Qualification Accredited

OCR
Oxford Cambridge and RSA

A LEVEL

Examiners' report

PHYSICS B (ADVANCING PHYSICS)

H557

For first teaching in 2015

H557/01 Summer 2022 series

Contents

Paper 1 series overview 4
Section A overview 5
Question 4 5
Question 5 6
Question 8 7
Question 9 8
Question 10 8
Question 18 9
Question 25 9
Question 28 10
Question 29 11
Section B overview 12
Question 31 (a) 12
Question 31 (b) 12
Question 32 (a) 13
Question 32 (b) 14
Question 34 (a) 15
Question 34 (b) 17
Section C overview 18
Question 36 (a) 18
Question 36 (b) 20
Question 36 (c) (i) 21
Question 36 (c) (ii) 22
Question 36 (c) (iii) 22
Question 36 (c) (iv) 23
Question 37 (b) (ii)* 24
Question 38 (a)* 26
Question 39 (a) 28
Question 39 (b) and (c) 29
Question 40 (c) (ii) 30

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 answers are 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 OCR.

Advance Information for Summer 2022 assessments

To support student revision, advance information was published about the focus of exams for Summer 2022 assessments. Advance information was available for most GCSE, AS and A Level subjects, Core Maths, FSMQ, and Cambridge Nationals Information Technologies. You can find more information on our website.

Paper 1 series overview

H557/01 'Fundamentals of Physics' component is worth 110 marks and assesses specification content from across all the teaching modules.

Section A consisted of 30 multiple choice questions, each worth one mark.

Section B included five structured short answer questions worth a total of 21 marks. Each question typically examined a single context. To do well on this section candidates needed to be comfortable answering questions that involved problem-solving and practical-based questions as well as performing calculations.

Section C consisted of five questions worth 59 marks in total. In addition to some short answer questions there were two opportunities for extended writing (Questions 37 (b) (ii) and 38 (a) worth 6 marks each.

Candidates who did well on this paper generally did the following:	Candidates who did less well on this paper generally did the following:
• attempted all the multiple choice questions in Section A • performed the calculations required in Section B well • articulated the assumptions made when making calculations, for example when calculating the height reached by a projectile in Question 31 (b) • applied their knowledge to experimental situations, for example the refraction experiment in Question 36, and were able to use graphical techniques to estimate uncertainty in results • used sound physics, covering fully the required strands identified in the question, in a logical structure such as for the extended response Questions 37 (b) (ii) and 38 (a) • were able to find the energy released in the fission reaction described in Question 39 before going on to calculate the mass of Uranium required to produce a given power output.	• found it difficult to explain physics concepts with the required depth and clarity – for example in Question 32 (b) where they were asked to explain the appearance of a bright line in a diffraction experiment • made arithmetic errors, for example, quoting 157.89 as 157 for the answer to Question 37 (a) (i) • drew lines for Question 36 (c) (iv) that did not represent the maximum or minimum gradients - often joining the tips of the error bars • covered just one of the required strands for the extended response Questions 37 (b) (ii) and 38 (a) and lacked structure in their reasoning.

There was little evidence that any time constraints had led to a candidate underperforming, with most candidates answering the final question well, although few were able to answer the final part of Question 40 successfully.

Section A overview

This section consisted of 30 multiple choice questions, each worth one mark. Candidates performed very well on Questions 8, 11, 14, 16 and 29. Questions 4, 9, 26 and 28 were most challenging.

Question 4

4 The variation of a signal without noise is 140 mV. The maximum number of useful bits to sample the same signal **with** noise is 3.

What is the noise variation in the signal?

A 18 mV

B 20 mV

C 47 mV

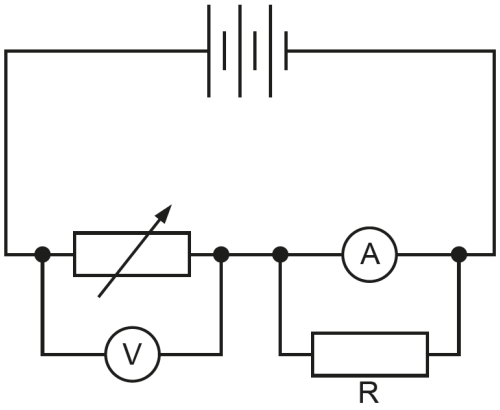
D 70 mV

Your answer ☐ **[1]**

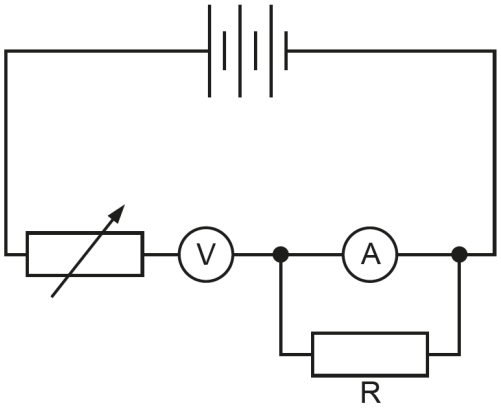
Some candidates incorrectly divided the signal without noise value of 140 mV by 8 bits to give an answer of 17.5 mV, selecting response A, rather than adding the noise value to give V_{total} before calculating using the formula given in the data booklet.

Question 5

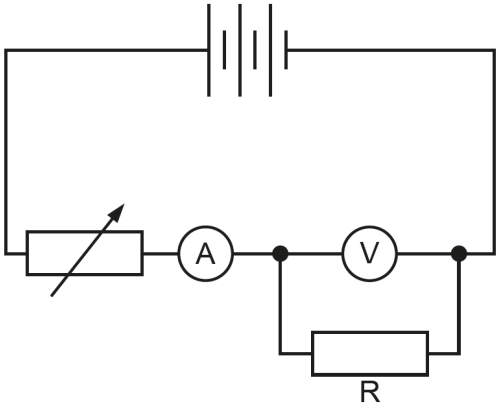
5 A student is asked to construct a circuit to investigate the electrical characteristics of a resistor R. Which is the correct circuit?



