

GRADE 10 PHYSICAL SCIENCES MARCH TEST

QUESTION 1

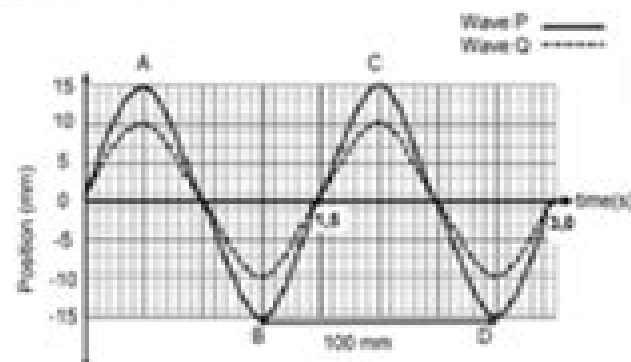
Various options are provided as possible answers to the following questions. Choose the correct answer and write **ONLY** the LETTER (A-D) next to the QUESTION NUMBER (1.1-1.5) on your folio paper. Example 1.6. D.

- 1.1 A positively charged object has:
 - A. an attraction to electrons.
 - B. a repulsion of electrons.
 - C. an attraction of protons.
 - D. a repulsion of protons.
- 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.

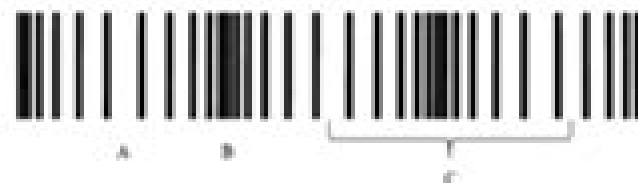


- 2.1 Define a **pulse**. (2)
- 2.2 Identify the type of waves illustrated above as **TRANSVERSE** or **LONGITUDINAL**. (2)
- 2.3 Which one of the two waves, P or Q, has the greatest amplitude? (1)
- 2.4 For Wave Q:
 - 2.4.1 What is the magnitude of its wavelength in metres? (1)
 - 2.4.2 Write the frequency of the wave. (1)
 - 2.4.3 Calculate the speed of the wave. (3)
- 2.5 If the waves were sent towards each other and allowed to collide,
 - 2.5.1 Write down the amplitude of wave P. (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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web then in the load section you can update the amplitude and implement that where you want that vibration to take place hope it helps if you know the data set of the external vibration then you