Qualification Accredited

OCR
Oxford Cambridge and RSA

Examiners' report

A LEVEL

PHYSICS A

OCR Level 3 Advanced GCE in Physics A

H556

For first teaching in 2015

H556/03 Summer 2025 series

Version 1

Contents

Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate responses is also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from Teach Cambridge.

Paper 3 series overview

H556/03, 'Unified Physics', is the third of the three examination components for the GCE Physics A qualification. Compared to Papers H556/01 and H556/02, a higher proportion of the questions in H556/03 target assessment objectives AO2 and AO3. For example, candidates can be asked to analyse and interpret experimental data, as in Question 2, and they should expect calculations involving multiple steps. Questions may be set on any part of the specification, including practical skills and techniques. The paper is synoptic, and any individual question could cover material from several different topics. Candidates must be able to apply their knowledge and understanding in unfamiliar contexts in order to gain high marks.

In general candidates were able to answer questions involving mathematical content more confidently than those which required descriptions or explanations. Centres may wish to consider providing more opportunities for candidates to answer and then review descriptive questions related to unfamiliar contexts.

Candidates who did well on this paper generally:	Candidates who did less well on this paper generally:
• showed every step in calculations • provided clear and well-structured responses • used accurate scientific terminology • were confident applying their knowledge in unfamiliar contexts • read the instructions on the Level of Response questions and were careful to answer all parts of the question.	• struggled to rearrange formulae correctly • set out working for calculations in a haphazard manner • made errors selecting or transcribing data from the question stem or graphs • gave incorrect values for common SI prefixes • gave generic descriptive answers which did not address the context within the question.

Question 1 (a) (i)

1 The Earth's aurora is an atmospheric effect visible in the polar regions.

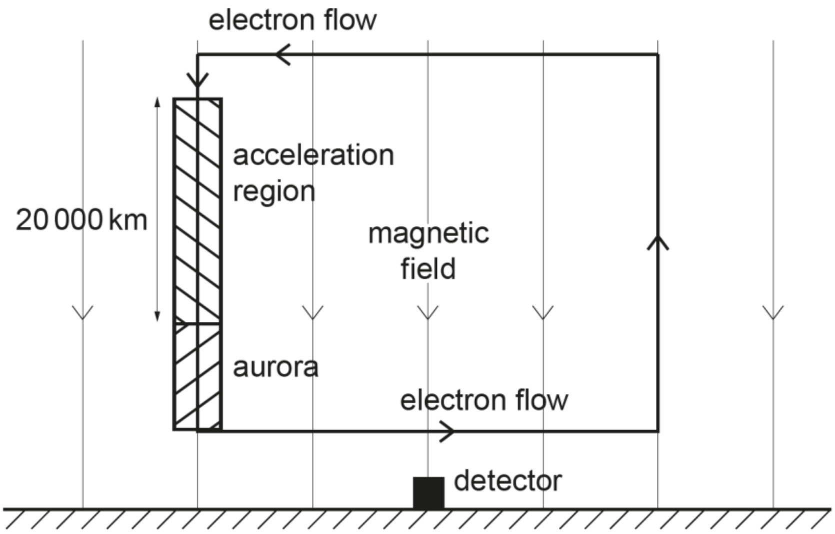
Electrons in the upper atmosphere initially move vertically downwards along one of the Earth's **magnetic** field lines. They are accelerated by an **electric** field.

These electrons collide with oxygen atoms causing atomic electrons to be excited to higher energy levels. The atomic electrons then return to lower energy levels, releasing photons of green light, red light and ultraviolet.

The accelerated electrons then travel horizontally through the atmosphere, before travelling vertically along a different magnetic field line, and then completing the circuit by travelling horizontally back to their starting point.

The situation is shown in **Fig. 1.1**.

Fig. 1.1



not to scale

(a) The accelerated electrons are accelerated by electric fields parallel to the magnetic field lines.

The length of the acceleration region is 20 000 km and the electric field value is 0.2 mV / m. The electric field can be assumed to be uniform.

(i) Calculate the kinetic energy gained by the electrons as they pass through the electric field, in joules.

kinetic energy = ...J **[3]**

This question was generally well answered with about half of candidates gaining all 3 marks. Most candidates chose appropriate equations and were able to substitute into and rearrange them correctly. Some candidates made substitutions containing power of ten errors.

A significant minority correctly calculated the potential difference as 4000 V but then incorrectly substituted this as velocity, v, into the kinetic energy formula $\frac{1}{2}mv^2$.

Other common mistakes were:

- incorrectly attempting to use the formula to determine the electric field strength for a point charge
- conflating *E* for electric field strength with energy.

Common issue

Candidates should remember to use a formula that contains appropriate variables for the data in the question.

Question 1 (a) (ii)

(ii) State and explain the direction of the electric field required to accelerate the electrons **downwards**.

....

....

....

.... **[2]**

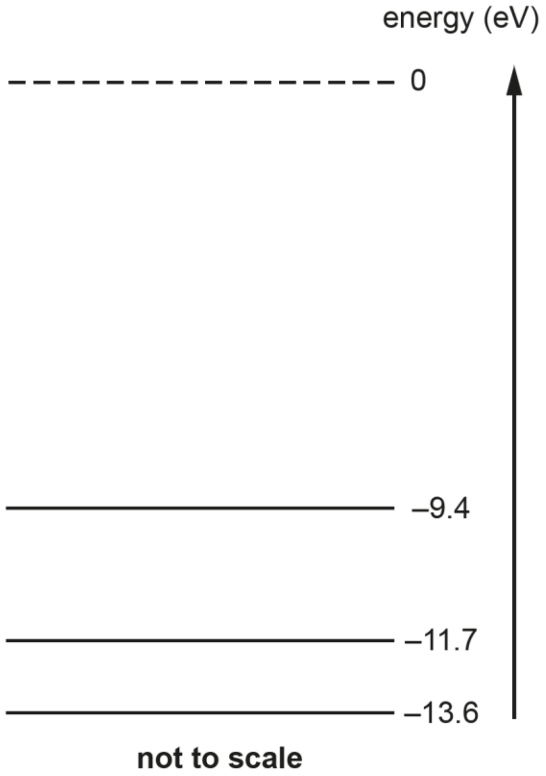
About one third of candidates gained both marks here. Many candidates did not explain that electrons move in the opposite direction to the electric field, or equivalent. Some simply restated information from the stem of the question or diagram.

