

IGCSE Physics

Paper 2

Unsolved Topical

Past Papers with Marking Schemes

All Variants

2014-2021

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PREFACE

Excellence in learning cannot be claimed without application of concepts in a dexterous way. In this regard one of the logical approach is to start in chunks; like chapter wise learning and applying the concept on exam based questions.

This booklet provides an opportunity to candidates to practice topic wise questions from previous years to the latest. Extensive working of Team MS Books has tried to take this booklet to perfection by collaborating with top of the line teachers.

We have added answer key / marks scheme at the end of each topic for the candidate to compare the his/her answer to the best.

MS Books strives to maintain actual spacing between consecutive questions and within options as per CAIE format which gives students a more realistic feel of attempting question.

Review, feedback and contribution in this booklet by various competent teachers of a subject belonging to renowned school chains make it most valuable resource and tool for both teachers and students.

With all belief in strength of this resource material I can confidently claim that it is worth in achieving brilliance.

Our sincere thanks and gratification to **Mr. Mirza Irshad Baig** who took out special time to help compile and manage this booklet. We would also like to appreciate physics faculty for reviewing and indorsing it.

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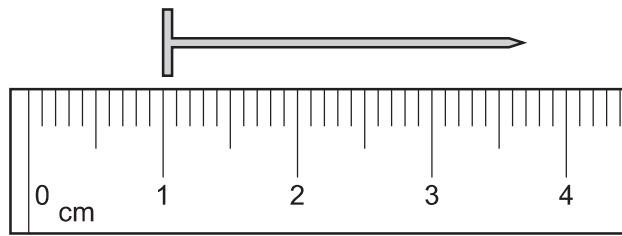
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Length and Time

Q1/P12/M/J/14

- 1 The diagram shows part of a ruler. The ruler is used to find the length of a nail.

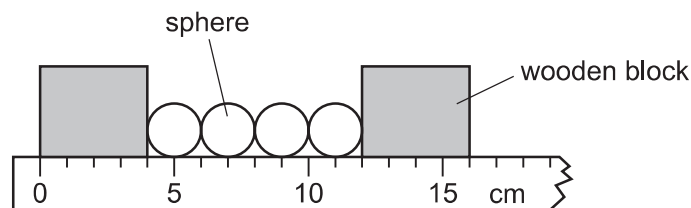


What is the length of the nail?

- A 2.2 cm B 2.7 cm C 3.2 cm D 3.7 cm

Q1/P12/M/J/15

- 2 The diagram shows four identical spheres placed between two wooden blocks on a ruler.

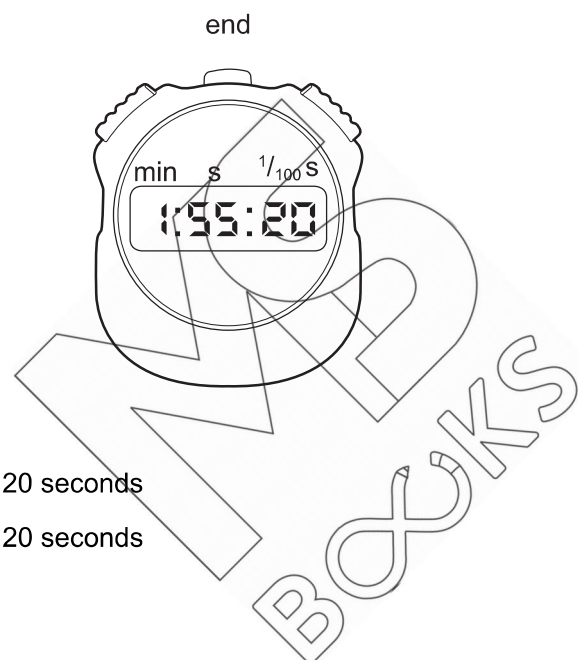


What is the diameter of one sphere?

- A 1.0 cm B 2.0 cm C 3.0 cm D 4.0 cm

Q1/P11/M/J/17

- 3 A stopwatch is used to time a runner in a race. The diagrams show the stopwatch at the start and at the end of the race.



How long did the runner take to run the race?

