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

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Name of the Student:_____
Max. Marks : 19 Marks **Time : 19 Minutes**

Mark Schemes

Q1.

(a) 47250

*answers of 1350/ 33750/ 48600 gain **1** mark*
*allow **1** mark for correct substitution using both 18 and 3*

2

(b) (i) 47250 or their (a)

accept statement 'same as the KE (lost)'
ignore any units

1

(ii) transformed into heat/ thermal energy

sound on its own is insufficient
accept transferred/ lost/ for transformed
*do **not** accept any other form of energy included as a list*

1

[4]

Q2.

(a) 4

*allow **1** mark for extracting correct information 12*

2

m/s^2

ignore negative sign

1

(b) 9 (s)

1

[4]

Q3.

(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]

Q4.

(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 speed

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

B – **C** (has accelerated) to a higher (constant) speed

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]