A common mistake was stating that the field was in the same direction as the electron motion.

A misconception was stating that the electric field had to be perpendicular to the Earth's magnetic field. The question stem stated that the electric field was parallel to the magnetic field line.

Question 1 (b)

(b) A simplified energy level diagram for atomic oxygen is shown below.



Determine the wavelength of the green light emitted.

Fully justify your answer.

wavelength = ... m **[4]**

Most candidates attempted to use the correct formula. A common error was using this for an energy level transition to 0, often 9.4 or 11.7 eV.

The strongest responses were those where the energy level transition of 11.7 to 9.4 eV was identified and stated at the start of the response.

Question 1 (c)

(c) The horizontal current closest to the Earth produces a magnetic field which can be detected at ground level.

With reference to **Fig. 1.1**, state and explain the direction of this magnetic field.

....

....

....

.... **[2]**

Candidates who gained full marks often started by correctly stating the direction of current.

A common mistake was attempting to apply either Fleming's left-hand or right-hand rule to the situation.

A common misconception was stating that current was in the same direction as the flow of electrons.

Labelling diagrams

Candidates could gain marks by adding to the diagram. These responses were only creditworthy if it was clear what quantity the addition represented for example, an arrow to the left at an appropriate place labelled 'current' or 'I'.

Question 1 (d)

(d) Suggest **two** ways that the horizontal current may affect the atmosphere.

1 ....

....

2 ....

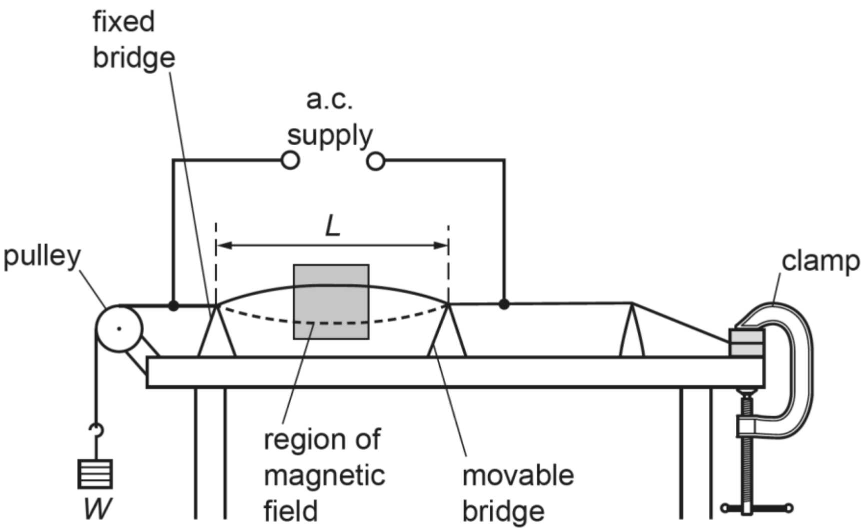
.... **[2]**

Many responses did not refer to atmospheric effects or repeated information from the stem and therefore could not gain marks. The most common correct response referred to ionisation of atoms causing lightning.

Very few candidates referred to the heating effect of a current.

Question 2 (a)

2 A student carries out an experiment to measure the frequency, *f*, of the mains electricity supply, using the apparatus shown in the diagram.



The wire passes between the poles of a magnet. It is held in tension by the weight *W* of the mass hanger. The fixed bridge and the movable bridge are separated by distance *L*.

Mains frequency current is passed through the wire. The student adjusts the movable bridge until the wire vibrates at its fundamental frequency. The weight *W* and the length *L* are recorded. This is repeated for several different weights.

(a) Explain how a stationary wave is formed on the wire.

....

....

....

.... **[2]**

To gain full credit, candidates had to refer to both the force producing the vibration and the principle of superposition of waves. It was common for candidates to address one but not both points in their response. Approximately half of the candidates gained 1 mark, usually for explaining superposition in context.

The strongest responses were often the most succinct. These usually described the incident and reflected waves interfering or superposing.

Responses that did not gain marks often simply described what the nodes and antinodes seen in the diagram represented or referred to magnets attracting wires.

Question 2 (b) (i)

(b) It can be shown that the fundamental frequency f_0 of a wire of length L under tension W is given by the equation

$$f_0 = \frac{1}{2L}\sqrt{\frac{W}{\mu}}$$

where μ is the mass per unit length of the wire, and has a value of $8.0 \times 10^{-4}\,\text{kg}\,\text{m}^{-1} \pm 2\%$.

(i) Suggest why the magnetic flux density, B, of the magnet does not appear in this equation.

....

.... **[1]**

Few candidates gained marks on this question for correctly explaining that the magnetic flux density (only) affects the size of the force or amplitude of the wave. Most candidates simply stated that it does not affect the frequency or other quantities in the equation.

Question 2 (b) (ii)

(ii) Suggest a method to determine the mass per unit length, μ, of the wire.

....

....

....

.... **[2]**

Many candidates provided over complicated responses to this question, attempting to use the experimental set up and formula stated in b(i) rather than providing a simple method to determine the quantity.

