Mark Scheme (Results)

Summer 2026

Pearson Edexcel GCSE in Physics
1PH0/ 1F

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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.

Subject specific marking guidance

Symbols, terms used in the mark scheme

- Round brackets ( ): words inside round brackets are to aid understanding of the marking point but are not required to award the point
- Curly brackets { }: indicate the beginning and end of a list of alternatives (separated by obliques) where necessary to avoid confusion
- Oblique /: words or phrases separated by an oblique are alternatives to each other and either answer should receive full credit.
- ecf: indicates error carried forward which means that a wrong answer given in an early part of a question is used correctly to a later part of a question.

You will not see owtte (or words to that effect). Alternative correct wording should be credited in every answer unless the ms has specified specific.

The Additional Guidance column is used for extra guidance to clarify any points in the mark scheme. It may be used to indicate:

- what will not be accepted for that marking point in which case the phrase 'do not accept' will be alongside the relevant marking point
- it might have examples of possible acceptable answers which will be adjacent to that marking point

Question Number	Answer	Additional Guidance	Mark	AO Spec
1(a)	yellow (1) blue (1)	allow in either order in this context	**(2)**	**AO1 1** **5.10**

Question Number	Answer	Mark	AO Spec
1(b)	**The only correct answer is C** ***A*** *is incorrect because the frequency is too small* ***B*** *is incorrect because the frequency is too small* ***D*** *is incorrect because the frequency is too large*	**(1)**	**AO1 1** **5.10**

Question Number	Answer	Additional Guidance	Mark	AO Spec
1(c)(i)	(the) nucleus (1)	nuclei	**(1)**	**AO2 1** **6.21**

Question Number	Answer	Additional Guidance	Mark	AO Spec
1(c)(ii)	HARMFUL any one from destroy/damage/mutate (healthy) cells / DNA (1) damage body (1) USEFUL any one from kill microbes/germs/bacteria (1) treat cancer (1) named medical procedure (1) observe universe (1) industrial use (1)	accept tumour for cancer cause cancer damage named part of body affect fertility radiation {poisoning / sickness} sterilise {food/ equipment} kill cancer cells diagnose cancer PET scan radiotherapy gamma knife tracer industrial tracer crack / leak detection ignore properties such as ionisation/penetration ignore x-rays	**(2)**	**AO1 1** **5.21**

(Total for Question 1 = 6 marks)

Question Number	Answer	Mark	AO Spec
2(a)	**The only correct answer is A infrared** ***B*** *is incorrect because ultraviolet is not thermal radiation* ***C*** *is incorrect because x-rays are not thermal radiation* ***D*** *is incorrect because gamma rays are not thermal radiation*	**(1)**	**AO1 1** **5.10**

Question Number	Answer	Mark	AO Spec
2(b)	**The only correct answer is B good, good** ***A*** *is incorrect because poor, good does not describe the object* ***C*** *is incorrect because poor, poor does not describe the object* ***D*** *is incorrect because good, poor does not describe the object*	**(1)**	**AO1 1** **5.15P** **5.19P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
2(c)(i)	any **one** from thermometer(s) (1) stopwatch (1) measuring cylinder (1)	IR detector / temperature probe	**(1)**	**AO1 2** **5.19P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
2(c)(ii)	28 (°C)	27-28 (°C)	**(1)**	**AO3 1a** **5.19P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
2(c)(iii)	13 (°C)	12-15 (°C)	**(1)**	**AO3 2a** **5.19P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
2(c)(iv)	20 (°C)	19-20 (°C)	**(1)**	**AO3 2b** **5.19P**

(Total for Question 2 = 6 mark)

Question Number	Answer	Additional Guidance	Mark	AO Spec
3(a)(i)	substitution (1) (ΔGPE =) 17 × 10 × 2 evaluation (1) 340 (J)	award full marks for the correct answer without working if no other mark scored award 1 mark for 340 000	**(2)**	**AO2 1** **3.1**

Question Number	Answer	Additional Guidance	Mark	AO Spec
3(a)(ii)	140 (J)		**(1)**	**AO3 1a** **3.3**