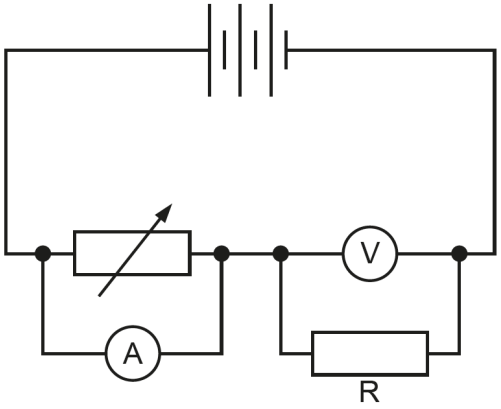
A



B



C



D

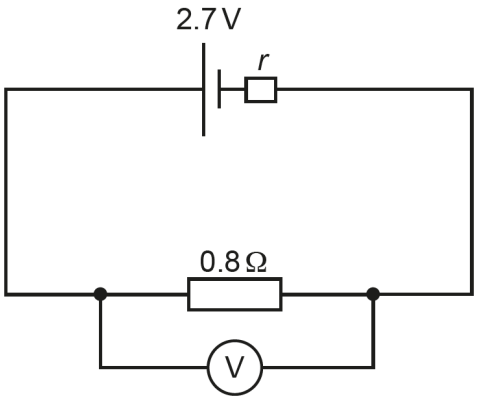
Your answer ☐ **[1]**

A number of candidates were confused by the unusual positioning of the voltmeter in the correct diagram, C, and incorrectly selected A which appears to have the voltmeter connected in parallel as they expected.

Question 8

The following information is for use in questions **8** and **9**.

8 The emf of the cell in the circuit shown is 2.7 V. The high resistance voltmeter reads 2.4 V.



What is the internal resistance *r* of the cell?

A 0.1 Ω

B 0.3 Ω

C 1.6 Ω

D 1.9 Ω

Your answer [ ] **[1]**

Most candidates could correctly calculate the current as 3 Amps before manipulating the formula $V = \mathcal{E} - Ir$ in order to correctly select 0.1 Ω as the correct internal resistance. A common error made by candidates was to subtract 2.4 V from 2.7 V without going on to divide by the current.

Question 9

9 What is the power transferred in the cell in the circuit shown?

A 0.1 W

B 0.9 W

C 8.1 W

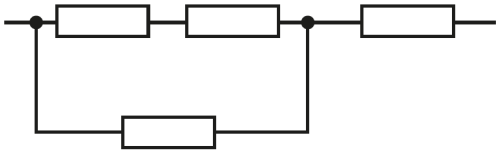
D 9.1 W

Your answer ☐ **[1]**

Generally, candidates substituted the current they had calculated in Question 8 into the formula $P = IV$ to correctly identify the power transferred as 0.9 W. Some incorrectly selected C, 8.1 W, as a result of multiplying the current by the e.m.f. value of 2.7.

Question 10

10 The diagram shows a network of four conductors, each with conductance 0.2 S.



What is the total conductance of the arrangement?

A 0.12 S

B 0.27 S

C 0.30 S

D 0.53 S

Your answer ☐ **[1]**

Most candidates completed this analysis well. There was some evidence of a lack of familiarity with the formulae for conductance in series and parallel as a number of candidates took a convoluted route; this involved converting conductance to resistance before analysing the arrangement and then going on to convert back to conductance.

Question 18

18 A proton is accelerated through 12.4 kV and makes a direct collision with a silver ($^{107}_{47}$Ag) nucleus. What is the closest distance the proton can approach the nucleus?

A 5.5×10^{-15} m

B 1.24×10^{-14} m

C 5.4×10^{-12} m

D 1.24×10^{-11} m

Your answer ☐ **[1]**

A common error in response to this question was to use 107 as the number of protons in the silver nucleus leading to an incorrect evaluation of the closest distance of approach as 1.24×10^{-11} m.

Question 25

25 The decay equation of strontium-90 is:

$$^{90}_{38}\text{Sr} \longrightarrow {}^{90}_{39}\text{Y} + {}^{0}_{-1}\text{e} + {}^{0}_{0}\bar{\nu}.$$

Which of the following quantities is **not** conserved in the decay?

A charge

B lepton number

C momentum

D mass

Your answer ☐ **[1]**

A common error was to pick momentum as the quantity not conserved in the decay of strontium-90, suggesting that candidates are familiar with using the other terms in the context of nuclear equations and selected momentum as appearing to be 'the odd one out'.

Question 28

28 When the capacitor is fully charged, the switch is moved to position **Y**.

What is the energy stored on the capacitor after 10 s of discharge?

A 0.013 J

B 0.023 J

C 0.026 J

D 0.046 J

Your answer [ ] **[1]**

Less than half of candidates were successful in this multi-step calculation. Where they were, candidates' working showed that they were able to calculate Q_0 from the values of capacitance and voltage given in the question before going on to work out the value of Q after 10 seconds using the formula $Q = Q_0e^{-t/RC}$. Some candidates got stuck at this point, selecting A as the closest numerical value to their unfinished calculation, but those that were successful went on to calculate the energy from $E = ½Q^2/C$.

Assessment for learning

Most of the successful candidates showed their working alongside the questions in Section A allowing them to perform multi-step calculations well.

Question 29

29 Here are some data about an ideal transformer:

input power: 36 W
primary current: 4.8 A
number of turns on primary coil: 2000
secondary voltage: 60 V

What is the number of turns on the secondary coil?

