nuclear industry declined/Japan closed some of its nuclear plants (1) **Analysis** Accurate diagram – showing price fall (1) correct shift in demand **and** supply (1) e.g. Price  0 Q1 Quantity of uranium	**(5)**

Question Number	Indicative content	Mark
6(b)	**Knowledge 2, Application 2, Analysis 2** • Shows or demonstrates understanding of price elasticity of supply. • Reasons why uranium is price inelastic. • Diagram to show price inelastic supply. • Time. Two years to build a uranium mine in Spain, ten years in 'development', difficult to find in right concentrations. • Factor immobility e.g. uranium mine cannot be switched to other uses • Regulation. 'Have to clear extra hurdles' due to government concerns regarding negative externalities. **NB KAA can be treated as Evaluation and vice versa**	**(6)**

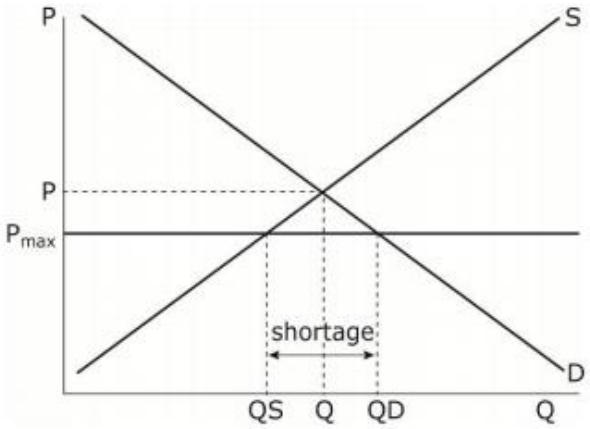
Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–2	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no link between causes and consequences.
Level 2	3–4	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or the answer may lack balance.
Level 3	5–6	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are applied appropriately to the broad elements of the question.

Question Number	Indicative content	Mark
6(b) continued	**Evaluation 4** Reasons why uranium is price elastic: • Time. Ability to store stockpiles of uranium, Figure 1 surplus suggests and 'stockpiles until 2020'. • 'Uranium is a relatively common metal'. Extract A Line 2 • Distinction between short run and long run and its significance for elasticity of supply. By 2018 mine in Uranium producing '2.2 million kilos a year'.	**(4)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/ reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evaluative comments supported by chains of reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question.

Question Number	Answer	Mark
6(c)	**Knowledge 2, Application 2 Analysis 2** **Award up to 3 marks for each reason**: **Knowledge/understanding** • Identification of two separate reasons: inertia, computational problems, information gap, all providers increasing prices over time. (1) **Application** 1 mark for, e.g. • 'Irrational consumers pay the price'. (1) • Energy prices have risen by 158% in the last 15 years.(1) • Four million households are still on the most expensive energy rates. (1) **Analysis** Linked development of why not switching to a supplier offering lower prices (1) **e.g.** • Inertia (1) despite a decade of rising energy bills (1) as consumers do not have the time or motivation to switch (1).	**(6)**

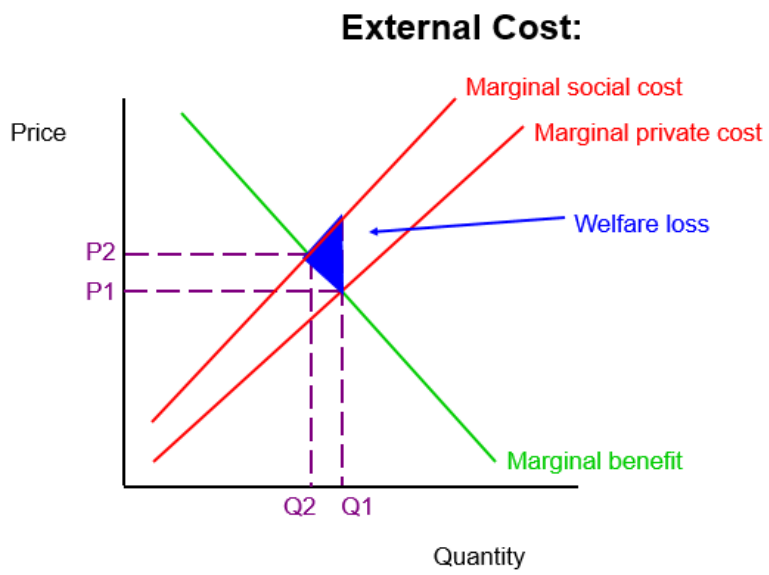
Question Number	Answer	Mark
6(d)	**Knowledge 2, Application 2** **Knowledge/understanding** 2 marks for e.g. Renewable energy is a resource made from something which can be renewed itself/infinite supply (1) Non-renewable energy is a resource which once exploited cannot be replaced/finite supply (1). **Application** 2 marks for, e.g. Energy generated by nuclear or coal is non-renewable (1) Solar or wind energy is renewable (1).	**(4)**

Question Number	Indicative content	Mark
6(e)	**Knowledge 3, Application 3, Analysis 3** • Understanding of maximum price.  The effect of a maximum price on consumers: • Energy prices more affordable for consumers, end of 'decade of rising energy bills', extension in demand for energy or increase in quantity demanded (inefficient use). The effect of a maximum price on producers: • Contraction in supply or decrease in quantity supplied, power stations turned off 'undermine energy market', decline in producer surplus or revenue/profit. **NB Level 3 responses must consider the effects on both energy consumers and producers.** **NB If no valid diagram then the maximum of Level 2 may be awarded**	**(9)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response; chains of reasoning are developed but the answer may lack balance.
Level 3	7–9	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using relevant and focused examples which are fully integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(e) continued	**Evaluation 6** • It depends on whether and how far the maximum price is below the market equilibrium price. • It depends on the PES of energy. • It depends on the PED for energy. • Comment on the costs to consumers – loss of consumer surplus, energy shortages, 'higher prices in the future'. • Comment on the impact on producers – producer behaviour e.g. may move up to the price cap, reduce investment • Government failure e.g. distortion of price signals, unintended consequences	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant chain of reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question.