Question Number	Answer	Additional Guidance	Mark	AO Spec
3(a)(iii)	substitution (1) (efficiency =) $\frac{560}{700}$ evaluation (1) 0.8	$\frac{560}{700}$ ×100 must have no unit to score this mark award full marks for the correct answer without working 80% scores 2 marks 80 scores 1 mark 0.8% scores 1 mark 0.8 J scores 1 mark	**(2)**	**AO2 1** **3.11**

Question Number	Answer	Additional Guidance	Mark	AO Spec
3(a)(iv)	(energy goes to the) thermal (store) (1) (of the) surroundings (1)	accept heat/internal for thermal in this context sound in this context (into the) air/atmosphere/water/ environment/wheel dissipates scores 2 marks ignore disappear	**(2)**	**AO1 1** **3.7**

Question Number	Answer	Additional Guidance	Mark	AO Spec
3(b)(i)	**one** advantage from does not use (fossil) fuels (1) less (atmospheric) pollution (1) less global warming (1)	accept sustainable/renewable does not emit harmful gas eg $S0_2$ does not cause acid rain does not emit greenhouse gases / CO_2 ignore unqualified environment cost / energy output comparison / efficiency	**(1)**	**AO1 1** **3.13**

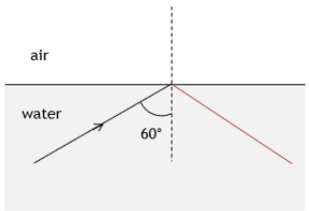
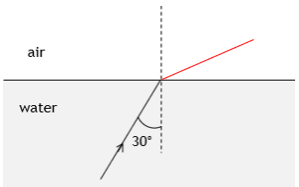
Question Number	Answer	Additional Guidance	Mark	AO Spec
3(b)(ii)	**one** disadvantage from named environmental impact (1) unreliable (1) geographically restricted (1)	 accept visual noise covers a wide area threatens bird-life not always windy windy place coastal regions open countryside on the sea ignore cost / energy output comparison / efficiency	 **(1)**	 **AO1 1** **3.13**

(Total for Question 3 = 9 marks)

Question Number	Answer	Mark	AO Spec
4(a)(i)	**The only correct answer is D refraction** ***A*** *is incorrect because the rays are not absorbed* ***B*** *is incorrect because the rays are not diffused* ***C*** *is incorrect because the rays are not reflected*	**(1)**	**AO1 1** **5.1P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
4(a)(ii)	substitution (1) (focal length =)$\frac{1}{12.5}$ evaluation (1) 0.08 (m)	award full marks for the correct answer without working 0.08 to any other power of ten scores 1 mark	**(2)**	**AO2 1** **5.4P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
4(a)(iii)	a description to include move the lens (1) **AND** between object and screen (1) **OR** (obtain) clear image (of the object on the screen) (1) **OR** (obtain) image on the screen (1)	move object/screen change angle of lens if no other mark scored award 1 mark for image forms where rays cross	**(2)**	**AO2 2** **5.6P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
4(b)	Figure 9 ray reflected with r = 60° (1) Figure 10 ray refracted away from the normal (1)	judge by eye   	**(2)**	**AO3 2a** **AO3 2b** **5.1P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
4(c)	substitute into distance = speed x time (1) (distance =) 3(00 000) x 1.3 evaluation (1) (distance =) 3.9 (x 10^5) consistent unit (1) km	 390 000 must be consistent with evaluation eg 390 000 000 m 390 000 km 390 Mm award full marks for the correct answer without working	 **(3)**	 **AO2 1** **4.6**

(Total for Question 4 = 10 marks)

Question Number	Answer	Additional Guidance	Mark	AO Spec
5(a)(i)	63 Ni (1) 28 (1)	must be in this order	**(2)**	**AO1 1** **6.3**

Question Number	Answer	Mark	AO Spec
5(a)(ii)	**The only correct answer is C 28** ***A*** *is incorrect because 63 is the mass number* ***B*** *is incorrect because 35 is the neutron number* ***D*** *is incorrect because 7 is the neutron number minus the proton number*	**(1)**	**AO1 1** **6.6**

Question Number	Answer	Mark	AO Spec
5(a)(iii)	**The only correct answer is A electrons** ***B*** *is incorrect because positrons have a positive charge* ***C*** *is incorrect because protons have a positive charge* ***D*** *is incorrect because neutrons have no charge*	**(1)**	**AO1 1** **6.15**

