

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0652 PHYSICAL SCIENCE

0652/52

Paper 5 (Practical Test), maximum raw mark 30

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- 1 (a) (i) realistic I value recorded for 15.0 cm ;
realistic V value recorded for 15.0 cm ; [2]
- (ii) units both correct (symbols **or** names) ; [1]
- (iii) all I values $< 1.5\text{ A}$ **and** to at least 2 d.p. ;
all V values $< 2.5\text{ V}$ **and** to at least 1 d.p. ;
 I values decreasing and V values increasing ; [3]
(allow: one pair of identical values)
- (b) axes labelled with units ;
suitable choice of scales (\geq half the grid used) ;
at least 5 plots correct to half a small square ;
good best-fit line judgement ; [4]
- (c) indication **on graph** of how data obtained **and** at least half of line used ;
correct calculation for triangle method using data from graph ; [2]
- (d) answer equals (c) recorded to 2 or 3 significant figures ; [1]
(ecf from (c))
- (e) reading meter scales ;
observe perpendicularly (owtte) ;
OR
measuring the length of wire ;
observe perpendicularly / repeat for increasing lengths of wire / pull wire straight ; [max 2]
(allow: 1 mark for not switching off between readings / battery might run down)
(ignore: crocodile clips)

[Total: 15]

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- 2 (a) vapour burns / blue flame / flammable gas / splint remained lit ;
solid goes grey/black/darkens/condensation ; [2]
- (b) no effervescence / no fizzing / no bubbles ;
pungent smell / blue litmus turns red ;
*(do **NOT** allow this mark if has red litmus to blue)*
not a carbonate / not CO_3^{2-} ;
acidic gas ; [4]
- (c) no visible reaction / no ppt. ;
not a sulfate / not SO_4^{2-} ; [2]
- (d) (i) blue litmus turns red ; [1]
(ii) effervescence / fizzing / bubbles ; [1]
(iii) (HCl) faster effervescence / more fizzing / more bubbles (than Q) ; [1]
(iv) (weakly) acidic ; [1]
- (e) (i) effervescence / fizzing / bubbles ;
(limewater becomes) milky / white ppt. ; [2]
(ii) calcium carbonate / CaCO_3 / calcium hydrogen carbonate / $\text{Ca}(\text{HCO}_3)_2$; [1]

[Total: 15]