



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

CANDIDATE
NAME

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

PHYSICS

5054/03

Paper 3 Practical Test

May/June 2007

ANSWER BOOKLET

2 hours

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.
All of your answers should be written in this Answer Booklet: scrap paper must **not** be used.
DO NOT WRITE IN ANY BARCODES.

Answer **all** questions.

Graph paper is provided in this Answer Booklet. Additional sheets of graph paper should be used only if it is necessary to do so.

At the end of the examination, fasten all work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's Use	
1	
2	
3	
4	
Total	

This document consists of **7** printed pages and **1** blank page.



Section A

1 (a) record of v

(b) (i) statement of one difference between the two images

(ii) record of x

record of y

(c) calculation of f using $f = \frac{(v-x)y}{x+y-v}$

2 (a) determination of l

determination of w

determination of T

(b) record of M

calculation of ρ using $\rho = \frac{M}{l w T}$

(c) (i) record of N

(ii) determination of t

determination of m

3 (a) (i) explanation, with the aid of a diagram, of how you made sure that the metre rule was vertical

(b) record of h_1

determination of an accurate value for h_2

(c) (i) calculation of the loss in gravitational potential energy

(ii) calculation of the gain in the gravitational potential energy

(iii) calculation of the loss of energy

Section B

4 (a) circuit diagram

(b) record of I_0

(c) record of R

record of I

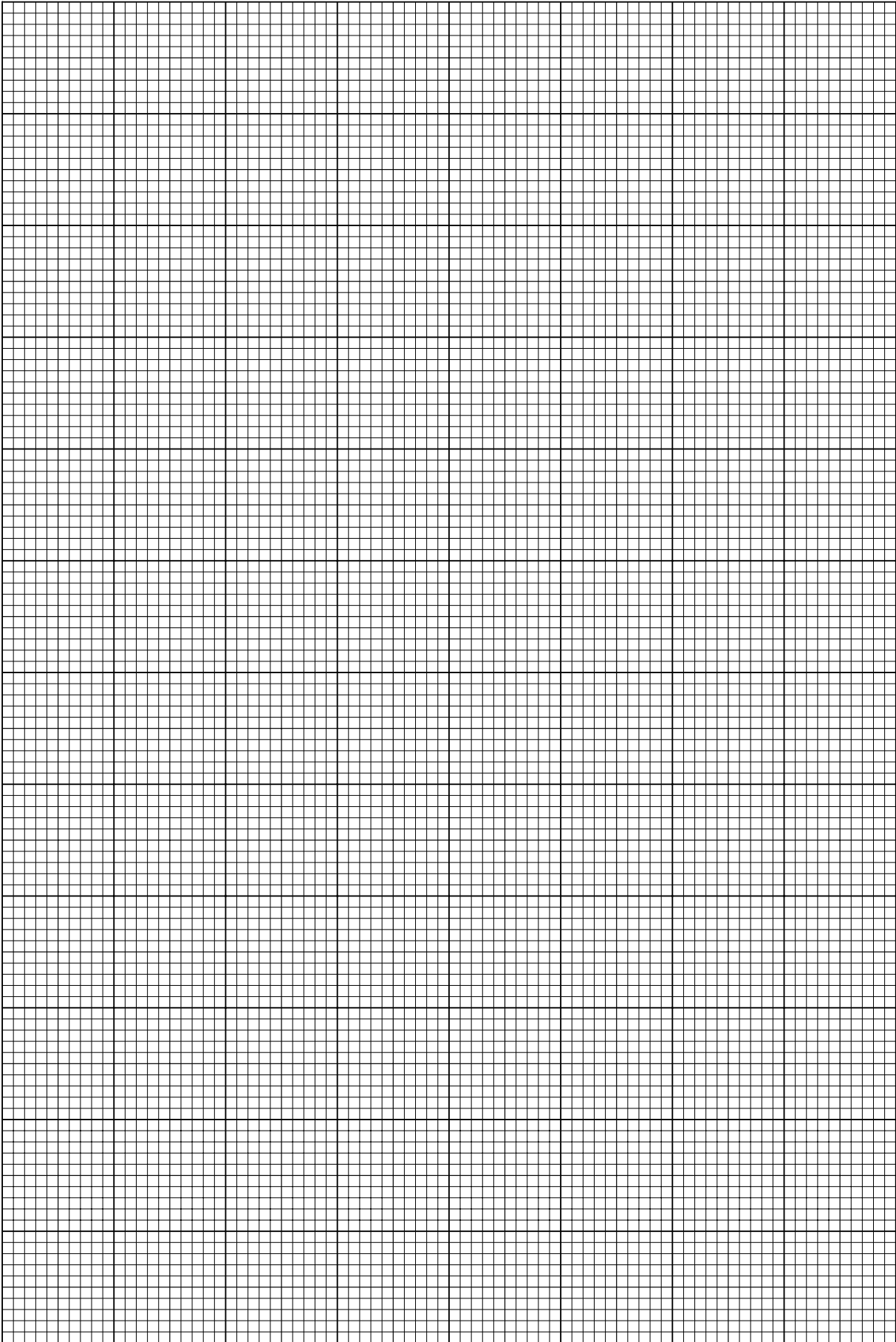
(d) table of values of R and I

(e) using the grid on page 7, plot a graph of I/A on the y -axis against R/Ω on the x -axis

(f) value of R corresponding to $0.5 I_0$

resistance of X

explanation



BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.