Question Number	Answer	Additional Guidance	Mark	AO Spec
5(b)	any **two** from lead lined clothing (1) safe storage (1) limit exposure time (1) remote handling (1) safe distance (1) shielding / lead screen (1)	accept gloves/hazmat suit lead (lined) box locked container dosimeter/badge tongs/robots ignore PPE unqualified goggles/mask chemical hazards of phosphorus eg flame, fire	**(2)**	**AO1 1** **6.31**

Question Number	Answer	Additional Guidance	Mark	AO Spec
5(c)(i)	10.5 (± 0.5)	the number can be marked on the graph if the answer line is blank	**(1)**	**AO2 1** **6.27**

Question Number	Answer	Additional Guidance	Mark	AO Spec
5(c)(ii)	24.8 (± 0.5)	the number can be marked on the graph if the answer line is blank	**(1)**	**AO2 1** **6.27**

Question Number	Answer	Additional Guidance	Mark	AO Spec
5(c)(iii)	(half-life =) 14.3 (± 1.0)	ecf from (c)(i) and (c)(ii) the number can be marked on the graph if the answer line is blank	**(1)**	**AO2 1** **6.27**

Question Number	Answer	Additional Guidance	Mark	AO Spec
5(c)(iv)	substitution (1) $\frac{70 (\times 100)}{500}$ evaluation (1) 14 (%)	$\frac{7000}{500}$ award full marks for the correct answer without working 0.14 scores 1 mark	**(2)**	**AO3 1a** **AO3 1b** **6.27**

(Total for Question 5 = 11 marks)

Question Number	Answer	Additional Guidance	Mark	AO Spec
6(a)(i)	substitution (1) (a=) $\frac{0.8(0)}{0.07(0)}$ evaluation (1) (a=) 11 (m/s^2)	 accept values that round to 11 e.g. 11.42857... (m/s^2) award full marks for the correct answer without working	 **(2)**	 **AO2 1** **2.15**

Question Number	Answer	Additional Guidance	Mark	AO Spec
6(a)(ii)	suggestion to include **one** from (rocket) fuel is burned/used (1) (exhaust) gases emitted (1)	 accept less fuel fumes/smoke for gases	 **(1)**	 **AO2 1** **2.15**

Question Number	Answer	Mark	AO Spec
6(b)	**The only correct answer is B energy** ***A*** *is incorrect because acceleration is a vector* ***C*** *is incorrect because force is a vector* ***D*** *is incorrect because velocity is a vector*	 **(1)**	 **AO1 1** **2.4**

Question Number	Answer	Mark	AO Spec
6(c)	**The only correct answer is C kN** ***A*** *is incorrect because kg is a unit of mass* ***B*** *is incorrect because kg m is a unit for mass × distance* ***D*** *is incorrect because N m is a unit for force × distance*	 **(1)**	**AO2 1** **1.1** **1.2**

Question Number	Answer	Additional Guidance	Mark	AO Spec
6(d)(i)	substitution into $a = \frac{v - u}{t}$ (1) evaluation (1) (a=) 0.12 (m/s^2)	$\frac{4.6 - 4(.0)}{5(.0)}$ or $\frac{0.6}{5(.0)}$ accept $\frac{4(.0) - 4.6}{5(.0)}$ for 1 mark only award full marks for the correct answer without working – 0.12 scores 1 mark only (negative value) 0.92 or 0.8 scores 1 mark	**(2)**	**AO2 1** **2.8**

Question Number	Answer	Additional Guidance	Mark	AO Spec
6(d)(ii)	a description to include measure time (for the complete run) (1) (complete run distance =) lap distance x number of laps (1) use of (average speed =) $\frac{\text{(total) distance}}{\text{(total) time}}$ (1) alternative description: measure time for one lap (1) find speed (for each lap using) (speed =) $\frac{\text{distance}}{\text{time}}$ (1) add up speeds and divide by 12 (to find average speed) (1)	accept 400 × 12 or 4800 seen (speed =) $\frac{400}{\text{time}}$	**(3)**	**AO1.2** **2.6**

(Total for Question 6 = 10 marks)

