

Name of the Student: _____

Max. Marks : 20 Marks

Time : 20 Minutes

Mark Schemes

Q1.

(a) centre of **X** at the centre of the concentric circles
judge by eye that the intention is correct 1

(b) drawn from any corner to the diagonally opposite corner
judge by eye that the intention is correct
or from the mid-point of any side to the mid-point of the opposite side
*if more than one axis of symmetry has been drawn,
accept only if both / all are correct* 1

(c) a turning
accept any unambiguous indication 1

[3]

Q2.

(a) 53 (m) 1

(b) (i) Similar shape curve drawn above existing line going through (0, 0)
*allow 1 mark for any upward smooth curve or straight upward line
above existing line going through (0, 0)* 2

(ii) rain on road 1

car brakes in bad condition 1

(c) (i) all three lines correctly labelled
allow 1 mark for one correctly labelled

top line – C
accept 1.2

middle line – B
accept 0.9

bottom line – A

(ii) any **two** from:

- (table has) both variables are together
accept tired and music as named variables
- both (variables) could/ would affect the reaction time
- cannot tell original contribution
accept cannot tell which variable is affecting the drive (the most)
- need to measure one (variable) on its own
accept need to test each separately
- need to control one of the variables

2

[9]

Q3.

(a) centre of X at the point where the axes cross
to within 1 mm in any direction

1

(b) (i) (at / in the) centre (of the tyre)
or unambiguously shown on the diagram

1

(ii) (this is) where axes of symmetry (of the tyre) cross / intersect / meet
or point at which the mass of the tyre seems to be (concentrated)

1

[3]

Q4.

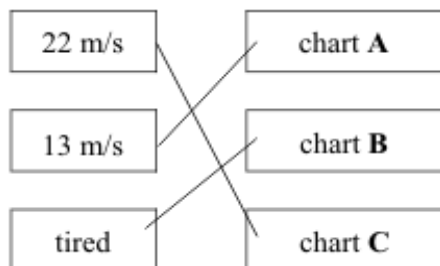
(a) (i) constant

1

(ii) heat

1

(b) (i) 3 links correct



*allow 1 mark for 1 correct link
if more than one line is drawn from a condition mark all lines from that condition incorrect*

2

(ii) increased

1

[5]