

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

- (a) X marked in the centre of the sign



Check position by eye

1

- (b) concentrated

1

- (c) 0.5 (s)

allow 1 mark for correct substitution, ie

$$\frac{1}{2}$$

provided no subsequent step

2

- (d) make the cables longer

accept pendulum / sign for cables

1

[5]

Q2.

- (a) (force on the chain is) smaller (than the force of the toe)

1

- (b) Tick in middle box

The moments are equal and opposite

1

- (c) move the toe (up the pedal) away from the pivot

Q2.

(a) 3 (.0)

allow 1 mark for correct substitution i.e. 25×0.12 provided no subsequent step

2

(b) (i) elastic potential

correct order only

1

kinetic

1

(ii) increases

1

to 80 (mm) (or more)

*accept any number greater than 75**an answer 'it (more than) doubles' gains both marks*

1

(c) (i) weight

1

(ii) downward speed increases

1

[8]