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***N(T) LEVEL SCIENCE***

*Subject Code 5148*
Years 2015 – 2018 Paper 1 and Paper 2

*Subject Code 5147*
Years 2009 – 2014 Paper 1 and Paper 2

## *Past Examinations Papers 1, 2 (and 3)*



*Also available*

**ANSWER BOOK (Separate booklet)**

*Subject Code 5148*
Years 2015 – 2018

*Subject Code 5147*
Years 2009 – 2014

Paper 1 *answers with explanations*
Paper 2 *answers with workings where applicable*

*The answers* serve as a useful reference for self-study purposes.*

**Thought process**

This feature provides guidance to each question so as to assist students through their thought processes for effective learning and revision.

* The answers to the questions compiled in this publication are given by the publisher, Singapore Asia Publishers Pte Ltd.
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MINISTRY OF EDUCATION, SINGAPORE
in collaboration with
UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE
General Certificate of Education Normal (Technical) Level

# SCIENCE SYLLABUS T 5148/01

Paper 1 Multiple Choice **September/October 2018**

**1 hour**

Additional Materials: Multiple Choice Answer Sheet

**READ THESE INSTRUCTIONS FIRST**

Write in soft pencil.
Do not use staples, paper clips, glue or correction fluid.
Write your name, Centre number and index number on the Answer Sheet in the spaces provided unless this has been done for you.
DO **NOT** WRITE IN ANY BARCODES.

There are **forty** questions on this paper. Answer **all** questions. For each question there are four possible answers **A**, **B**, **C** and **D**.
Choose the **one** you consider correct and record your choice in **soft pencil** on the separate Answer Sheet.

**Read the instructions on the Answer Sheet very carefully**.

Each correct answer will score one mark. A mark will not be deducted for a wrong answer.
Any rough working should be done in this booklet.
The use of an approved scientific calculator is expected, where appropriate.



**[Turn over**

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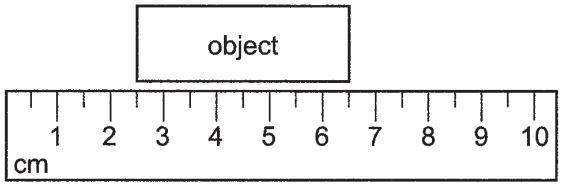
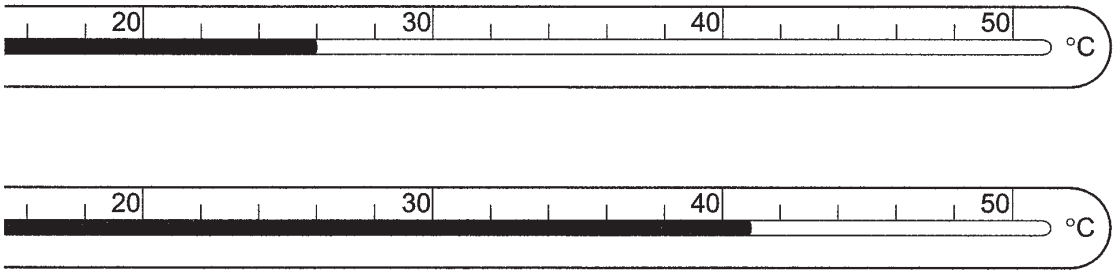
1 A ruler is used to measure the length of an object. The ruler is **not** drawn to scale.




What is the length of the object?

**A** 4.0 cm **B** 5.0 cm **C** 6.5 cm **D** 8.0 cm

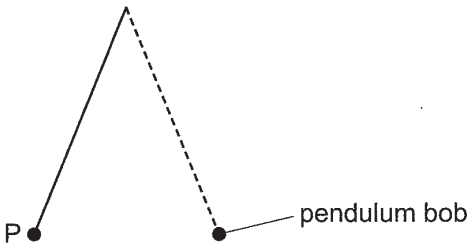
2 A thermometer is used to measure two temperatures.




What is the increase in temperature?

**A** 14.5 °C **B** 15.0 °C **C** 17.5 °C **D** 18.0 °C

3 A pendulum bob is pulled to one side and released from point P. It is then allowed to swing backwards and forwards until it comes to rest.




Which energy transfer shows the energy changes taking place when the pendulum bob is released from P?

**A** elastic potential energy → kinetic energy → thermal energy

**B** gravitational potential energy → kinetic energy → thermal energy

**C** kinetic energy → elastic potential energy → thermal energy

**D** kinetic energy → gravitational potential energy → thermal energy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4 Which electrical device uses the most electrical energy in the times shown?

**A** a 50 W light bulb in 250 s

**B** a 100 W soldering iron in 150 s

**C** a 500 W toaster in 50 s

**D** a 1000 W heater in 20 s

5 A television receives signals through an optical fibre.

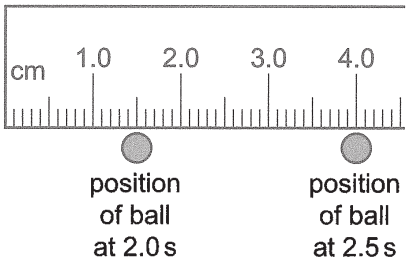
A man uses a remote control to switch the television on and off.

Which row correctly gives the names of the waves used in the optical fibre and by the remote control?

| | wave used in the optical fibre | wave used by the remote control |
|---|---|---|
| **A** | infra-red | ultra-violet |
| **B** | microwaves | ultra-violet |
| **C** | visible light | infra-red |
| **D** | visible light | radio waves |

6 A student observes the position of a ball against a ruler at different times.

The diagram shows two of these positions.




What is the average speed of the ball as it moves from one position to the other?

**A** 0.75 cm/s **B** 1.0 cm/s **C** 2.5 cm/s **D** 5.0 cm/s

7 A football hits a goal post. A force acts on the ball and it rebounds.

What happens to the shape and mass of the ball as it hits the goal post?

**A** The shape is altered and the mass decreases.

**B** The shape is altered and the mass is constant.

**C** The shape is constant and the mass decreases.

**D** The shape is constant and the mass is constant.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