

Name of the Student: _____

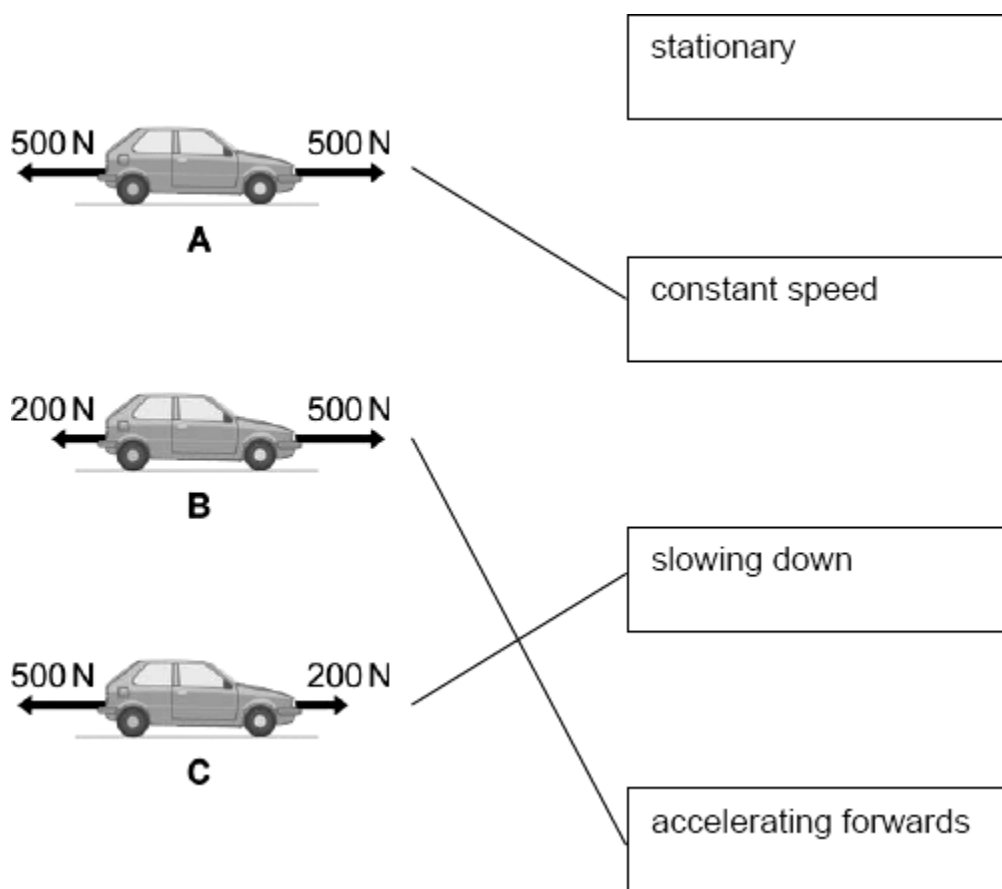
Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

- (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 | 1 | |
| (iv) to measure the forces exerted on the dummy during the impact | 1 | |
| | | [7] |

Q2.

- | | | |
|--|---|-----|
| (a) (i) 720
<i>allow 1 mark for correct substitution,
ie 72×10 provided no subsequent step shown</i> | 2 | |
| (ii) 720
or
their (a)(i) | 1 | |
| (b) (i) gravitational potential
<i>allow gravitational
allow potential</i> | 1 | |
| (ii) 432

<div style="text-align: right; margin-right: 50px;"> $\frac{21600}{50}$ </div> <i>allow 1 mark for correct substitution, ie $\frac{21600}{50}$ provided no subsequent step shown</i> | 2 | |
| watt / W | 1 | |
| | | [7] |

Q3.

- | | | |
|--|---|-----|
| (a) (i) 12 | 1 | |
| (ii) 0.2

<i>allow 1 mark for their (a)(i) $\div 60$ and correctly calculated</i> | 1 | |
| m/s ²
<i>accept correct unit circled in list
accept ms^{-2}
do not accept mps^2</i> | 1 | |
| (b) B | 1 | |
| | | [4] |