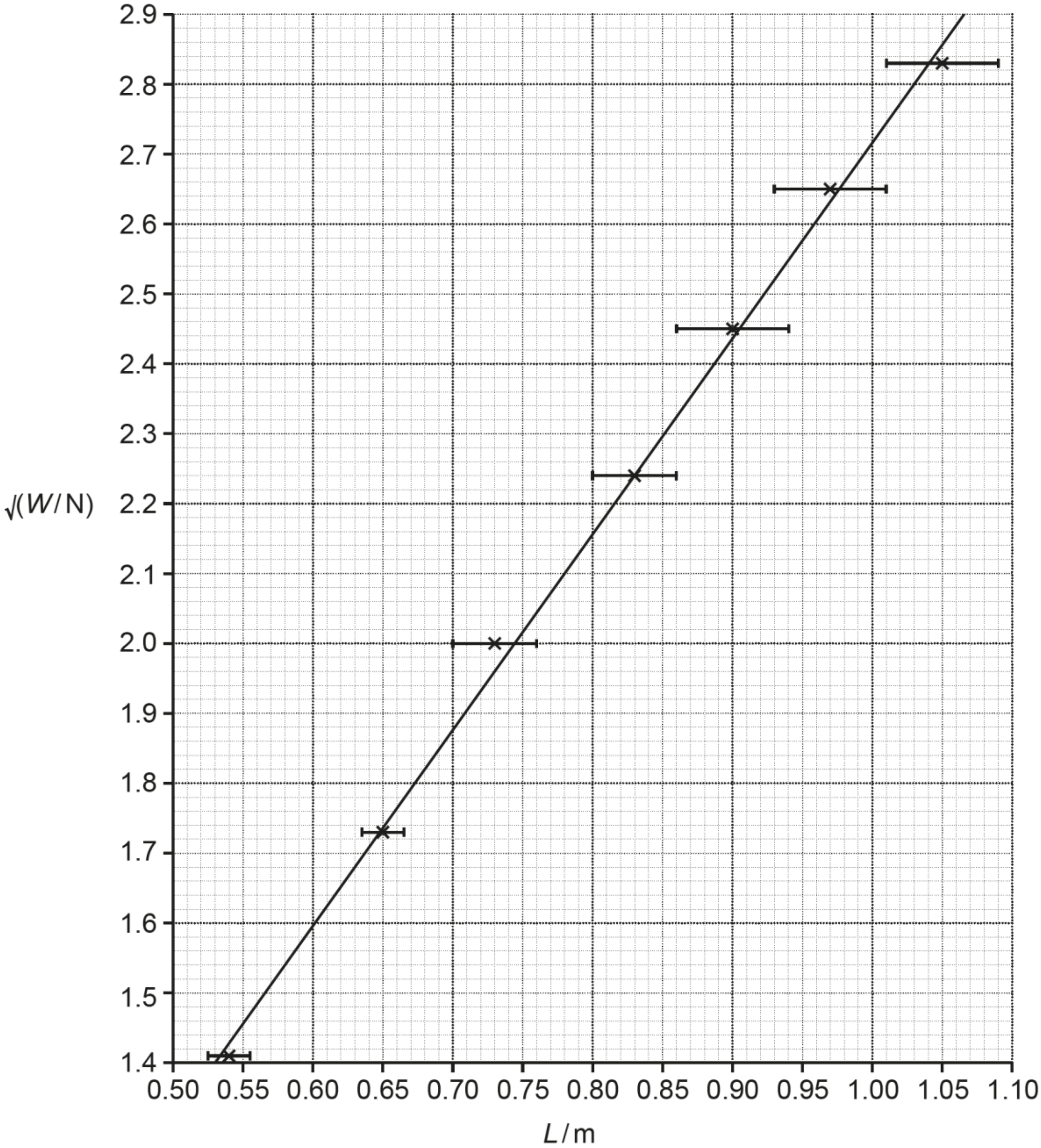
A significant minority of candidates incorrectly assumed that W was the weight of the wire or conflated mass and weight in their description.

Assessment for learning

Opportunities can be provided during practical work for candidates to describe how to determine derived quantities, for example the cross-sectional area of a wire. These descriptions should include the equipment that is used to take the required measurements, for example a top pan balance to measure mass.

Question 2 (c) (i)

(c) The graph shows the results of the experiment.



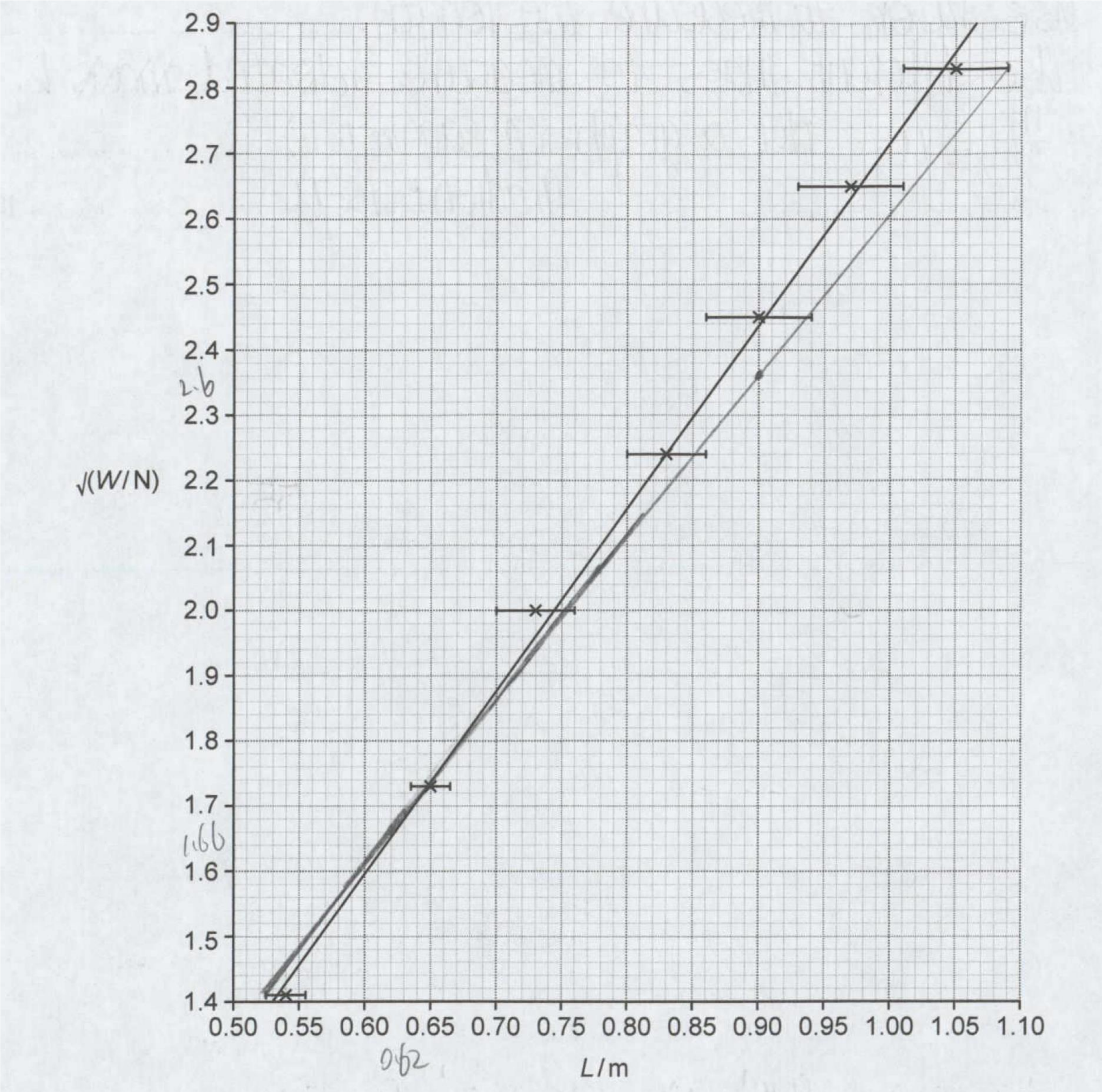
The student draws a best fit line on the graph. The gradient of the best fit line is 2.81 $N^{1/2} m^{-1}$.