A 1200

B 3300

C 16 000

D 25 000

Your answer ☐ **[1]**

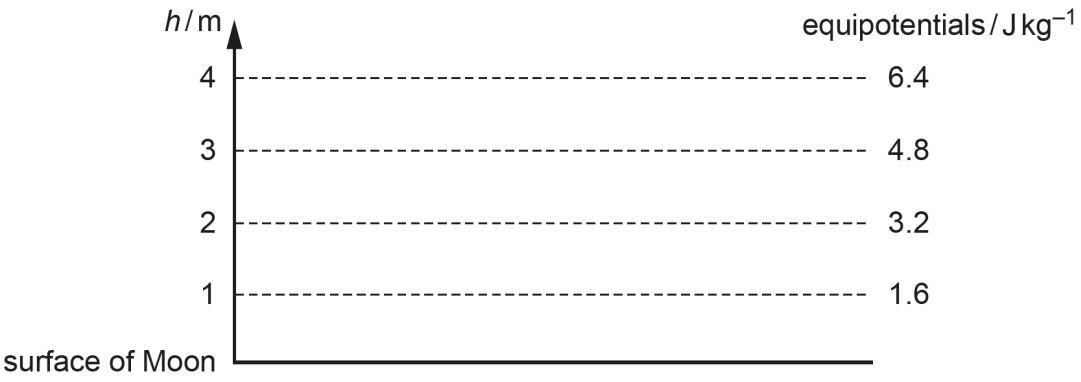
Many candidates appeared unfamiliar with transformer equations. Those that were, and showed any working, calculated the primary voltage as 7.5 V and used the voltage ratio of 60/7.5 = 8 to identify the number of turns on the secondary coil as 16 000.

Section B overview

This section included five structured short answer questions worth a total of 21 marks.

Question 31 (a)

31 The diagram shows gravitational equipotentials near the surface of the Moon.



(a) How does the diagram show that the gravitational field is uniform on this scale?

.....

..... **[1]**

Most candidates were able to identify that the equipotentials are equally spaced to gain credit. Only the least successful candidates gave answers that were not sufficient for credit – for example "the lines are straight"

Question 31 (b)

(b) Calculate the maximum height reached by a projectile that is launched from the surface of the Moon with a vertical velocity of 20.0 m s^{-1}. State any assumptions that you make.

Assumptions:

.....

.....

maximum height = ... m **[2]**

This question was well answered by most candidates. Those that could not complete the calculation did not realise that the value for *g* could be identified from the diagram.

Question 32 (a)

32 **Fig. 32.1** shows plane waves diffracted when they pass through a slit.

(a) Complete **Fig. 32.2** to show diffraction of waves of the same wavelength through a narrower slit.

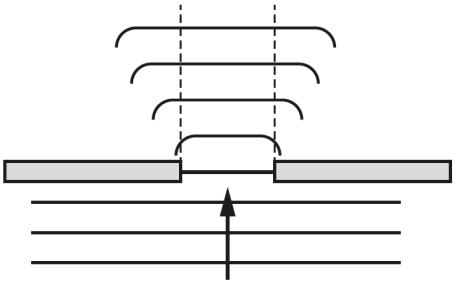


Fig. 32.1

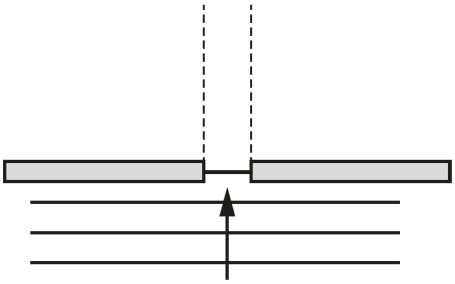


Fig. 32.2

[2]

Candidates usually gained at least one mark although few gained both. Diagrams need to be drawn with clarity to show key features that examiners are looking for in the response – in this case constant wavelength and symmetry of spreading.

Missing part-questions where candidates are required to complete a diagram

This question was often omitted, as was Question 40 (b) (i). Candidates should take care to make sure they do not rush and inadvertently miss questions that require diagrams to be completed.

Question 32 (b)

(b) **Fig. 32.3** shows wavefronts after passing through a grating of many narrow slits.

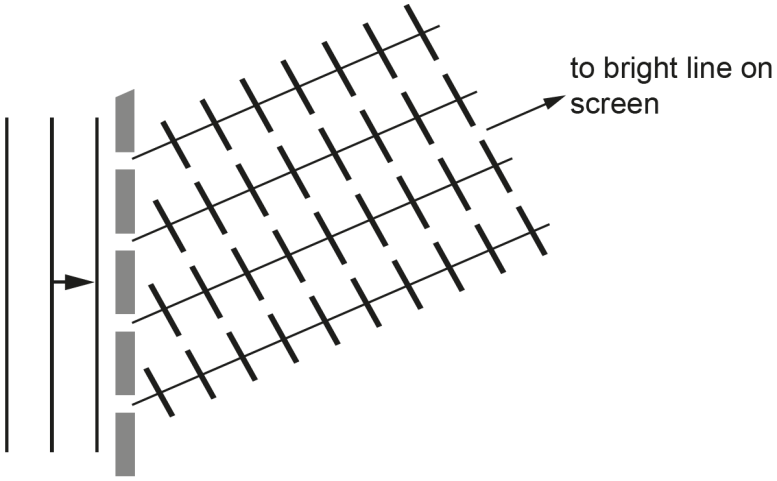


Fig. 32.3

Use the diagram to explain why there is a bright line on the screen in the direction shown.

.....

.....

.....

..... **[2]**

Candidates who answered this question well were clear that there are two aspects to the explanation – linking the idea that waves from adjacent slits have a path difference of one wavelength, leading to the wavefronts arriving in phase. Less successful candidates confused the concepts of path difference and phase difference, leading to a lack of clarity in their responses. Some candidates gave articulate responses involving reference to integer multiples of wavelength for full credit. References to key terms like "interference" and "superposition" needed to have greater clarity – for example "constructive interference" to gain credit.

Misconception

Candidates needed to understand the difference between path difference and phase difference to answer this question successfully.

Question 34 (a)

34 **Fig. 34.1** shows the relationship between charge Q on a capacitor and the p.d. V across the capacitor.

