TSSM™
Creating VCE Success

Exam Practice Guide

Unit 1
Physics
Examination 1

Key Features:

- ✓ 109 original examination style questions on all examinable topics.
- ✓ Full solutions and a marking guide to all questions.
- ✓ 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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AREA OF STUDY 1: HOW CAN THERMAL EFFECTS BE EXPLAINED

Key knowledge 1: THERMODYNAMIC PRINCIPLES

Question 1
Convert the following temperatures from Celsius to Kelvin.

i. $37^{o}C$ = _____K
ii. $-7^{o}C$ = _____K
iii. $50^{o}C$ = _____K

3 marks

Question 2
Kelvin to Celsius

i. 527 K = _____ ^{o}C
ii. 270 K = _____ ^{o}C
iii. 351 K = _____ ^{o}C

3 marks

Question 3
Describe thermal equilibrium.

2 marks

Question 4

Define the Zeroth law of thermodynamics.

2 marks

Question 5
Is it true that the first law of thermodynamics is a special case of the law of conservation of energy? Explain your answer.

2 marks

Question 6
State the first law of thermodynamics.

2 marks

Question 7
While 348 kJ of work is done on a system, the system releases 543 kJ of heat. Calculate the change in internal energy.

2 marks

Question 8
If the system presented in Question 7 undergoes a second stage where it absorbs 89 kJ of heat while 53 kJ of work is done on it. Find the total change in internal energy.

2 marks