(i) Draw a worst acceptable line on the graph. **[1]**

Most candidates gained this mark. Candidates who attempted the steepest line of worst fit were more likely to gain a mark than those attempting the shallowest line. The shallowest line needed to pass through the extreme right-hand end of the penultimate error bar which was often overlooked.

A significant number of lines appeared to be drawn using a 15 cm ruler rather than a 30 cm one resulting in lines with overlaps or changes in gradient. Many lines were over 1 mm thick or several lines were drawn without a clear indication of which was the intended final line.

Exemplar 1



This response illustrates several of the common issues identified above. The line does not pass through the penultimate error bar and appears to have been drawn in sections rather than as one continuous thin line using a 30 cm ruler.

OCR support

The Practical skills handbook: Physics has support for drawing graphs in Appendix 5.

Question 2 (c) (ii)

(ii) Use your worst acceptable line to calculate the percentage uncertainty in the gradient of the best fit line.

gradient = 2.81 ± .... $N^{1/2}\,m^{-1}$ % **[3]**

The majority of candidates gained all 3 marks. Some candidates recalculated the gradient of the line of best fit even though the value was clearly stated in the question and on the answer line. The strongest responses were those where every step in the method was evident.

Question 2 (c) (iii)

(iii) Calculate a value for the mains frequency, *f*, including a percentage uncertainty.

f = ... Hz ± ....% **[3]**

Many candidates were able to gain all 3 marks by substituting the gradient for the line of best fit into the equation and correctly evaluating the frequency and percentage uncertainty.

Common errors were ones where candidates incorrectly rearranged the equation or tried to use data from the graph.

Some candidates rounded their answer to two significant figures and credit was given if the value was seen to three or more significant figures in their working.

Question 2 (c) (iv)

(iv) Evaluate the accuracy of your value for *f*, given that the true value is 50.0 Hz.

....

....

....

.... **[2]**

This question was challenging for a significant number of candidates. Many responses were vague and made no reference to the percentage difference or range of values.

Common uncreditworthy responses were stating that the values were close or that it was accurate because values were the same to two significant figures.

Some candidates calculated the percentage difference or range but then did not use this in their comparison and evaluation.

Question 3 (a)

3 This question is about comparing two methods for storing energy.

(a) A proposed method for storing energy uses trucks powered by electric motors.

The trucks carry sand up a mountain, storing surplus energy as gravitational potential energy.

When the energy needs to be released, they carry the sand back down the mountain, converting the gravitational potential energy into chemical energy stored in a battery.

Explain how an electrical generator in the truck could use **electromagnetic induction** to convert gravitational potential energy into chemical energy stored in a battery.

....

....

....

....

....

.... **[3]**

Many candidates gained no marks on this question. Many responses were vague, for example 'turn a generator' or confused saying, for example, that the sand moved through magnets. Some responses were not clearly linked to the context given.

The question stem clearly highlighted the need to discuss electromagnetic induction but many responses only described energy stores.

The mark most often gained was for discussing the rate of change of flux linkage. Many candidates attempted to describe how this might be achieved but often omitted to mention relative motion between a coil/wire and a magnet.

Question 3 (b)

(b) A second proposed method for storing energy uses a tank of wax.

The wax is heated using an electrical heater, storing surplus energy as internal energy of the wax. The wax increases in temperature and melts as it is heated.

When the energy needs to be released, the wax is allowed to cool, converting the internal energy of the wax into thermal energy.

Explain, in terms of the particles in the wax, how energy is stored when it is heated.

....

....

....

....

....

.... **[3]**

Candidates who gained marks clearly linked either the increase in temperature or change in state to the correct increase in energy. Many responses were vague, for example, simply discussing changes in energy while the wax was 'being heated'.

A significant minority incorrectly referenced changes in gravitational potential energy or the kinetic theory of gases.

Candidates should be encouraged to structure responses so that they address each stage in a process sequentially so that they are less likely to write contradictory or generalised answers.