Question Number	Answer	Mark	AO Spec
7(a)	**The only correct answer is B Neptune** ***A*** *is incorrect because Mars is closer to the Sun than Neptune* ***C*** *is incorrect because Uranus is closer to the Sun than Neptune* ***D*** *is incorrect because Venus is closer to the Sun than Neptune*	**(1)**	**AO1 1** **7.3P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
7(b)	(Titan is) (a) moon (1) (Pons-Brooks is) (a) comet (1)	must be in this order	**(2)**	**AO1 1** **7.3P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
7(c)(i)	substitution into $W = m \times g$ (1) (W =) 18 x 3.7 evaluation (1) 67 (N)	accept answers that rounds to 67 e.g. 66.6... award full marks for the correct answer without working allow 1 mark only for 66 600 or 67 000	**(2)**	**AO2 1** **2.16**

Question Number	Answer	Additional Guidance	Mark	AO Spec
7(c)(ii)	substitution into (1) $\frac{330\,000}{320}$ (:1) evaluation (1) 1030 (: 1)	33000(0):32(0) or 3300:3.2 allow values that round to 1030 eg 1031.25 award full marks for the correct answer without working 0.0010 scores 1 mark ignore any units given	**(2)**	**AO2 1** **7.2P**

Question Number	Answer	Mark	AO Spec
***7(d)**	Answers will be credited according to candidate's deployment of knowledge and understanding of the material in relation to the qualities and skills outlined in the generic mark scheme. The indicative content below is not prescriptive and candidates are not required to include all the material which is indicated as relevant. Additional content included in the response must be scientific and relevant. **AO1** Stages in star's evolution • nebula • [protostar] • main sequence • red giant • [planetary nebula] • white dwarf • [black dwarf] Changes in stages • nebula collapses under gravity • fusion starts when hot enough • in main sequence, balance between {thermal expansion/radiation pressure} and gravity • main sequence ends when nuclear fuel runs out • collapses under gravity • then expands to red giant • red giant ends when nuclear fuel runs out • collapses under gravity • [forms a planetary nebula] • [core eventually becomes] white dwarf **Square brackets [ ] contain information that is beyond the specification but is still credit worthy*	**(6)**	**AO1 1** **7.16P**

Level	Mark	Descriptor
	0	• No rewardable material
Level 1	1-2	• Demonstrates elements of physics understanding, some of which is inaccurate. Understanding of scientific ideas lacks detail. (AO1) • Presents a description with some structure and coherence. (AO1)
Level 2	3-4	• Demonstrates physics understanding, which is mostly relevant but may include some inaccuracies. Understanding of scientific ideas is not fully detailed and/or developed. (AO1) • Presents a description that has a structure which is mostly clear, coherent and logical. (AO1)
Level 3	5-6	• Demonstrates accurate and relevant physics understanding throughout. Understanding of the scientific ideas is detailed and fully developed. (AO1) • Presents a description that has a well-developed structure which is clear, coherent and logical. (AO1)

Level	Mark	Additional Guidance	**General Additional Guidance**
	0	No rewardable material.	
Level 1	1–2	Additional guidance isolated facts: names two stages	Possible candidate responses nebula and main sequence
Level 2	3–4	Additional guidance limited description: one change in stage OR four stages in correct order	Possible candidate responses gas and dust collapses under gravity to become main sequence star OR eg nebula > main sequence > red giant > white dwarf or eg protostar > main sequence > planetary nebula > white dwarf
Level 3	5–6	Additional guidance 'complete' description: two changes in stages with at least 2 stages named OR four stages in correct order and description of one change in stage	Possible candidate responses a nebula collapses under gravity until hot enough for (nuclear) fusion and becomes main sequence star OR a nebula collapses under gravity to become main sequence star > red giant > white dwarf

(Total for Question 7 = 13 marks)

Question Number	Answer	Additional Guidance	Mark	AO Spec
8(a)(i)	$\left(\frac{4.5}{6}=\right)$ 0.75 (m) (1)	accept 0.7 or 0.8	**(1)**	**AO2 1** **4.4**

Question Number	Answer	Additional Guidance	Mark	AO Spec
8(a)(ii)	a description to include vibrates / oscillates (1) and parallel to {the direction of energy transfer / wave direction} OR in the same direction as {the direction of energy transfer / wave direction} (1)	side to side / left and right / back and forth	**(2)**	**AO1 1** **4.5**

Question Number	Answer	Additional Guidance	Mark	AO Spec
8(b)(i)	9.1 (ms)	0.0091 s or 9.1 x10^{-3} s	**(1)**	**AO2.2** **4.7**