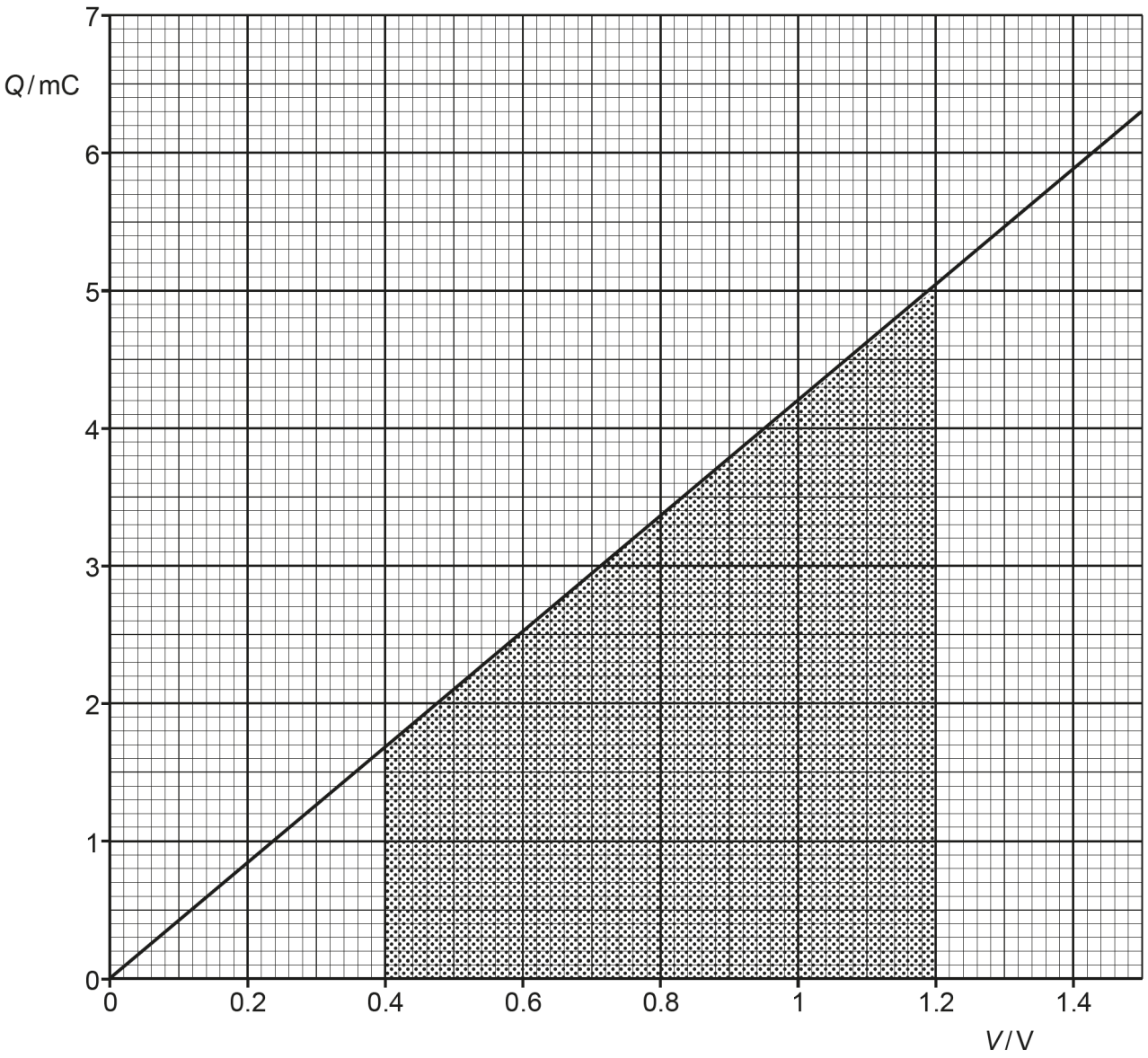


Fig. 34.1

(a) Explain the significance of the shaded area of the graph and the significance of the gradient of the graph. Link your explanations to the relevant equations.

Shaded area: .....

.....

.....

.....

Gradient: .....

.....

.....

[3]

Some of the responses were concise, clearly linking the concepts of energy transferred and capacitance to the shaded area and gradient respectively. Others needed to make sure that the explanations linked to the relevant equations – particularly for the shaded area for full credit.

Question 34 (b)

(b) A simplified circuit is shown in **Fig. 34.2**.

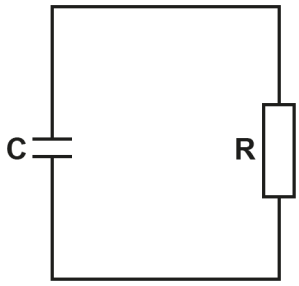


Fig. 34.2

Explain how the equation $\frac{\Delta Q}{\Delta t} = -\frac{Q}{RC}$ can be used to find the charge remaining on the capacitor after time t by performing repeated calculations or iterations. You may include a diagram in your answer.

.....

.....

..... **[3]**

Many candidates demonstrated a familiarity with the iterative approach, correctly rearranging the equation to show $\Delta Q = -\Delta t \times Q/RC$ and explaining how to use this to find the new value of Q after a small time interval. Candidates often used a table with column headings effectively to show how to calculate each iteration. Very few examples of flow charts were seen – where they were used they brought clarity to candidate's explanations.

Those candidates unfamiliar with the approach described in the question often tried, unsuccessfully, to use $Q = Q_0 e^{-t/RC}$.

Section C overview

This section consisted of six questions worth 59 marks in total.

Question 36 (a)

36 In 1690, the Dutch thinker Christiaan Huygens suggested a wave model of light. **Fig. 36.1** is a simplified version of one of Huygens' diagrams that explains the refraction of light using his wave model. The speed of the waves c_1 in medium 1 is lower than the speed c_2 in medium 2.

Fig. 36.1 shows two successive wavefronts entering medium 2 from medium 1. Wavefront BB' strikes the boundary time Δt **after** wavefront AA'. In time Δt, the wavefront travels distance $c_1 \Delta t$ in medium 1 and the smaller distance $c_2 \Delta t$ in medium 2. **Fig 36.2** represents the same situation as a ray diagram.

