

Mark Scheme (Results)

June 2011

International GCSE

Physics (4PH0) Paper 1P

Science Double Award (4SC0) Paper 1P

INTERNATIONAL GCSE PHYSICS 4PH0/1P – SUMMER 2011

ecf - error carried forward
 dop - dependent on previous
 ora - or reverse argument
 owtte - or words to that effect

Question number	Answer	Notes	Marks
1 (a) (i)	gravitational		1
(ii)	elastic		1
(iii)	kinetic		1
(b) (i)	bounces lower / less / smaller / shorter / not as high (each bounce)	ACCEPT: refs to diagram e.g. "loops / dotted lines less tall" ACCEPT: distance between bounces gets smaller	1
(ii)	(transferred away to) thermal energy	ACCEPT: heat / sound REJECT: other forms of energy e.g. light / chemical ACCEPT: refs to where the energy goes e.g. "to the air", "to the ground", "to the surroundings" IGNORE: friction	1

Total 5 Marks

Question number	Answer	Notes	Marks
11 (a)	Mass of cylinder + unit = 325 ; Mass of cylinder = 106 ; Mass of liquid in cylinder = 219 ; Volume of liquid = 176 ; Mass unit: g ; Volume unit: cm^3 / ml ;	ACCEPT: ecf on M1 and M2 ACCEPT: either unit used appropriately at least once	6
(b)	Any two from: equation; correct substitution made or correct mass indicated; density = between 1.24 and 1.25; density unit (g/cm^3 OR g/ml);	ecf from 11(a) Correct and consistent alternative e.g. 1240 kg/m^3 1.24 kg/dm^3	2
(c)	Any two from: more sensitive equipment ; check balance zero ; calibrate any equipment ; avoid parallax when reading measuring cylinder / bottom of meniscus ; use larger volume of liquid ;	ACCEPT: measure to more dp / use burette IGNORE: repeat experiment IGNORE: refs to "use more accurate..."	2

Total 10 marks

