

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

NOVEMBER 2002

INTERNATIONAL GCSE

MARK SCHEME

MAXIMUM MARK : 60

SYLLABUS/COMPONENT : 0625/6

**PHYSICS
(ALTERNATIVE TO PRACTICAL)**



UNIVERSITY of CAMBRIDGE
Local Examinations Syndicate

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1. (a) (i) $x = 6.0 / 6.1$	1
(ii) $6/12$	1
$d = 0.50$	1
(iii) value 0.0654	1
unit	1
$2/3$ sf	1
(b) (i) 80	
96	1
(ii) $96 - 80 = 16$	1
(iii) 0.0711 (ignore sf) with unit	1
(c)	
(ii) M1, difficult to measure liquid volume accurately	
M2, more beads	
M2, diameter variation	
other sensible suggestion.	1
	TOTAL 10
2. (a) symbol	1
position	1
(b) (i) student B	
(ii) B gives exact p.d.	1
or A gives p.d. to nearest 2V	1
(c) correct symbol	1
(d) correct position ($\pm 0.1V$)	1
	TOTAL 6
3. (a) (i) & (ii) scales	1
labels	1
plots (-1 each error)	2
line judgement – str line thin & neat & good plots	1
- best fit	1
(iii) large triangle ($> \frac{1}{2}$ line) seen	1
$G = 1.15 - 1.25$	1
(iv) correct value (ecf) (= 6.0)	1
unit & $2/3$ sf	1
(v) weight off end of rule	1
(b) add plasticine to end of balance at 50.3 cm and take measurements accordingly	
OR move pivot to 50.3 mark	
OR no action – result will still be correct	1
	TOTAL 12

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4. (a) (i) heat loss during the experiment (third box)	1
(ii) insulation, repeats, stirring, use dig thermometer, lid (any 2)	1
	1
(b) 38°C	1
(c) value 66	1
W	1
	TOTAL 6
5. (a) (i) 2.07	1
2/3 sf	1
no unit	1
(ii) upside down	1
3 cm high	1
(b) metre rule on bench or clamped above lens	1
	TOTAL 6