Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: GCSE Triple Science_Forces (High Demand Questions)

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Mark Schemes

Q1.

(a) (i) kinetic energy = $\frac{1}{2}$ × mass × speed^2

accept ke = $\frac{1}{2}$ mv^2

*do **not** accept KE* = $\frac{1}{2}$ ms^2

1

(ii) 13

allow 1 mark for correct substitution or transformation

2

(b)

*if B is at the top of the curve - **no** marks*

PE at A maximum
PE at B minimum
PE at C just less than **or** = to A

*do **not** accept wavy lines **or** very non-symmetrical*
accept straight lines or curves

1

difference between A and B is 5000 to 5200

1

[5]

Q2.

(a) **Quality of written communication**

for correct use of term speed in all correct examples
Q ✓ *Q* ✗

1

*describes all 3 sections correctly for **2** marks*
*describes 2 or 1 section correctly for **1** mark*

max 2

A – **B** constant <u>speed</u>

*do **not** accept pace for speed*

B – **C** (has accelerated) to a higher (constant) <u>speed</u>

C – **D** goes back to original / lower (constant) speed

*allow for **1** mark, initial and final (constant) speeds are the same accept velocity for speed*
ignore reference to direction

(b) 62.5

allow answer to 2 s.f.

*allow **1** mark for drawing a correct triangle **or** for using two correct pairs of coordinates*

*allow **1** mark for correct use of y/x*

ignore units

3

[6]

Q3.

(a) (i) gpe = weight × height

accept Ep = mgh
accept pe= mgh

1

(ii) 1200

accept values using 9.8 (1)
*allow **1** mark for correct substitution*

2

(b) (i) 120

accept $\frac{\text{their (a)(ii)} \times 6}{60}$

1

(ii) 300

allow b(i) ÷ 0.4 for both marks
*allow **1** mark for correct transformation*

2

[6]