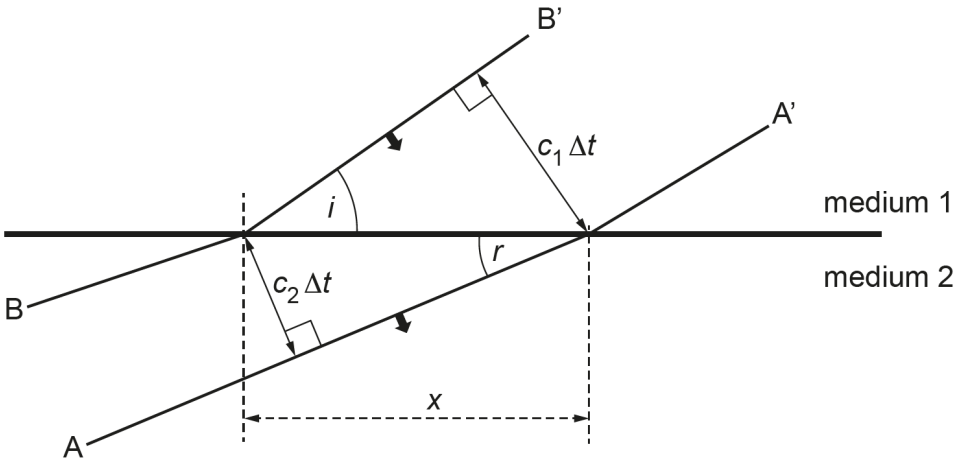


Fig. 36.1

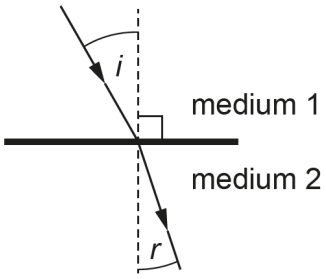


Fig. 36.2

(a) Use information from the diagrams to show that $\frac{\sin i}{\sin r} = \frac{c_1}{c_2}$.

[1]

Most candidates found this question straightforward but some omitted Δt, so could not gain full marks as they did not fully 'show that' as required by the question.

Erratum notice

Oxford Cambridge and RSA

ERRATUM NOTICE

Thursday 26 May 2022 – Afternoon

A Level Physics B (Advanced Physics)

H557/01 Fundamentals of Physics

FOR THE ATTENTION OF THE EXAMS OFFICER

To be opened on the day of the exam

Instructions to invigilators:

Before the start of the exam, please read the following notice out **twice** to candidates:

Turn to **page 24** of the **question paper** and look at **question 36**.

In the third line, cross out the word 'lower' and replace with 'higher'

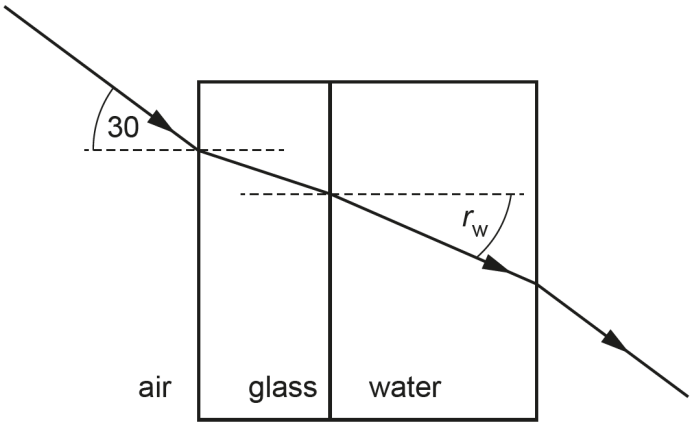
The sentence should now read:

'The speed of the waves c_1 in medium 1 is higher than the speed c_2 in medium 2.'

If you have any queries, please call our Customer Support Centre on 01223 553998 or email general.qualifications@ocr.org.uk

Question 36 (b)

(b) A beam of monochromatic light is incident on the side of a glass cube containing water. Use **Fig. 36.3** and the data given to calculate the angle of refraction in the water, r_w.



Angle of incidence = 30°

$c_{air} = 3.00 \times 10^8\,m\,s^{-1}$

$c_{glass} = 1.99 \times 10^8\,m\,s^{-1}$

$c_{water} = 2.26 \times 10^8\,m\,s^{-1}$

Fig. 36.3 not to scale

angle of refraction in water = ... °

[2]

This part was well answered by most candidates, although some rounded incorrectly in intermediate steps of the calculation leading to incorrect answers.

Question 36 (c) (i)

(c) A student determines the refractive index using the apparatus shown in **Fig. 36.4**.

A graph of the experimental results is shown in **Fig. 36.5**.

