See back cover for an English translation of this cover

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L1–PHYSR

991603

NZQA
NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

Ahupūngao Kaupae 1, 2013

2.00 i te ahiahi Rāhina 25 Whiringa-ā-rangi 2013

PUKA RAUEMI
mō 90937M, 90938M, 90939M

Tirohia tēnei puka hei whakautu i ngā pātai i roto i ō pukapuka Pātai, Whakautu hoki.

Tirohia mehemea kei roto nei ngā whārangi 2–3 e raupapa tika ana, ā, kāore hoki he whārangi wātea.

KA TAEA TĒNEI PEPA TE PUPURI HEI TE MUTUNGA O TE WHAKAMĀTAUTAU.

Tērā pea e āwhina ēnei ture i a koe.

90937M Te whakaatu māramatanga ki ngā āhuatanga o te hiko me te autō

$V = IR$ $P = IV$ $P = \frac{E}{t}$ $R_T = R_1 + R_2 + ...$

$B = \frac{\mathrm{k}\, I}{d}$

90938M Te whakaatu māramatanga ki ngā āhuatanga o te ngaru

$v = \frac{d}{t}$ $v = f\lambda$ $f = \frac{1}{T}$

90939M Te whakaatu māramatanga ki ngā āhuatanga o te wera

$Q = mc\Delta T$ $Q = mL$ $P = \frac{E}{t}$

You may find the following formulae useful.

90937 Demonstrate understanding of aspects of electricity and magnetism

$$V = IR \qquad P = IV \qquad P = \frac{E}{t} \qquad R_T = R_1 + R_2 + \ldots.$$

$$B = \frac{\mathrm{k}\, I}{d}$$

90938 Demonstrate understanding of aspects of wave behaviour

$$v = \frac{d}{t} \qquad v = f\lambda \qquad f = \frac{1}{T}$$

90939 Demonstrate understanding of aspects of heat

$$Q = mc\Delta T \qquad Q = mL \qquad P = \frac{E}{t}$$

English translation of the wording on the front cover

L1–PHYSR

Level 1 Physics, 2013

2.00 pm Monday 25 November 2013

RESOURCE SHEET
for 90937, 90938, and 90939

Refer to this sheet to answer the questions in your Question and Answer Booklets.

Check that this booklet has pages 2–3 in the correct order and that none of these pages is blank.

YOU MAY KEEP THIS SHEET AT THE END OF THE EXAMINATION.