

Exam Practice Guide

Unit 4

Physics

Examination Questions

Key Features:

- ✓ 54 original examination style questions on all examinable topics.
- ✓ Full solutions and a marking guide to all questions.
- ✓ Separated into key topic areas within each Area of Study, enabling students to master one topic at a time.
- ✓ Written by VCE assessors who mark the real examinations.
- ✓ Excellent resource for examination practice.

Helping VCE students be the best they can be.

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TSSM

ACN 099 422 670

ABN 54 099 422 670

A: Level 14, 474 Flinders Street Melbourne VIC 3000

T: 1300 134 518

F: 03 97084354

W: tssm.com.au

E: info@tssm.com.au

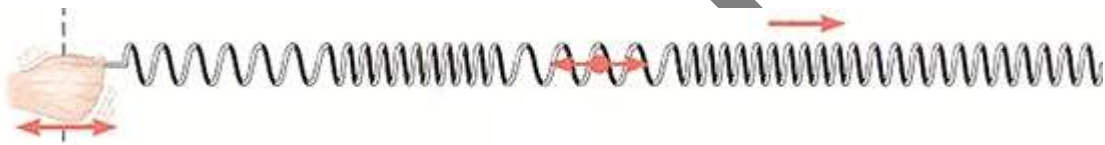
SAMPLE

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AREA OF STUDY 1 – How can waves explain the behaviour of light?**Topic 1: Properties of Waves****Question 1 (5 marks)**

A group of year 12 Physics students conduct an experiment, using a slinky spring that runs from left to right across a room. As shown in Figure 1 below, one end of the spring is given a quick shake by moving the hand forward and backward. After a short time, the hand holding the other end of the spring can feel the shake.

**Figure 1**

- a. What has been transferred in the experiment shown in Figure 1?

1 mark

- b. Why is the experiment an example of a wave?

1 mark

- c. What is a mechanical wave?

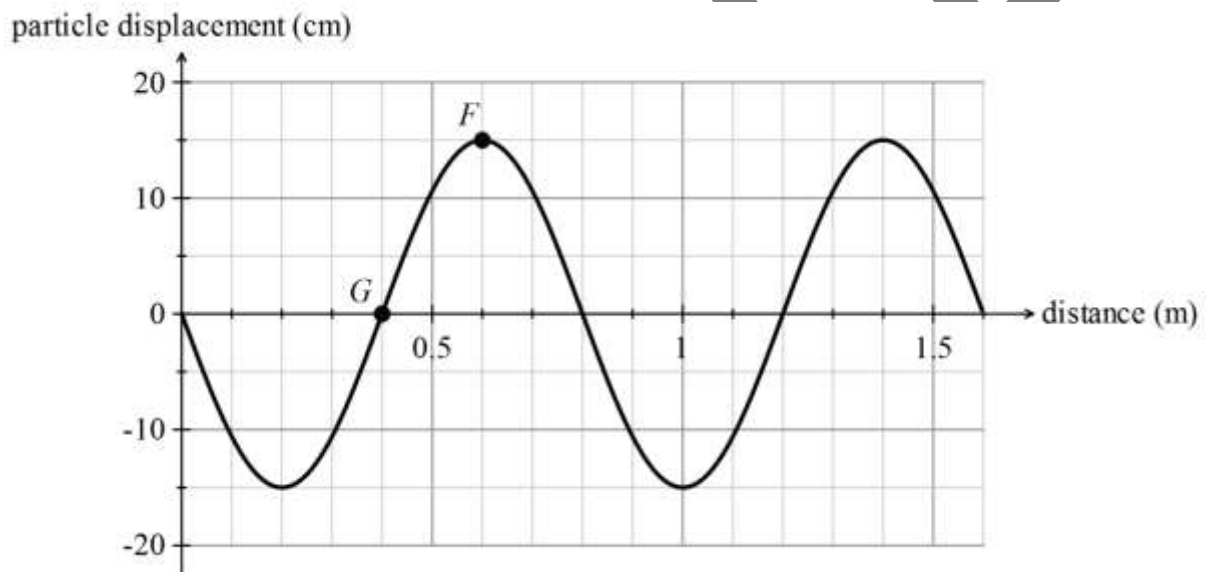
1 mark

d. Is the wave in the spring longitudinal or transverse? Give a reason for your answer.

2 marks

Question 2 (11 marks)

The displacement–distance graph in Figure 2 shows a snapshot of a transverse wave as it travels along towards the right. The speed of the wave is 12 m s^{-1} .

**Figure 2**

a. Determine the wavelength of this wave.

	m
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2 marks