Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic : 2_Motion and Forces

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

Mark Schemes

Q1.

Question number	Answer	Additional guidance	Mark
(i)	D travelling more slowly A is incorrect, more passengers would increase the stopping distance B is incorrect, worn tyres would increase the stopping distance C is incorrect, if the car needed new brakes this would increase the stopping distance		(1) AO1

Question number	Answer	Additional guidance	Mark
(ii)	identification of horizontal line as reaction time (1) evaluation (1) 0.6 (s)	award full marks for correct answer without working 0.7 scores 1 mark	(2) AO3

Q2.

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Question number	Answer	Mark
	C mass	(1)

Q3.

Question number	Answer	Additional guidance	Mark
(i)	0.52		(1) AO3

Question number	Answer	Additional guidance	Mark
(ii)	addition and division (1) $\frac{0.35+ 0.32+ 0.38 + 0.33}{4}$ evaluation (1) 0.35 (m)	 $\frac{0.35+ 0.32+ 0.52 + 0.38 + 0.33}{5}$ accept 0.345 (m) award full marks for correct answer without working. accept 0.38 for 2 marks (five results included in average	(2) AO2

Question number	Answer	Additional guidance	Mark
(iii)	Any **one** from make the slope steeper(1) add more books/blocks (1) push/pull the trolley (1)	 accept 'higher slope/high slope accept means of reducing friction e.g. use lubricant	(1) AO1

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Q4.

Question number	Answer	Mark
(i)	☒ **C** $F = m \times a$ A, B and D have incorrect mathematical operator	(1)

Question number	Answer	Additional guidance	Mark
(ii)	140 (1) N (1)	no ecf from 2ai independent mark allow newton(s) n do **not** allow Ns ns	(2)

Q5.

Question Number	Answer	Mark
(i)	The only correct answer is **C 20 m/s** A is not correct because 0.2 m/s is too slow B is not correct because 2 m/s is too slow D is not correct because 200 m/s is too fast	(1)

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Question Number	Answer	Additional guidance	Mark
(ii)	recall (1) (ΔGPE) = m × *g* × Δh substitution (1) (ΔGPE =) 75 x 10 x 20 evaluation (1) 15 000 (J)	NO PoT error NO ecf from wrong equation mgh or m x g x h 75 x 10 x 20 scores the first 2 marks accept 14700 (J) from using g = 9.8 (N/kg) award full marks for the correct answer without working	(3)

Q6.

Question number	Answer	Additional guidance	Mark
	B force A is incorrect, mass is a scalar quantity C is incorrect, energy is a scalar quantity D is incorrect, distance is a scalar quantity		(1) AO1

Q7.

Question number	Answer	Mark
	D	(1)

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