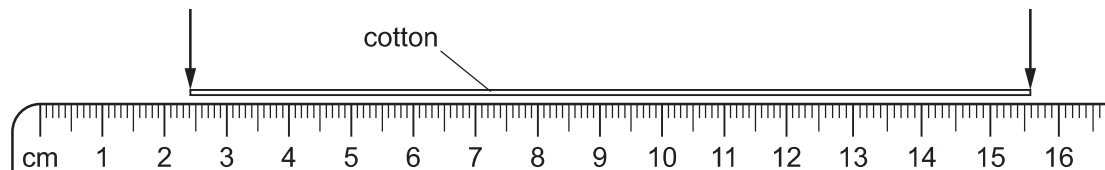
- A 70.00 seconds C 115.20 seconds
B 110.00 seconds D 155.20 seconds

Q1/P12/M/J/17

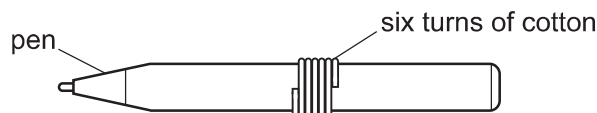
- 4 Which device is used to measure the time it takes for a 10 cm^3 block of ice to melt in a laboratory at room temperature?
- A measuring cylinder B ruler C stopwatch D thermometer

Q1/P21/M/J/18, Q1/P22/M/J/18

- 5 A length of cotton is measured between two points on a ruler.



When the length of cotton is wound closely around a pen, it goes round six times.

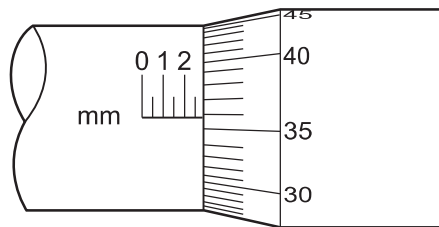


What is the distance once round the pen?

- A 2.2 cm B 2.6 cm C 13.2 cm D 15.6 cm

Q1/P21/O/N/18, Q1/P22/O/N/18, Q1/P23/O/N/18

- 6 The diagram shows part of a micrometer screw gauge.



What is the smallest reading that can be achieved using this micrometer screw gauge?

- A 0.0001 mm B 0.01 mm C 0.1 mm D 1 mm

Q1/21/M/J/19

- 7 Which quantity can be measured directly using a micrometer screw gauge?
- A the area of a sheet of paper C the thickness of a sheet of paper
B the mass of a sheet of paper D the volume of a sheet of paper

Q1/21/O/N/19

- 8 A student measures the diameter of a pencil.
Which measuring instrument will give the most precise reading?

- A a measuring tape C a micrometer screw gauge
B a metre rule D a ruler

Q1/22/O/N/19

- 9 A student measures the dimensions of a cylindrical glass beaker.
For which measurement should she use a micrometer screw gauge?

A circumference of the beaker **C** height of the beaker
B diameter of the beaker **D** thickness of the glass wall of the beaker

Q1/23/O/N/19

- 10 Which is the best apparatus to use to measure the thickness of a coin?

A balance **C** micrometer screw gauge
B ruler with a millimetre scale **D** pressure gauge

Q1/21/M/J/20

- 11 A pendulum makes 50 complete swings in 2 min 40 s.
What is the time period for 1 complete swing?

A 1.6 s **B** 3.2 s **C** 4.8 s **D** 6.4 s

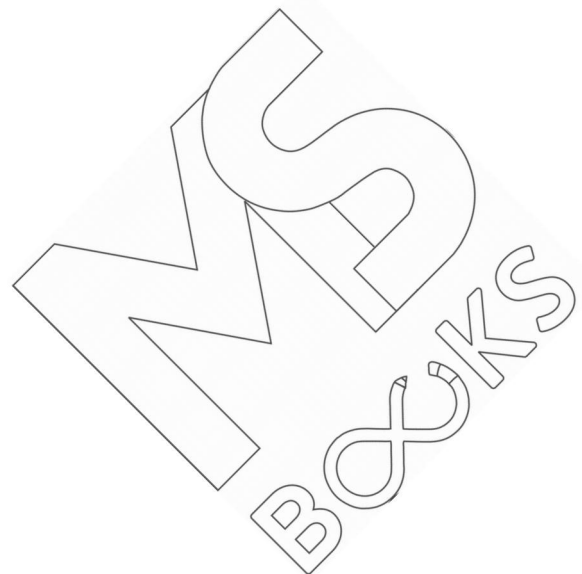
Q1/22/M/J/20

- 12 Five athletes P, Q, R, S and T compete in a race. The table shows the finishing times for the athletes.

athlete	P	Q	R	S	T
finishing time / s	22.50	24.40	25.20	26.50	23.20

Which statement is correct?

- A** Athlete P won the race and was 0.70 s ahead of the athlete in second place.
B Athlete P won the race and was 1.90 s ahead of the athlete in second place.
C Athlete S won the race and was 1.30 s ahead of the athlete in second place.
D Athlete S won the race and was 2.10 s ahead of the athlete in second place.



