EXAM PAPER

Physics Unit 1 & 2 — Practice Exam 2

PREVIEW
This file has the first 15 of the 30 questions in this paper. The rest is locked: it comes with a PrepNest plan, or with the paper itself for VCE.

Reading time: 15 minutes (no writing)
Writing time: 45 minutes
Total time: 60 minutes

SECTIONS IN THIS PAPER

- Physics — 45 min

INSTRUCTIONS

You are not permitted to write during reading time — you may only read the paper and plan your approach. Answer every question you can. Write your working in the space provided for long-answer questions. Marking guidance and full explanations are provided in the separate answer key.

YEAR 11 PHYSICS

Physics

45 minutes

1. A car travels 150 km in 3 hours. What is its average speed?

A. 50 km/h

B. 450 km/h

C. 3 km/h

D. 147 km/h

2. A 1000 kg car accelerates from rest to 20 m/s in 8 seconds. Calculate the acceleration and the net force required, assuming no friction. Show your working.

3. Explain the difference between mass and weight, including the units used for each.

4. A ball is dropped from rest and falls for 3 seconds. Using g = 9.8 m/s², calculate its velocity after 3 seconds and the distance it has fallen. Show your working.

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5. State Newton's three laws of motion, and give one real-world example that demonstrates each law.

6. What is the formula for electrical power?

A. P = V/I

B. P = VI

C. P = IR

D. P = V + I

7. In a series circuit, which quantity is the same at every point in the circuit?

A. Voltage

B. Resistance

C. Current

D. Power

8. In a parallel circuit, which quantity is the same across every branch?

A. Voltage

B. Current

C. Resistance

D. Charge

9. What is the SI unit of electrical resistance?

A. Ohm

B. Volt

C. Ampere

D. Watt

10. What is the SI unit of electric charge?

A. Ampere

B. Volt

C. Coulomb

D. Farad

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11. Which of these is a good electrical insulator?

A. Copper

B. Rubber

C. Silver

D. Aluminium

12. A component has 6 V across it and 3 A flowing through it. What is its resistance?

A. 18 Ω

B. 0.5 Ω

C. 9 Ω

D. 2 Ω

13. Two resistors of 5 Ω and 10 Ω are connected in series. What is the total resistance?

A. 5 Ω

B. 10 Ω

C. 15 Ω

D. 2 Ω

14. Two identical 8 Ω resistors are connected in parallel. What is the total resistance?

A. 4 Ω

B. 16 Ω

C. 8 Ω

D. 2 Ω

15. What is the main purpose of a fuse in an electrical circuit?

A. To increase voltage

B. To store charge

C. To convert AC to DC

D. To break the circuit if current gets too high

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30.

15 questions locked, up to question 30.

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PREVIEW

That’s the end of the preview

You’ve seen the first 15 of the 30 questions in Physics Unit 1 & 2 — Practice Exam 2. The full paper is worth 30 marks.

STILL TO COME	QUESTIONS	MARKS
Physics	15	15

The full paper comes with

- Every question, printed exactly like the ones in this preview
- The complete answer key, with the working behind every mark
- A topic report after marking, showing what to practice next

Get the full paper at

prepnest.com.au/practice/exams/physics-year_11-2

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