Exemplar 2

As it is heated, the particles gain kinetic energy whilst the temperature increases. Once the wax reaches its melting point, the temperature stays constant and the potential energy of the particles increases as it melts. These increase the total internal energy of the wax. **[3]**

This is an example of how candidates can logically structure answers to reference different stages in the process.

Question 3 (c)*

(c)* A gravitational potential energy storage system, as described in **(a)**, is proposed as follows:

- height of mountain = 1 km
- overall efficiency = 70 %

A thermal energy storage system, as described in **(b)**, is proposed as follows:

- lower operating temperature = 18 °C
- melting point of wax = 51 °C
- upper operating temperature = 70 °C
- specific heat capacity of solid wax = 2.6 $\text{kJ kg}^{-1}\text{K}^{-1}$
- specific heat capacity of liquid wax = 3.0 $\text{kJ kg}^{-1}\text{K}^{-1}$
- specific latent heat of fusion of wax = 160 kJ kg^{-1}
- overall efficiency = 95 %

Estimate the energy that can be stored by each system using 1 kg of sand or wax.

Discuss which system would be more appropriate for storing surplus electrical energy. Your answer should include an estimate of the energy that can be stored in each system using 1 kg of sand or wax.

Ignore any financial factors.

....

....

....

....

....

.... **[6]**

This Level of Response (LoR) question was well answered by the majority of candidates who were able to gain a high Level 2 or Level 3 mark.

Characteristics of Level 3 responses were clearly set out calculations that indicated what was being calculated at each stage and a discussion which included a clear comparison of the total energy stored by wax and sand.

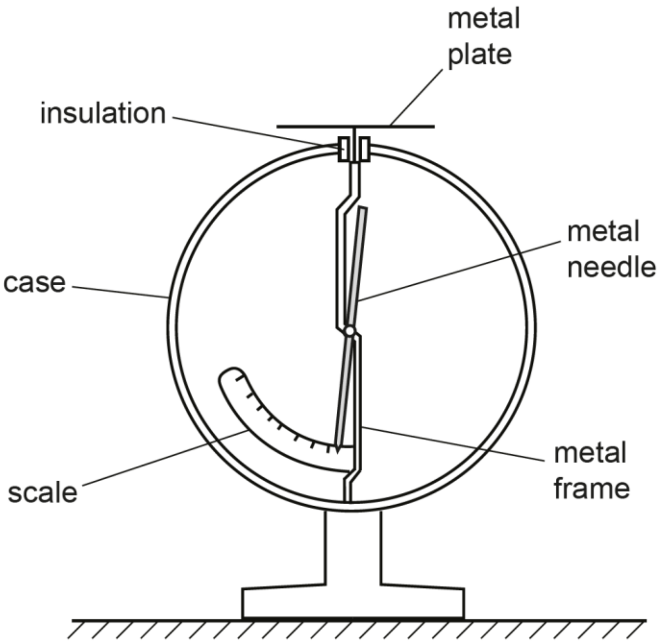
A significant minority incorrectly calculated the total energy stored for wax despite correctly calculating for each stage of the process. The most common error in such responses was subtracting one of the values rather than adding all three.

Other common mistakes were using incorrect powers of ten from prefixes, incorrect temperature changes or transposing data for different stages.

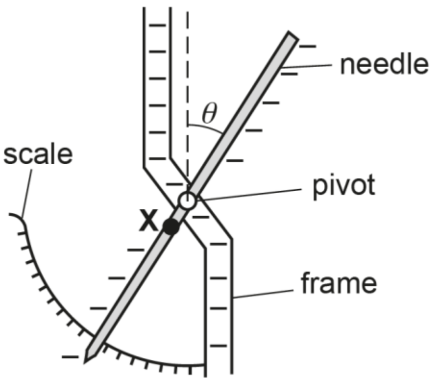
Question 4 (a)

4 An electroscope is an instrument used to measure electric charge.

The diagram shows one type of electroscope.



The diagram below shows the needle of the electroscope when it is negatively charged. The centre of mass, **X**, of the needle has been marked on the diagram.



(a) Suggest why the centre of mass of the needle is a **short** distance **below** the pivot.

....

....

....

.... **[2]**

Many candidates appeared to find the context of this question difficult or gave answers which were insufficient for credit. A common insufficient response was saying that it allowed the needle to rest downwards without specifying vertically.

Some candidates made good use of the diagram by referring to the labelled angle.

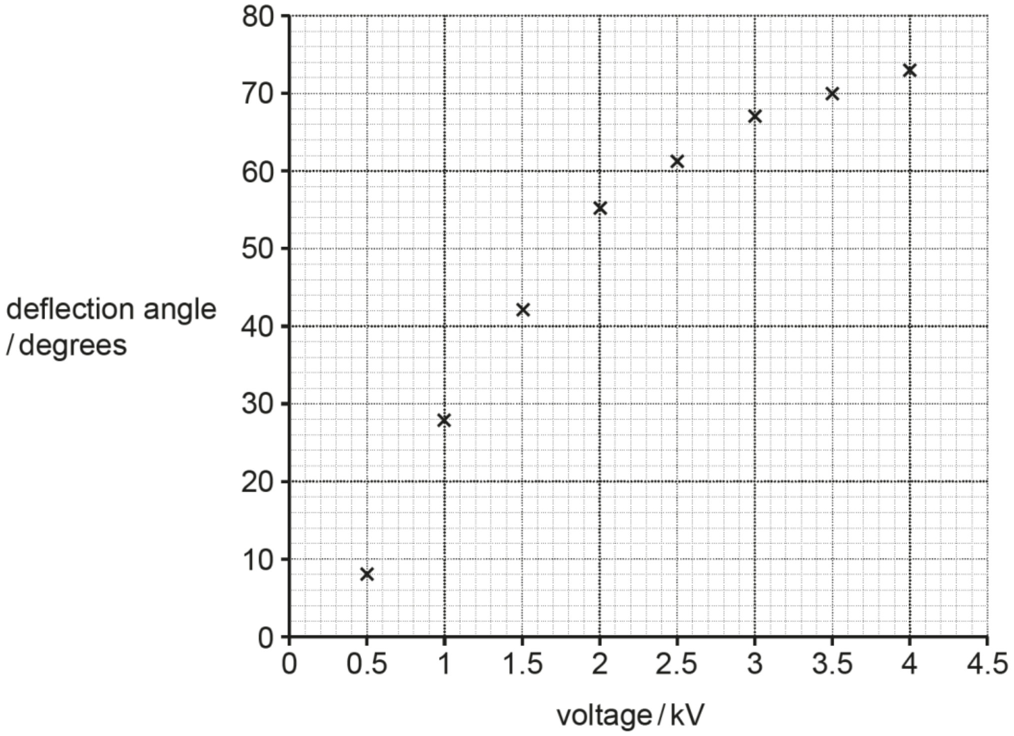
Very few candidates attempted to discuss the sensitivity of instruments. Those that did often gave long descriptive responses rather than making using of appropriate terminology.