Q1/23/M/J/20

13 Diagram 1 shows a solid, rectangular-sided block.

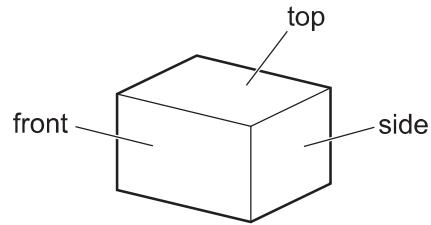


diagram 1

Diagram 2 shows the same block from the front and from the side.

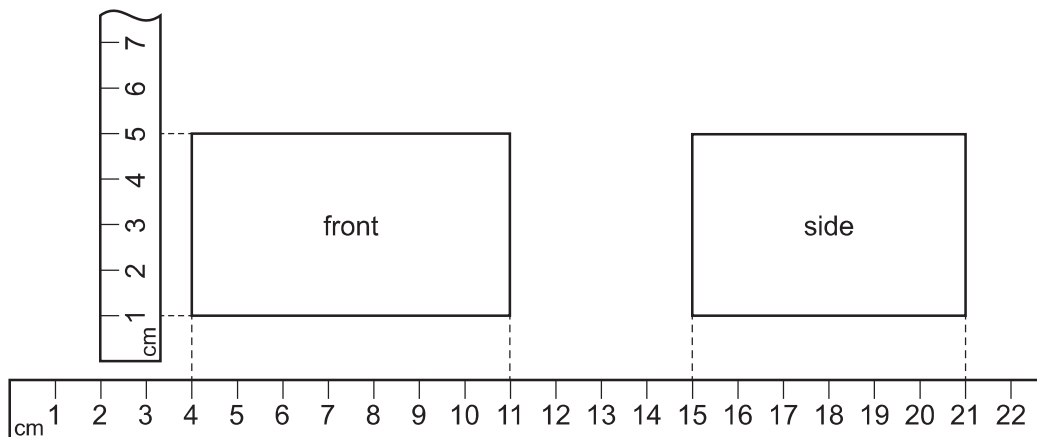


diagram 2

Metre rules have been shown close to the edges of the block.

What is the volume of the block?

- A** 120 cm^3 **B** 168 cm^3 **C** 264 cm^3 **D** 1155 cm^3

Q1/21/O/N/20

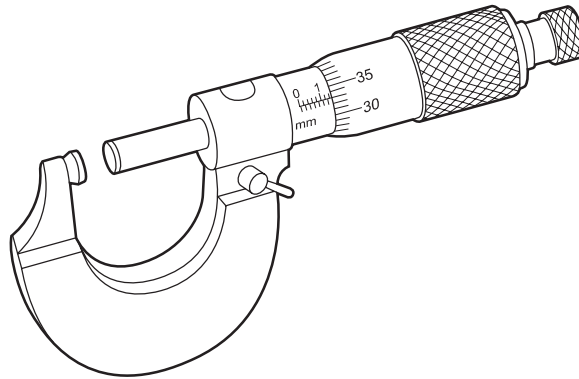
14 For which one of the following measurements would a micrometer screw gauge be most suitable?

- A** length of this page **C** diameter of a wire
B length of a pencil **D** diameter of an atom

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Q1/22/O/N/20

15 The diagram shows a measuring device.



For which measurement is this device suitable?

- A diameter of a cylinder of aluminium of about 20 cm
- B distance between two molecules of zinc
- C length of a rod of iron of about 1 m
- D thickness of a sheet of copper of about 1.5 mm

Q1/23/O/N/20

16 A micrometer screw gauge reads 0.02 mm when the jaws are fully closed. It reads 0.56 mm when measuring the diameter of a metal wire.

What is the diameter of the wire?

- A 0.36 mm
- B 0.54 mm
- C 0.56 mm
- D 0.58 mm

Q1/21/M/J/21

17 The diagram shows a stone of irregular shape.



Which property of the stone can be found by lowering it into a measuring cylinder half-filled with water?

- A length
- B mass
- C volume
- D weight

Q1/22/M/J/21

18 Which piece of apparatus is the most suitable for measuring the mass of a pencil sharpener?

- A digital balance
- B measuring cylinder
- C newton meter
- D ruler

ANSWER KEYS

Sr #	Key	Sr #	Key
1.	B	21.	C
2.	B	22.	B
3.	A		
4.	C		
5.	A		
6.	B		
7.	C		
8.	C		
9.	D		
10.	C		
11.	B		
12.	A		
13.	B		
14.	C		
15.	D		
16.	B		
17.	C		
18.	A		
19.	C		
20.	D		