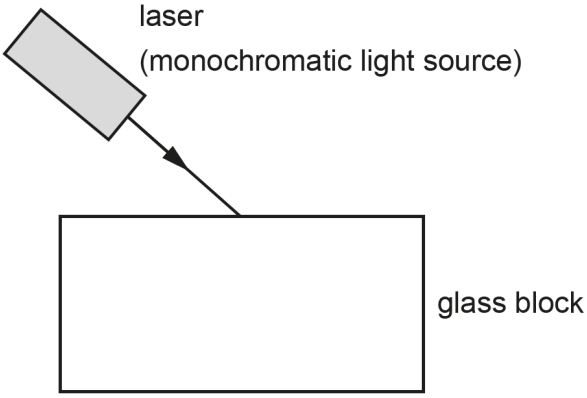
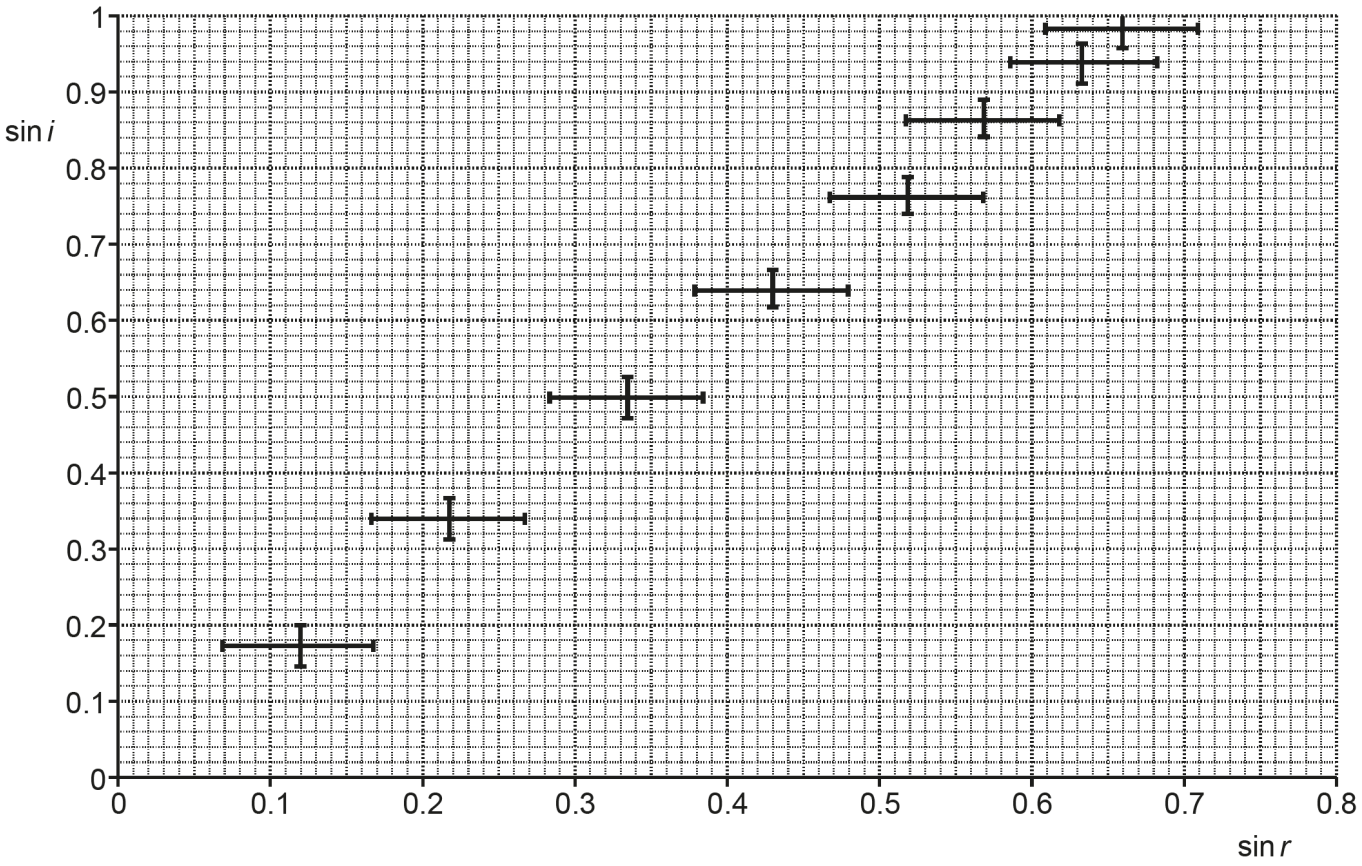


Fig. 36.4



(i) Suggest why a monochromatic light source is used in the experiment.

.....

..... **[1]**

Many candidates correctly gained credit for explaining that different wavelengths refract through different angles in the glass. Where candidates defined or explained the term "monochromatic" they needed to expand on this further to gain the mark.

Misconception

Candidates should be aware that diffraction is a key term that cannot be used interchangeably to mean refraction.

Question 36 (c) (ii)

(ii) Suggest why the student estimated the uncertainty in sin *r* to be greater than the uncertainty in sin *i*.

.....

..... **[1]**

Relatively few candidates gained this mark - which was designed to be a low-level mark to achieve – as they wrote in general terms for example 'it is hard to measure in the glass block'; to be given the mark candidates needed to be clear why there is more uncertainty in the measurement.

Question 36 (c) (iii)

(iii) The student assumed a constant uncertainty in the sines of the angle. Suggest and explain why this is unlikely to be the case.

.....

.....

..... **[2]**

These high level marks were gained by very few candidates who were able to articulate the non-linear relationship between the angle and sine.

Question 36 (c) (iv)

(iv) The student calculated the value of the refractive index as 1.5.

Use the graph to estimate a value for the uncertainty in the result.

Explain your method.

refractive index of the glass block = 1.5 ± .....

Explanation: .....

.....

.....

[3]

This question provided good discrimination with many lower achieving candidates able to gain a mark for calculating one of the gradients. The highest achieving candidates were able to draw maximum and minimum gradients and calculate the difference between the two to estimate the uncertainty.

Question 37 (b) (ii)*

(ii)* The mass of the bullet train without passengers is 7.15×10^5 kg. When all the carriages are full it carries 1300 passengers.

Assuming that the accelerating force is constant, compare the initial acceleration of the train full of passengers with the acceleration of $1.9\,\text{km}\,\text{h}^{-1}\,\text{s}^{-1}$ of the empty train. Make all your estimates clear.

Describe and explain how carrying passengers will affect the power required to maintain a speed of 300 km / h against the drag force from the air and suggest and explain how passing through a narrow tunnel might change the power required to maintain speed.

.....

.....

.....

.....

.....

..... **[6]**

To gain full marks, candidates were expected to give a clear explanation that covered all three strands in the question, i.e. comparison of the acceleration of the empty and full trains, comparison of the power required to maintain constant speed and the effect on the power required when travelling through a tunnel. Most candidates did attempt to cover all three aspects.

Exemplar 1

$F = 7.15 \times 10^5 \times \frac{1900}{3600} = 377361.1\,N$

mass of 1 human $\approx 70\,kg$ $70 \times 1300 = 91000\,kg$

$7.15 \times 10^5 + 91000 = 806000$

$\frac{F}{m} = a \quad \frac{377361.1}{806000} = 0.4681$

$0.47 \times 3600 = 1685\,m/h/s = 1.7\,kmh^{-1}s^{-1}$

The train accelerates less by $0.02\,kmh^{-1}s^{-1}$

This means that the train would need more power to push through the drag force and maintain a speed of 300 Km/h. When [6]

Additional answer space if required:

going through means that air cannot pass to the sides and instead is pushed forward increasing the drag force against the train meaning more power would be needed to push through

Exemplar 1 shows a response that has covered the first strand well by making an appropriate estimate for the mass of a passenger as approximately 70 kg and using this with the values given in the question to calculate and compare accelerations. The second strand contains a common misconception that the mass affects the force required to maintain the constant speed. The final strand is covered a little superficially but it does correctly state that the power would need to be increased to maintain the speed through the tunnel. The misconception limits the marks gained to a 'Level 2' response which is argued with a well-developed line of reasoning and logical structure so 4 marks were given.