Question 4 (b) (i)

(b) A student charges the electroscope by connecting the metal plate to the negative terminal of a high voltage power supply.

They record the deflection angle of the needle for a range of values of the voltage measured using a voltmeter.

Their results are shown in the graph below.



(i) The student concludes that the voltmeter has a zero error of 300 V.

Explain their reasoning.

....

.... **[1]**

Candidates who drew the curved line of best fit usually made relevant comments allowing the mark to be gained.

A minority of candidates incorrectly drew a straight line of best fit or described what a zero error would look like on a voltmeter rather than linking the graph to the conclusion.

Many candidates drew no line of best fit or attempted to make it pass through the origin. Such responses usually resulted in no marks being gained as it was not possible for candidates to evidence the voltage at zero deflection.

A small minority referred to no readings being taken below 0.5 kV which was not required to draw the conclusion.

Assessment for learning

Candidates may benefit from being given the opportunity to extrapolate data from lines of best fit and to state what assumptions they make when doing so.

Question 4 (b) (ii)

(ii) The capacitance of the electroscope is 20 pF.

Estimate the number of electrons stored on the electroscope when the deflection angle is 45°.

number of electrons = ... **[4]**

Many candidates gained 3 marks for this question for correctly using the $Q = VC$ formula with data read from the graph. Very few candidates gained all 4 marks usually for one of the reasons identified below.

Common mistakes

- incorrect read off for the voltage at 45°
- not correcting for the zero error
- using an incorrect power of ten for pF.

Question 5 (a)

5 To control insect populations, sterilised male insects can be released into the wild.

They mate with females, who then produce no offspring, reducing the future population.

Sterilisation can be carried out using ionising radiation. The insects are placed in a canister about 10 cm across and then deliberately exposed to a known dose of ionising radiation.

(a) Suggest why exposing an insect to ionising radiation may cause it to become infertile.

....

.... **[1]**

Most candidates were able to gain credit for stating that ionising radiation damages DNA or cells.

Question 5 (b) (i)

(b) Both gamma rays and X-rays can be used to sterilise the insects.

(i) Suggest why alpha radiation is **not** suitable for irradiating large numbers of insects.

....

....

....

.... **[2]**

Candidates who did well on this question were able to clearly state a property of alpha radiation and then link that property to the context.

A number of responses were vague or confused, for example mixing and matching properties and consequences or stating that alpha can't get through paper. A significant minority gave contradictory properties stating, for example, that alpha was weakly ionising and short range.

Some candidates described why X-rays or gamma were more suitable rather than addressing their response to alpha or gave a consequence which simply restated the stem of the question.

Question 5 (b) (ii)*

(ii)* The sterilisation process may need to be carried out in laboratories that do not otherwise make use of ionising radiation.

Discuss the advantages and disadvantages of using gamma rays rather than X-rays for this purpose, including:

- descriptions of how gamma rays and X-rays are produced
- a comparison of any practical considerations relating to their use, including safety.

You may ignore any financial considerations.

....

....

....

....

....

.... **[6]**

This Level of Response produced the full range of marks with the majority of candidates gaining Level 1 or 2. The question stem clearly referred to the context of irradiating insects but many candidates gave descriptions of gamma and X-ray use and dangers related to people in clinical settings.

Candidates were able to describe X-ray production well and these descriptions were often clear and detailed.

Gamma production was less well described with the majority not referring to radioactive decay but only annihilation of particle-antiparticle pairs which was not suitable for the context. Many candidates referred to injecting individual insects with radioactive beta plus tracers despite the context of irradiating them in canisters seen in parts (a) and (b) (i). Weak gamma discussions or lack of attention to the context often resulted in many responses gaining Level 2 instead of Level 3.

Many candidates attempted to discuss differences between ionisation and penetration properties rather than focussing on the practical considerations such as being able to turn X-ray machines off, radioactive sources not requiring power supplies, etc.

Safety considerations were generally well discussed with the highest scoring responses often referring to exposure time as well as storage and shielding.

Assessment for learning

Centres could prepare candidates for Level of Response questions by asking groups of students to give answers for generic questions, for example 'describe methods of gamma ray production' and then introducing a context and asking students to decide which parts of their response would be relevant to the scenario and why.