Question Number	Answer	Additional Guidance	Mark	AO Spec
8(b)(ii)	selection and rearrangement (1) speed = $\frac{\text{distance}}{\text{time}}$ substitution (1) $(\text{speed} =) \frac{3(.0)}{9.1\ (x10^{-3})}$ evaluation (1) 330 (m/s)	accept $(\text{speed} =) \frac{3(.0)}{\text{time obtained from table}}$ ecf from (b)(i) 0.330 ecf from (b)(i) accept values that round to 330 e.g. 329.67 award full marks for the correct answer without working 330 to any other power of ten scores 2 marks	**(3)**	**AO2 2** **4.7**

Question Number	Answer	Additional Guidance	Mark	AO Spec
8(b)(iii)	an explanation linking (student has a large) reaction time (using the stopwatch) OR no (significant) delay with electronic timer (1) with (measured) time (very) small / less than reaction time OR difficult to measure small times with stopwatch / can measure small times with electronic timer (1)	 idea of delay in pressing stopwatch or slow reaction OR electronic timer has no (significant) reaction time sound travels (too) fast/quick (to measure over 3m with a stopwatch) ignore references to accuracy, precision, reliability, human error	 **(2)**	 **AO3 3b** **4.17**

Question Number	Answer	Additional Guidance	Mark	AO Spec
8(c)	substitution (1) (f =) $\frac{1.2}{0.3(0)}$ evaluation (1) (f=) 4(.0) (Hz)	 award full marks for the correct answer without working	 **(2)**	 **AO2 1** **4.6**

(Total for Question 8 = 11 marks)

Question Number	Answer	Additional Guidance	Mark	AO Spec
9(a)	any two factors from • thinking distance / thinking time / reaction time / reaction speed (1) • drugs / alcohol / caffeine (1) • tiredness (1) • distractions / using mobile phone (1) • age / experience (1) • braking distance (1) • mass / weight of vehicle / size of vehicle / number of passengers / load carried (1) • effectiveness / condition of brakes (1) • force/pressure applied to brakes (1) • state of {tyres/wheels} or worn/bald {tyres/wheels} (1) • condition of road / gravel / smooth road (1) • friction (between road and tyres) / drag (1) • weather conditions / wind / fog / rain / ice (on road) (1)	ignore braking time ignore bends/ hill / slope	**(2)**	**AO1 1** **2.29**

Question Number	Answer	Additional Guidance	Mark	AO Spec
9(b)(i)	68 to 80 inclusive (cm)	if nothing on answer line accept numerical answer on graph	**(1)**	**AO3 1a** **2.29**

Question Number	Answer	Additional Guidance	Mark	AO Spec
9(b)(ii)	EITHER one pair of speed and distance values from the curve e.g. (20,12) (1) second pair of speed and distance values from the curve which show the prediction is incorrect e.g. (40,48) (1) OR the student predicts a linear relationship (1) the graph shows a {curve / non-linear relationship} (1)	the student predicts relationship is (directly) proportional	**(2)**	**AO3 2a** **AO3 2b** **2.29**

Question Number	Answer	Additional Guidance	Mark	AO Spec
9(b)(iii)	description to include (measure the) mass of the lorry (1) use (KE =) ½ × m × v^2 (1)	ignore measure the speed (at P) weigh the lorry ignore weight	**(2)**	**AO3 3a** **2.29**

Question Number	Indicative Content	Mark	AO Spec
***9(c)**	Answers will be credited according to candidate's deployment of knowledge and understanding of the material in relation to the qualities and skills outlined in the generic mark scheme. The indicative content below is not prescriptive and candidates are not required to include all the material which is indicated as relevant. Additional content included in the response must be scientific and relevant. **AO3** • (velocity) increases to a maximum at 8 s • (velocity) decreases to until 14 s • (velocity) stays constant for 6 s • (velocity) decreases to zero by 25 s **AO2** • velocity increases/motorbike accelerates until 8 s • acceleration of 2.5 m/s^2 • velocity decreases/motorbike decelerates for 6 s • deceleration of 2.17 m/s^2 • velocity is constant for 6 s • velocity is constant between 14 and 20 s • velocity decreases/motorbike decelerates until 25 s • velocity decreases/motorbike decelerates between 20 and 25 s • deceleration of 2.4 m/s^2	**(6)**	**AO2 1** **AO3 1a** **AO3 1b** **2.10**