Question 38 (a)*

38 This question is about the relationship between the volume *V* of a fixed mass of gas at constant pressure and the absolute temperature *T* of the gas. The relationship is often called Charles' Law.

(a)* Describe how you can use the apparatus shown in **Fig. 38.1** to determine a value for absolute zero (0 K) in degrees Celsius. Explain why it is necessary to assume that the diameter of the bore of the capillary tube is constant throughout its length.

Describe the sources of uncertainty in the experiment and explain how they can be reduced. Suggest why trapped air will not give an accurate value of absolute zero.

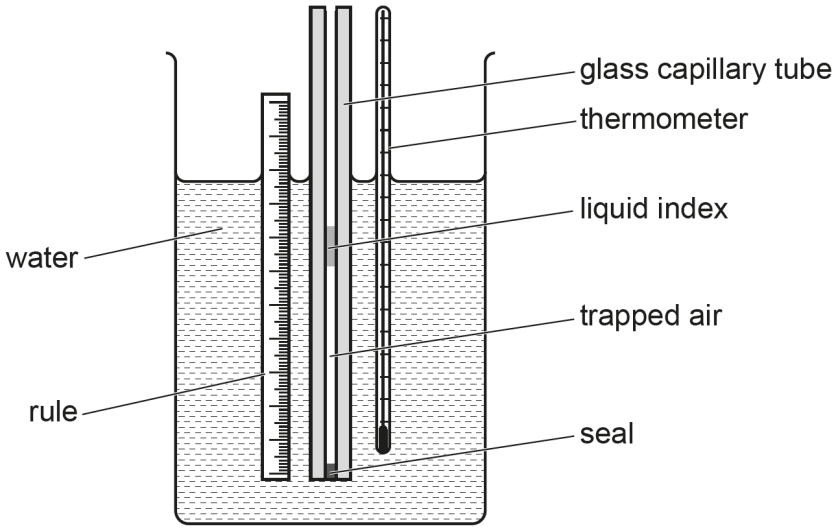


Fig. 38.1

.....

.....

.....

.....

.....

..... **[6]**

This question asked candidates to describe the experimental method that would be used with the apparatus, to explain the requirement for a uniform diameter capillary tube and to describe the sources of uncertainty

Exemplar 2

Fill beaker with near boiling water. Stir water to ensure it is on even temprature, and allow time for the trapped air to acclimatize. As the water cools, record the height of the trapped air for even increments, say every 5°c. As the temperature decreases, so too should the height. It is necessary to assume the diameter is constant, as you are assuming the capillary tube is a perfect cyllinder with Volume = $\pi r^2 h$. Multiply all your values for L (height of water) by πr^2 to get Volume, then plot Volume (y) against temprature (x). Absolute 0 is the ~~Value~~ or Value of the x intercept. One source of error is reading height. To avoid parallax error, [6]

ensure you keep eye level with the bottom of the liquid inder. Also, using a "taller" capillary tube will reduce % error in height as it will fall more. The trapped air will not give an accurate ~~ideal~~ value as it is not an ideal gas, so will not share energy uniformly.

In Exemplar 2, the candidate has covered all three strands successfully. There is a good overview of the experimental method and processing of results onto a graph to cover the key points of the first strand. A number of candidates omitted an explanation of the need for a constant bore of tube, but this response clearly explains the impact on volume if the diameter is not constant by linking $V = \pi r^2 h$. There is, finally, good coverage too of the final strand with attempts at explaining parallax error in reading the length of the column and the explanation that the trapped air is not an ideal gas. This response covers all strands well to be given a mark in the Level 3 response band and is written with a good logical and well-developed line of reasoning therefore the higher mark – 6 – was given.

Question 39 (a)

39 This question is about a possible method of extracting energy by nuclear fission of a uranium 234 nucleus.

(a) Explain what is meant by the 'binding energy' of a nucleus and describe how its value can be calculated from the mass of the nucleus and the values for the masses of the individual unbound protons and neutrons.

.....

.....

.....

