



## GRADE 10 PHYSICAL SCIENCES

### NOVEMBER EXAMINATION PAPER 1: PHYSICS

#### SECTION A

##### QUESTION 1

Various options are provided as possible answers to the following questions. Choose the correct answer and write **ONLY** the **LETTER** (A-D) next to the **QUESTION NUMBER** in your answer book.

1.1 Which of the following is an example of a vector?

- A. time
- B. speed
- C. pressure
- D. mass

1.2 What can be determined by calculating the gradient of a position vs time graph?

- A. acceleration
- B. displacement
- C. velocity
- D. none of the above

Use the circuit diagram below to answer QUESTIONS 1.3 and 1.4



1.3 The voltage over the parallel resistors will be:

- A. 8V
- B. 7V
- C. 2V
- D. 3V

1.4 The current in ONE parallel branch if the resistor offered a resistance of 10.0Ω

- A. 1A
- B. 4A
- C. 1.5A
- D. 3A

1.5 The equivalent unit for work is:

- A. joule per coulomb
- B. joule per second
- C. joule per ampere
- D. coulomb per second

1.6 Two waves moving in opposite directions collide with constructive interference. Wave A has an amplitude of 2 units and Wave B has an amplitude of 0.5 units. The combined wave has an amplitude of:

- A. 1.5 units
- B. 2 units
- C. 2.5 units
- D. 0.5 units

1.7 A ball with a mass of 2kg is released from a height of 20m and takes 1.2s to reach the ground. If the mass of the ball is increased to 4kg the time it takes to reach the ground will:

- A. increase
- B. decrease
- C. remain the same

1.8 A glass rod and a cloth are rubbed against each other. The glass rod becomes positively charged. Which statement best describes the reason for this?

- A. The glass rod gained protons from the cloth.
- B. The cloth gained electrons from the glass rod.
- C. The glass rod lost protons to the cloth.
- D. The cloth lost electrons to the glass rod.

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## **Table of Contents Physical Science Paper Grade 12014 November**

1. Understanding the eBook Physical Science Paper Grade 12014 November
  - The Rise of Digital Reading Physical Science Paper Grade 12014 November
  - Advantages of eBooks Over Traditional Books
2. Identifying Physical Science Paper Grade 12014 November
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Physical Science Paper Grade 12014 November
  - User-Friendly Interface
4. Exploring eBook Recommendations from Physical Science Paper Grade 12014 November
  - Personalized Recommendations
  - Physical Science Paper Grade 12014 November User Reviews and Ratings
  - Physical Science Paper Grade 12014 November and Bestseller Lists
5. Accessing Physical Science Paper Grade 12014 November Free and Paid eBooks
  - Physical Science Paper Grade 12014 November Public Domain eBooks

- Physical Science Paper Grade 12014 November eBook Subscription Services
- Physical Science Paper Grade 12014 November Budget-Friendly Options
- 6. Navigating Physical Science Paper Grade 12014 November eBook Formats
  - ePub, PDF, MOBI, and More
  - Physical Science Paper Grade 12014 November Compatibility with Devices
  - Physical Science Paper Grade 12014 November Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Physical Science Paper Grade 12014 November
  - Highlighting and Note-Taking Physical Science Paper Grade 12014 November
  - Interactive Elements Physical Science Paper Grade 12014 November
- 8. Staying Engaged with Physical Science Paper Grade 12014 November
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Physical Science Paper Grade 12014 November
- 9. Balancing eBooks and Physical Books Physical Science Paper Grade 12014 November
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Physical Science Paper Grade 12014 November
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Physical Science Paper Grade 12014 November
  - Setting Reading Goals Physical Science Paper Grade 12014 November
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Physical Science Paper Grade 12014 November
  - Fact-Checking eBook Content of Physical Science Paper Grade 12014 November
  - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks

14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

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