Level	Mark	Descriptor
	0	• No rewardable material
Level 1	1-2	• Interpretation and evaluation of the information attempted but will be limited with a focus on mainly just one variable. Demonstrates limited synthesis of understanding. (AO3) • The description attempts to link and apply knowledge and understanding of scientific ideas, flawed or simplistic connections made between elements in the context of the question. (AO2)
Level 2	3-4	• Interpretation and evaluation of the information on both variables, synthesising mostly relevant understanding. (AO3) • The description is mostly supported through linkage and application of knowledge and understanding of scientific ideas, some logical connections made between elements in the context of the question. (AO2)
Level 3	5-6	• Interpretation and evaluation of the information, demonstrating throughout the skills of synthesising relevant understanding. (AO3) • The description is supported throughout by linkage and application of knowledge and understanding of scientific ideas, logical connections made between elements in the context of the question. (AO2)

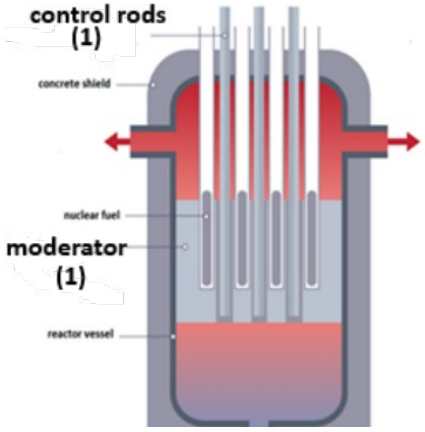
Level	Mark	Additional Guidance	**General Additional Guidance** inaccurate data can reduce mark within the level
	0	No rewardable material.	
Level 1	1–2	Additional guidance isolated facts about the motion or the shape of the graph – no relevant time data.	Possible candidate responses the motorbike speeds up and slows down
Level 2	3–4	Additional guidance description of two from an acceleration, a deceleration, a constant velocity with both linked to relevant time data from the graph.	Possible candidate responses the motorbike speeds up for the first 8 seconds then slows down for the next 6 seconds
Level 3	5–6	Additional guidance description of an acceleration, a deceleration and a constant velocity with at least two linked to relevant time data from the graph.	Possible candidate responses the motorbike speeds up for the first 8 seconds then slows down until 14 s then travels at a constant velocity (of 12 m/s) for the next 6 seconds

(Total for Question 9 = 13 marks)

Question Number	Answer	Mark	AO Spec
10(a)(i)	**The only correct answer is C release of energy, larger** ***A*** *is incorrect because absorption of energy is not involved* ***B*** *is incorrect because absorption of energy is not involved* ***D*** *is incorrect because smaller nuclei are not created*	**(1)**	**AO1 1** **6.43P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
10(a)(ii)	an explanation linking (so that nuclei have) high/ sufficient (kinetic) energy (1) (to overcome electrostatic) repulsion between nuclei (1)	accept (nuclei have) high/ sufficient speeds (nuclei have) high /sufficient velocities	**(2)**	**AO1 1** **6.45P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
10(b)(i)	a description to include any two from (the uranium nucleus) absorbs the neutron (1) (nucleus becomes) unstable (1) emits (2/3) neutrons (1) nucleus splits (1) releases [energy / gamma} rays (1)	accept enters for absorbs ignore meets / hits / collides / joins	**(2)**	**AO1 1** **6.38P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
10(b)(ii)		**'control rod(s)'** must have both words accept graphite (core)	**(2)**	**AO2 1** **6.40P**

Question Number	Answer	Additional Guidance	Mark	AO Spec
10(c)	statements including: any two from FOR no / little carbon emissions / greenhouse gases (1) avoids using fossil fuels (1) (good) supply of uranium (1) reliable (1) area of land used less than for other sources (1) any two from AGAINST expensive to build (1) nuclear / radioactive waste (disposal) (1) (can be linked to) nuclear weapons (programme) (1) public perception (1)	ignore references to renewable or non-renewable doesn't cause global warming / climate change high energy/power supply (per kg fuel) not dependent on weather long time to build expensive to decommission security / terrorist use	**(4)**	**AO2 1** **6.36P**

(Total for Question 10 = 11 marks)

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