TURNING EFFECT OF A FORCE

1. B

2. C

3. B

4. c [M1]
clockwise moment (accept moment on RH side) was too big [A1]
reduce moment by reducing distance [A1]
note: moment must be mentioned in both of the last 2 marks; accept turning effect, torque and leverage as alternatives to moment

5.

(a) 0.96 — *accept '0.06 × 16'* — 1

Ncm — *accept 'cmN'* — 1

accept for both marks '0.0096 Nm'

do **not** accept *lower case n for N*

the mark for the unit may be given in (b) (i) provided it is not contradicted in part (a)

(b) (i) any **one** from — 1

- 0. 96 Ncm
- the same as the carbon dioxide balloon

accept the same numerical answer given in (a) (the unit is not required)

accept 'the same'

(ii) 0.02 — 1

consequential marking applies

accept numerical answer to (b) (i)÷48

[4]

6.

(a) down — 1

(b) Ellie and Maggy — *names may be in either order* — 1

***both** names are required for the mark*

do not *accept '540 and 540'*

this rules out the same person being used twice

(c)

A	B
up	down

1

award the mark if only one of these correct

responses is given provided an incorrect response is not written in the other box

(d) any **one** from

- Rosie
- Jack
- Rosie or Jack

1

*do **not** accept '490'*

*do **not** accept '510'*

*do **not** accept '490 or 510'*

*do **not** accept 'Rosie and Jack'*

[4]