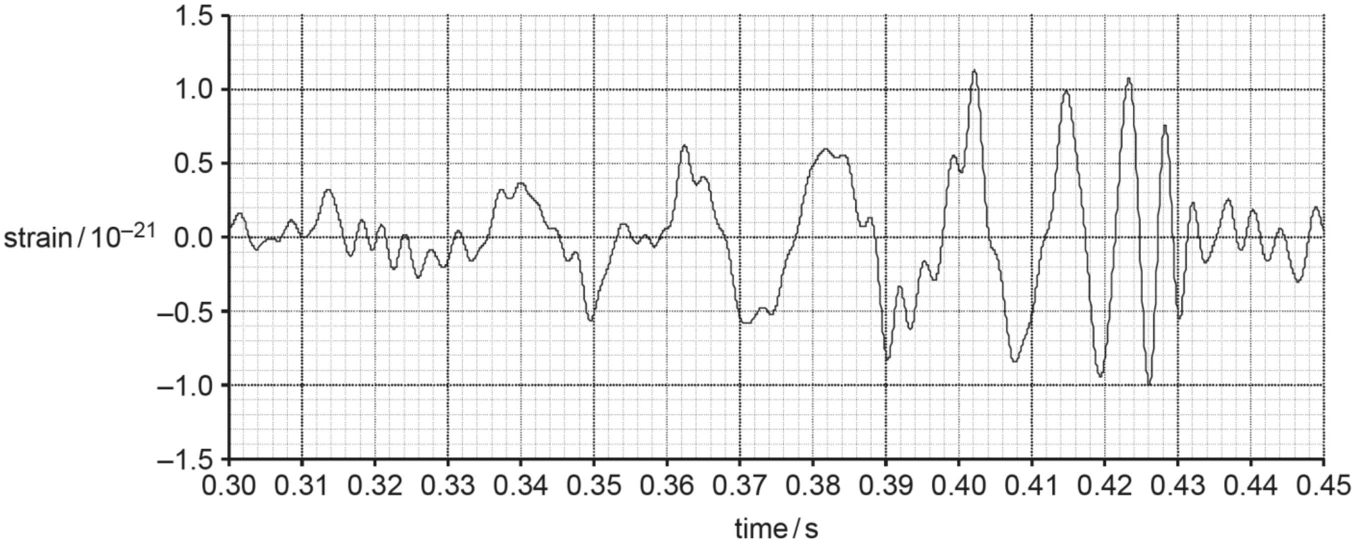
A key skill with context-based questions is deciding what to leave out from an answer as well as knowing what to include.

Question 6 (a) (i)

6 Gravitational waves are disturbances in space-time that are produced by violent astrophysical events.

(a) They are detected by measuring the change in length of a detector as the wave passes through. The change in length is reported as a strain.

The graph shows the variation in time of the strain due to the gravitational waves emitted by the collision of two black holes.



(i) Define **strain**.

....

.... **[1]**

Most responses gained this mark. Many candidates used 'over' when they meant 'divided by' which was condoned when the remainder of the answer was clear.

Question 6 (a) (ii)

(ii) The maximum strain shown on the graph is approximately 10^{-21}.

Calculate the force that would produce the same strain in a copper wire of diameter 2 mm.

Young modulus of copper = 130 GPa

force = ... N **[3]**

Most candidates gained 3 marks on this question.

Common mistakes

- using an incorrect power of ten for GPa
- using the value for diameter as a radius when calculating area
- dividing (Young's modulus × area) by strain.

Question 6 (a) (iii)

(iii) By considering the answer to **(ii)**, suggest why it is very difficult to detect the strain caused by gravitational waves.

....

....

....

.... **[2]**

Most candidates gained a mark for recognising that the values were very small. The majority of candidates referred to issues with instrumentation which did not gain credit.

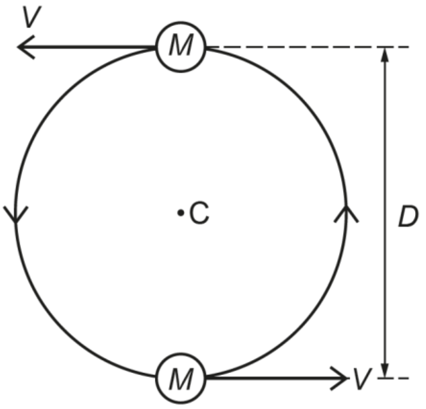
Very few candidates gained the second mark for referring to the issue in distinguishing these signals from those caused by other forces.

Question 6 (b) (i)

(b) In this part of the question you will use Newtonian physics to estimate the power output of the black hole collision.

The diagram shows two identical black holes, each of mass *M*, orbiting each other with period T.

Prior to colliding, the black holes move at speed *V* in identical circular orbits of diameter *D* about the central point C.



(i) Write down an expression for the gravitational force, *F*, acting between the black holes in terms of *M*, *D* and the universal gravitational constant, *G*.

F = ... **[1]**

Candidates who realised that the separation D should be used instead of D/2 or r often gained the mark.

Question 6 (b) (ii)

(ii) The total orbital energy, E, of the black holes is the sum of their kinetic energy and gravitational potential energy. Show that E is given by the expression:

$E = k\,(\pi^2 G^2 M^5)^{1/3}\,(1/T^{2/3})$

where k is a numerical constant.

....

....

....

....

....

.... **[3]**

This derivation was designed to challenge the highest scoring candidates although the first two marking points were accessible to students across the mark range.

Common issues

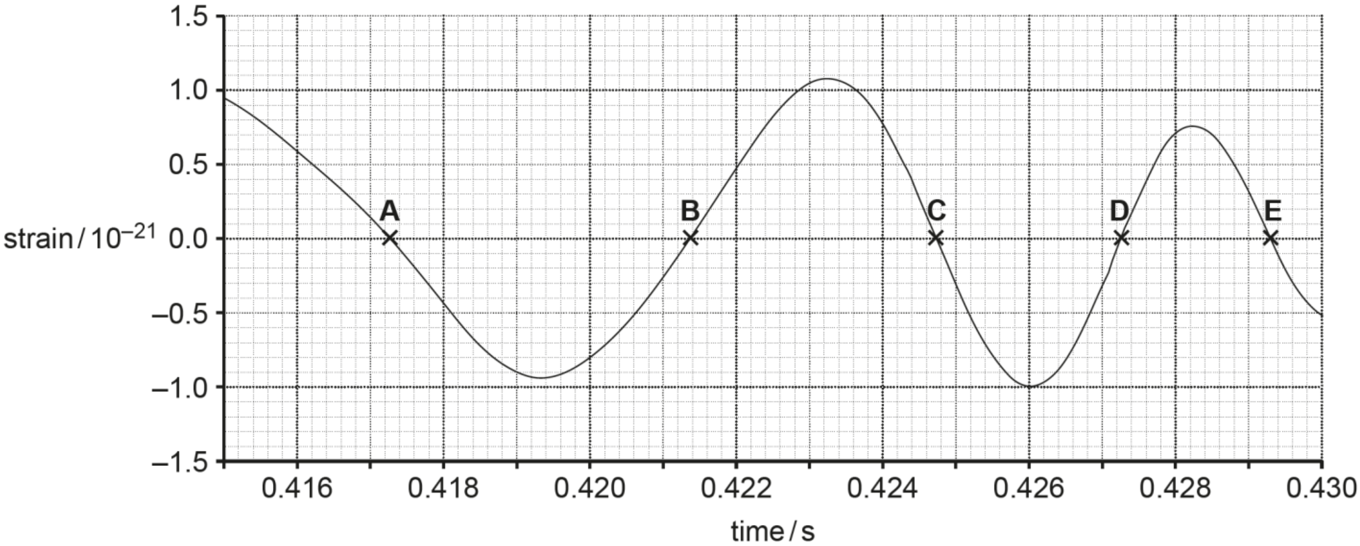
- omitting the – sign from GPE
- using r instead of D in equations
- attempting to use Kepler's laws rather than gravitational potential energy and kinetic energy equations.

