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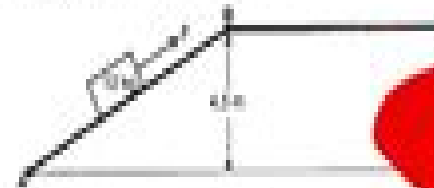
Department  
Basic Education  
REPUBLIC OF SOUTH AFRICA

# FULL MEMORANDUM GRADE 12 PHYSICS 2022 FINAL

This question paper consists of 18 pages and 3 data sheets.

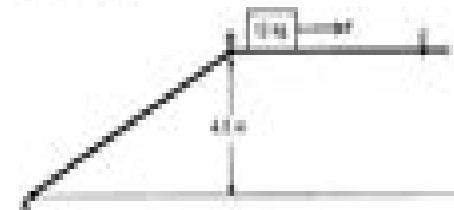
(QUESTION 5 (Start on a new page.)

A 12 kg block is initially at rest at point A at the bottom of a ROUGH inclined plane. The block is pulled up the incline by a constant force  $F$  acting parallel to the incline. The block reaches point B, which is at a vertical height of 4.0 m above the horizontal, with a speed of 3.00 m/s. See the diagram below.



- 5.1 Define the term non-conservative force.
- 5.2 Draw a labelled free-body diagram for the block when it is pulled up the incline.
- 5.3 Calculate the total work done on the block by the NON-CONSERVATIVE forces when the block moves from point A to point B. (4)

The same constant force  $F$  now moves the block at a CONSTANT VELOCITY across a rough horizontal surface from point B to point C, as shown below. Force  $F$  acts parallel to the horizontal surface.



The magnitude of the constant frictional force acting on the block while moving from point B to point C is 40 N, 40% greater than the magnitude of the constant frictional force acting on the block when it moves from point A to point B.

- 5.4 Calculate the distance from point A to point B. (5)

(10)

# Physical Science Memorandum Grade11 September 2013

**E. J. Van Zyl,V. Craul,A. Meyer,C.  
Muller,L. P. Spies**



## **Physical Science Memorandum Grade11 September 2013:**

*Captive Audience* Catherine Gidney, 2019-04-02 White Spot a popular BC restaurant chain solicits hamburger concepts from third and fourth grade students and one of the student's ideas becomes a feature on the kids menu Home Depot donates playground equipment to an elementary school and the ribbon cutting ceremony culminates in a community swathed in corporate swag temporary tattoos and a new Home Depot song written by a teacher and sung by the children Kindergarten students return home with a school district prescribed dental hygiene flyer featuring a maze leading to a tube of Crest toothpaste Schools receive five cents for each flyer handed to a student While commercialism has existed in our schools for over a century the corporate invasion of our schools reached unprecedented heights in the 1990s and 2000s after two decades of federal funding cuts and an increasing tendency to apply business models to the education system Constant cutbacks have left school trustees administrators teachers and parents with difficult decisions about how to finance programs and support students Meanwhile studies on the impact of advertising and consumer culture on children make clear that the effects are harmful both to the individual child and the broader culture *Captive Audience* explores this compelling history of branding the classroom in Canada

**Everything Science , Study and Master Physical Science Grade 11 and 12** E. J. Van Zyl, V. Craul, A. Meyer, C. Muller, L. P. Spies, 1999-01 *Focus on Physical Science , Physical Sciences* Santie Du Plessis, 2015 **Study And Master Physical Science Grade 11 Learner's Book** Karin H. Kelder, 2006-10-01 Study Master Physical Sciences Grade 11 takes a fresh and innovative look at the world around us and links science to our everyday lives All case studies and information on specialised fields companies and institutions were personally researched by the author and verified by experts in those fields companies and institutions

**Physical Science , 2009 Physical Science for Gr 11 : Physical Science for Grade 11 Theory, Exercises & Practical Investigations (CAPS)** J. M. Lucas, 2012 Physical Sciences Explained Ron Jones, Neil Berens, 2006 **Physical Sciences** S. Grussendorff, 2017 **Physical Sciences for All , 2006 Physical Sciences Explained** Ron Jones, Neil Berens, 2006 Doc Scientia Physical Sciences. Physics Ronel Bernardo, Hendry Du Plessis, Santie Du Plessis, Doc Scientia Centre, 2013 **Physical Sciences , 2015 Physical Sciences for the Classroom** John Bradley, Maria Lycoudi, 2003 Shuters Physical Sciences , Spot on Physical Sciences M. Elfrink, 2008 **Physical Sciences. Physics** Ronel Bernardo, 2020 *Physical Sciences , 2013 Physichem 11 CAPS* Faan Jordaan, Retha Jordaan, Marike De Beer, 2011

## **Physical Science Memorandum Grade11 September 2013** Book Review: Unveiling the Power of Words

In some sort of driven by information and connectivity, the energy of words has are more evident than ever. They have the capability to inspire, provoke, and ignite change. Such is the essence of the book **Physical Science Memorandum Grade11 September 2013**, a literary masterpiece that delves deep to the significance of words and their effect on our lives. Compiled by a renowned author, this captivating work takes readers on a transformative journey, unraveling the secrets and potential behind every word. In this review, we will explore the book is key themes, examine its writing style, and analyze its overall effect on readers.

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