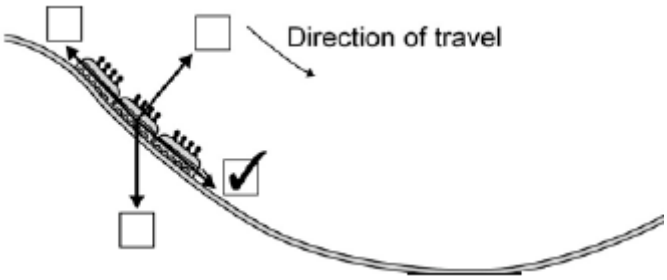
Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Mark Schemes

Q1.

(a) correct box ticked



1

(b) (i) 30

ignore added units

1

(ii) 2250 **or** their (b)(i) × 75 correctly calculated

*allow **1** mark for correct substitution ie 75 × 30 **or** their (b)(i) × 75 provided no subsequent step shown*

*an answer of 750 gains **1** mark only if answer to (b)(i) is 10*

2

[4]

Q2.

(a) 1800 (N)

*allow **1** mark for correct substitution ie 180 × 10 provided no further steps shown*

2

(b) 3780

or

their (a) × 2.1 correctly calculated

*allow **1** mark for correct substitution*

*ie 1800 **or** their (a) × 2.1 provided no further steps shown*

2

joule

accept J

accept any clear indication of correct answer

1

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(c) 0

reason does not score if 0 not chosen

1

work is only done when a force makes an object move

accept distance moved is zero

accept no energy transfer (to the bar)

accept the bar is not moving/is stationary

'it' refers to the bar/weights

1

[7]

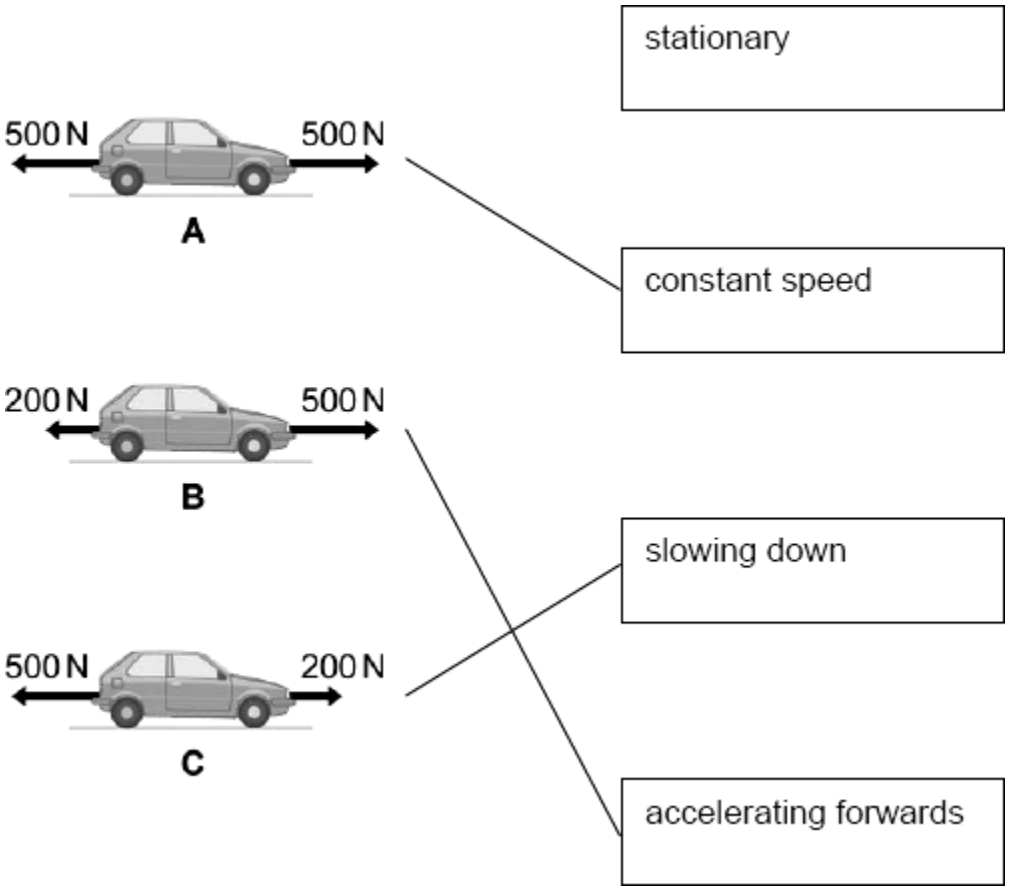
Q3.

(a) *3 lines drawn*

all correct

*allow **1** mark for each correct line*

if two or more lines are drawn from any diagram then all these lines are incorrect



3

(b) (i) horizontal arrow to the right

judge by eye

accept an arrow drawn outside the box if it is labelled correctly

1

(ii) horizontal arrow to the left

judge by eye

accept an arrow drawn outside the box if it is labelled correctly

1

(iii) equal to

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1

(iv) to measure the forces exerted on the dummy during the impact

1

[7]

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