..... **[2]**

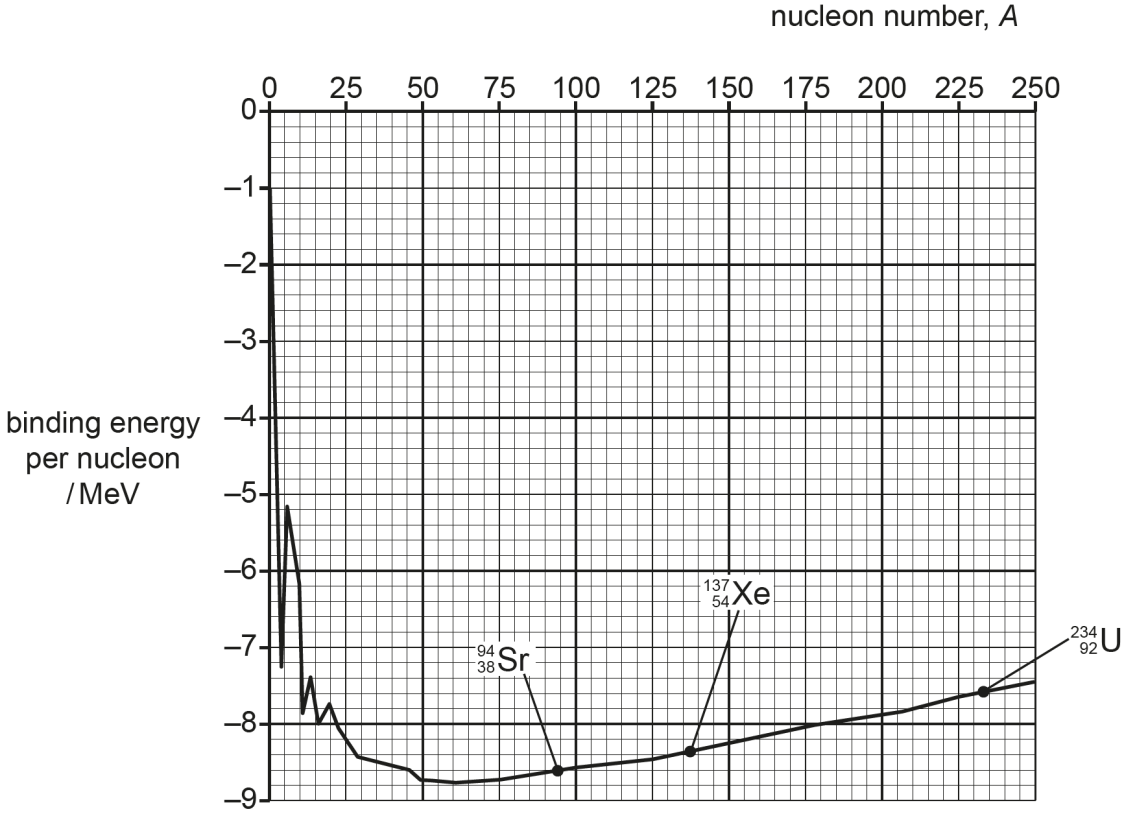
Most candidates gained the second mark for describing how to calculate the binding energy from the masses, although some responses were vague about how to use $E = mc^2$ in the calculation. Fewer candidates gained the first marking point for an explanation of binding energy.

Misconception

It was common for candidates to describe binding energy, incorrectly, as the "energy required to hold the nucleus together"

Question 39 (b) and (c)

(b) **Fig. 39.1** shows how the binding energy **per nucleon** varies with nucleon number.



(i) The fission reaction is

$$^{234}_{92}\text{U} \longrightarrow {}^{137}_{54}\text{Xe} + {}^{94}_{38}\text{Sr} + 3\,{}^{1}_{0}\text{n}$$

The binding energy of the U-234 nucleus is –1778 MeV.

Use the graph to show that the energy released in the fission reaction is about 200 MeV.

[2]

(ii) Calculate the mass of $^{234}_{92}$U that must undergo fission to produce a constant output of 1400 MW for one year.

mass of $^{234}_{92}$U atom = 3.89×10^{-25} kg.

1 year = 3.2×10^{7} s.

mass = ... kg **[2]**

(c) In a 'thorium' reactor, $^{234}_{92}U$ is produced when a neutron is captured by a $^{233}_{92}U$ nucleus.

The $^{233}_{92}U$ is produced from an isotope of thorium (Th) in the following stages

$$^{232}_{90}Th + {}^{1}_{0}n \longrightarrow {}^{233}_{90}Th \longrightarrow {}^{233}_{91}Pa + {}^{0}_{-1}e \longrightarrow {}^{233}_{92}U + {}^{0}_{-1}e.$$

Calculate the minimum mass of $^{233}_{91}Pa$ required to produce sufficient $^{234}_{92}U$ to produce an energy output of 1400 MJ in one second.

Explain why this is a minimum value.

half-life of $^{233}_{91}Pa$ = 1600 s.

mass of $^{233}_{91}Pa$ atom = 3.87×10^{-25} kg.

mass = ... kg

Explanation:

.....

.....

.....

[4]

Questions 39 (b) (ii) and 39 (c) expected candidates to use the answer from 39 (b) (i). Candidates could use their own calculated value, or the 'show that' value of 200 MeV. Errors carried forward were also allowed.

Assessment for learning

Some candidates omit the later parts of structured questions as they cannot do the first part so have no calculated value to use in the subsequent parts. Candidates should be aware that they can use the 'show that' value for these parts. They should also be encouraged to highlight the value given in a 'show that' question, as it may be the value they need for a later calculation that is not provided within that question – as is the case here with Question 39 (c).

Question 40 (c) (ii)

(ii) Show that the velocity of an electron accelerated through 50 kV is about 1.2×10^{8} m s^{-1}.

[4]

The highest achieving candidates were able to calculate the rest energy of the electron and go on to calculate the gamma factor and hence the velocity of the accelerated electron. Typically, candidates tried, incorrectly, to use the energy gained by an electron as eV and equate this to the kinetic energy of $\frac{1}{2}mv^2$.

Supporting you

Post-results services

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.

Keep up-to-date

We send a weekly roundup 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 CPD 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 on the relevant subject page on our website or visit OCR professional development.

Signed up for ExamBuilder?

ExamBuilder is the question builder platform for a range of our GCSE, A Level, Cambridge Nationals and Cambridge Technicals qualifications. Find out more.

ExamBuilder is **free for all OCR centres** with an Interchange account and gives you unlimited users per centre. We need an Interchange username to validate the identity of your centre's first user account for ExamBuilder.

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

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.

It allows you to:

- review and run analysis reports on exam performance
- analyse results at question and/or topic level
- compare your centre with OCR national averages
- identify trends across the centre
- facilitate effective planning and delivery of courses
- identify areas of the curriculum where students excel or struggle
- help pinpoint strengths and weaknesses of students and teaching departments.

Find out more.

Need to get in touch?

If you ever have any questions about OCR qualifications or services (including administration, logistics and teaching) please feel free to get in touch with our customer support centre.

Call us on
01223 553998

Alternatively, you can email us on
support@ocr.org.uk

For more information visit
ocr.org.uk/qualifications/resource-finder
ocr.org.uk
/ocrexams
/ocrexams
/company/ocr
/ocrexams

We really value your feedback

Click to send us an autogenerated email about this resource. Add comments if you want to. Let us know how we can improve this resource or what else you need. Your email address will not be used or shared for any marketing purposes.


I like this


I dislike this

Please note – web links are correct at date of publication but other websites may change over time. If you have any problems with a link you may want to navigate to that organisation's website for a direct search.