

GRADE 10 PHYSICAL SCIENCES MARCH TEST

QUESTION 1

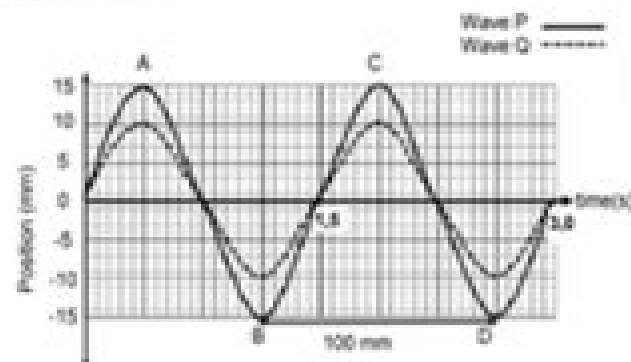
Various options are provided as possible answers to the following questions. Choose the correct answer and write **ONLY** the LETTER (A-D) next to the QUESTION NUMBER (1.1-1.5) on your folio paper. Example 1.6. D.

- 1.1 A positively charged object has:
 - A. An attraction to metal.
 - B. An attraction to all matter.
 - C. An attraction to all objects.
 - D. A repulsion of all objects.
- 1.2 Which one of the following types of electromagnetic waves has the **LONGEST** wavelength?
 - A. Radio waves
 - B. X-rays
 - C. Microwaves
 - D. Visible light
- 1.3 In which **ONE** of the following do sound waves travel the **FASTEST**?
 - A. Gases
 - B. Liquids
 - C. Solids
 - D. Vacuum
- 1.4 The SI unit for charge is the ...
 - A. Coulomb
 - B. Volt
 - C. Ohm
 - D. Ampere
- 1.5 The relationship between voltage and work done is:
 - A. Current
 - B. Directly proportional
 - C. Inversely proportional
 - D. Indirectly proportional

[10]

QUESTION 2

Below is a representation of two waves consisting of continuous pulses. Study it carefully and answer the questions that follow.

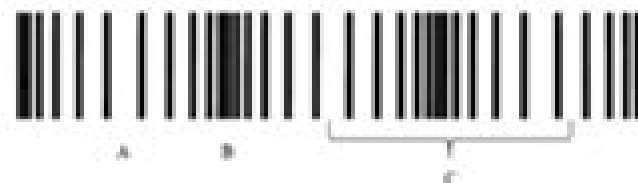


- 2.1 Define a **pulse**. (2)
- 2.2 Identify the type of waves illustrated above as **TRANSVERSE** or **LONGITUDINAL**. (2)
- 2.3 Which one of the two waves, P or Q, has the greatest amplitude? (1)
- 2.4 For Wave Q:
 - 2.4.1 What is the magnitude of its wavelength in metres? (1)
 - 2.4.2 What is the frequency of the wave? (1)
 - 2.4.3 Calculate the wave speed. (3)
- 2.5 If the waves were sent towards each other and allowed to collide.
 - 2.5.1 What would be the amplitude of the wave? (2)
 - 2.5.2 Describe the wave shape. (2)

[10]

QUESTION 3

- 3.1 The diagram below shows different points on a longitudinal wave.

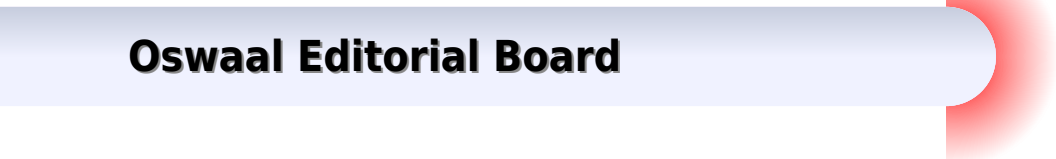


- 3.1.1 Point to which A, B and C?

(2)

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