Question Number	Indicative content	Mark
6(f)	**Knowledge 4, Application 4, Analysis 6**  Diagram(s) accurately drawn – with clearly labelled 'welfare loss' shaded triangle Explain costs to third parties in context. External costs: • Risk of nuclear accident – local schools and businesses close, impact on property prices. • High doses of nuclear radiation leaks increase the risk of cancer – loss of family income, employment, contribution to local economy, costs to NHS. • Cost of storage for future generations – opportunity cost of resources (land) tied to this, resulting in loss of income to farmers for example. • Opportunity cost of subsidies to nuclear industry, subsidy cuts to solar businesses. **NB KAA can be treated as Evaluation and vice versa** **NB If there is no Diagram, max Level 3**	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(f) continued	**Evaluation 6** Reduced external costs in production of substitutes/external benefits may mean it is under-produced: • Curb greenhouse gas emissions which are causing climate change, by using nuclear, resulting in less flooding or storm damage reducing insurance costs to businesses. Extract C • Building new nuclear reactors allow positive local economic effects from job creation. • Provide 'affordable energy' helping businesses stay open thus protecting jobs and ending fuel poverty resulting in lower demands for health care. Other evaluation points might include: • Magnitude – depends on relative size of external cost. • Measurement difficult – putting a value on external costs. • Energy efficiency measures more preferable. • Short term/long term costs and benefits.	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Question Number	Indicative content	Mark
6(g)	**Knowledge 4, Application 4, Analysis 6** Reasons for government intervention e.g. to correct market failure Link intervention to reducing carbon emissions. Appropriate diagram(s) accurately drawn. Ways might include: • Indirect taxation (ad valorem and/or specific) on carbon emissions providers e.g. coal/gas power stations, or workplace parking, reference to taxes directed at getting people out of their cars • Subsidies to solar/wind/nuclear energy/cycling/public transport • Maximum price on low/zero carbon emissions providers and minimum prices on carbon emitters. • Tradable pollution permits e.g. EU emissions trading scheme. • Provision of information, energy efficiency measures. • Regulation e.g. shut down all coal-fired power stations by 2025, reduction in car emissions by using low emission zones. **NB KAA can be treated as Evaluation and vice versa** **NB If there is no Diagram, max Level 3**	**(14)**

Level	Mark	Descriptor
	0	A completely inaccurate response.
Level 1	1–3	Displays isolated or imprecise knowledge and understanding of terms, concepts, theories and models. Use of generic or irrelevant information or examples. Descriptive approach which has no chains of reasoning or links between causes and consequences.
Level 2	4–6	Displays elements of knowledge and understanding of economic principles, concepts and theories. Applies economic ideas and relates them to economic problems in context, although does not focus on the broad elements of the question. A narrow response or superficial, two stage chains of reasoning only.
Level 3	7–10	Demonstrates accurate knowledge and understanding of the concepts, principles and models. Ability to apply economic concepts and relate them directly to the broad elements of the question with evidence integrated into the answer. Analysis is clear and coherent, although it may lack balance. Chains of reasoning are developed but the answer may lack balance.
Level 4	11–14	Demonstrates precise knowledge and understanding of the concepts, principles and models. Ability to link knowledge and understanding in context using appropriate examples. Analysis is relevant and focused with evidence fully and reliably integrated. Economic ideas are carefully selected and applied appropriately to economic issues and problems. The answer demonstrates logical and coherent chains of reasoning.

Question Number	Indicative content	Mark
6(g) continued	**Evaluation 6** Why the ways given may or may not be successful e.g. • Distortion of price signals. • Unintended consequences, energy shortages. • Excessive administrative costs, pollution permits. • Information gaps, external costs of non-carbon based energy sources, questioning link between carbon emissions and climate change. • Government failure to provide, solar and wind power 'vary with weather', nuclear accidents. • Relative benefits/costs of government intervention versus market based solutions.	**(6)**

Level	Mark	Descriptor
	0	No evaluative comments.
Level 1	1–2	Identification of generic evaluative comments without supporting evidence/reference to context. No evidence of a logical chain of reasoning.
Level 2	3–4	Evidence of evaluation of alternative approaches which is unbalanced leading to unsubstantiated judgements. Evaluative comments with supporting evidence/reference to context and a partially developed chain of reasoning.
Level 3	5–6	Evaluative comments supported by relevant reasoning and appropriate reference to context. Evaluation is balanced and considers the broad elements of the question, leading to a substantiated judgement.

Pearson Education Limited. Registered company number 872828
with its registered office at 80 Strand, London WC2R 0RL, United Kingdom