Question 6 (b) (iii)

(iii) The graph below shows detail from the graph in **(a)**.

The black holes spiral towards one another before colliding. As they do so their orbit period decreases.

The orbit period is equal to the period of the gravitational waves.



By considering the time periods **AC** and **CE**, estimate the orbital energy lost by the black holes between these two orbits.

Use k $(\pi^2 G^2 M^5)^{1/3} = -2.04 \times 10^{46}$

energy lost = ... J **[3]**

Many candidates were able to gain at least 2 marks on this question. Weaker responses were characterised by inaccurate read offs from the graph, not just values but also selecting incorrect sections, for example AB instead of AC.

Some candidates incorrectly substituted the difference between the time periods into the equation for orbital energy rather than calculating two values of orbital energy and then finding the difference.

Exemplar 3

Use k $(\pi^2 G^2 M^5)^{1/3} = -2.04 \times 10^{46}$

$AC = 0.4247 - 0.4173$
$= 7.4 \times 10^{-3}$

$E = (-2.04 \times 10^{46}) \left(\frac{1}{(7.4 \times 10^{-3})^{\frac{2}{3}}} \right)$
$= -5.372 \times 10^{47}$ J

$CE = 0.4293 - 0.4247$
$= 4.6 \times 10^{-3}$

$E = (-2.04 \times 10^{46}) \left(\frac{1}{(4.6 \times 10^{-3})^{2/3}} \right)$
$= -7.3755.. \times 10^{47}$

$(7.37.. - 5.37..) \times 10^{47}$
$= 2.0035.. \times 10^{47}$

energy lost = 2.00×10^{47} J **[3]**

This response shows a well laid out calculation where it is clear what is being evaluated at each step.

Question 6 (iv)

(iv) By considering times **B** and **D**, use your answer to **(iii)** to estimate the power radiated as gravitational waves in this time interval.

power = ... W **[2]**

This was a relatively simple calculation at the end of the paper and many candidates who attempted this question gained at least 1 mark. Less successful responses attempted to calculate a new value for orbital energy despite being instructed to use their answer from part (b) (iii) or used an incorrect period from the graph.

Copyright information

Supporting you

Teach Cambridge

Make sure you visit our secure website **Teach Cambridge** to find the full range of resources and support for the subjects you teach. This includes secure materials such as set assignments and exemplars, online and on-demand training.

Don't have access? If your school or college teaches any OCR qualifications, please contact your exams officer. You can forward them this link to help get you started.

Reviews of marking

If any of your students' results are not as expected, you may wish to consider one of our post-results services. For full information about the options available visit the OCR website.

Access to Scripts

We've made it easier for Exams Officers to download copies of your candidates' completed papers or 'scripts'. Your centre can use these scripts to decide whether to request a review of marking and to support teaching and learning.

Our free, on-demand service, Access to Scripts is available via our single sign-on service, My Cambridge. Step-by-step instructions are on our website.

Keep up-to-date

We send a monthly bulletin to tell you about important updates. You can also sign up for your subject specific updates. If you haven't already, sign up here.

OCR Professional Development

Attend one of our popular professional development courses to hear directly from a senior assessor or drop in to a Q&A session. Most of our courses are delivered live via an online platform, so you can attend from any location.

Please find details for all our courses for your subject on **Teach Cambridge**. You'll also find links to our online courses on NEA marking and support.

Signed up for ExamBuilder?

ExamBuilder is the exam paper builder platform for a range of our qualifications. Find out more.

Free for all OCR centres with an Interchange account, it allows unlimited users per centre. We require an Interchange username to verify your centre's users for ExamBuilder.

If you do not have an Interchange account, please contact your centre administrator (usually the Exams Officer) to request a username.

Once you have an Interchange username, use the form on this page to sign up for ExamBuilder, or ask an existing user at your centre to create an ExamBuilder account for you.

Active Results

Review students' exam performance with our free online results analysis tool. It is available for all GCSEs, AS and A Levels and Cambridge Nationals (examined units only).

Find out more.

Tell us what you think

Your feedback plays an important role in how we develop, market, support and resource qualifications now and into the future. We want you and your students to enjoy and get the best out of our qualifications and resources, but to do that we need your honest opinions to tell us whether we're on the right track or not.

You can email your thoughts to resources.feedback@ocr.org.uk or visit our feedback page to learn more about how you can help us improve our resources.

Designing and testing in collaboration with you and your students

Helping young people develop an ethical view of the world

Equality, diversity, inclusion and belonging (EDIB) are part of everything we do

---

Contact the team at:

01223 553998

ocr.org.uk

To stay up to date with all the relevant news about our qualifications, register for email updates at ocr.org.uk/updates

Visit our Online Support Centre at support.ocr.org.uk