1 Write 327 correct to the nearest ten.

32(7)

tenths

7 > 5, so we need to round up = 330

330

(Total for Question 1 is 1 mark)

2 Freddie measured the length of a pencil as 7.2 cm correct to 1 decimal place.

Complete the error interval for the length, *p* cm, of the pencil.

Error interval = $\dfrac{0.1}{2}$

= 0.05

Upper interval = 7.2 + 0.05

= 7.25

Lower interval = 7.2 − 0.05

= 7.15

7.15 ① $\leqslant p <$ 7.25 ①

(Total for Question 2 is 2 marks)

3 (a) Work out an estimate for the value of 92×1.63
You must show all your working.

Round the values 92 and 1.63

e.g. round 92 to 90
round 1.63 to 1.5

$92 \times 1.63 \approx 90 \times 1.5$ ①

$$\begin{array}{r} 90 \\ \times\ 1.5 \\ \hline 450 \\ +\ 9\,0\,0 \\ \hline 1\,3\,5.0 \end{array}$$

_____ 135 ①
(2)

Given that
$$2.96 \times 3.2 = 9.472$$

(b) find the value of 29.6×32

$29.6 \times 32 = (2.96 \times 10) \times (3.2 \times 10)$
$\quad\quad\quad = 2.96 \times 3.2 \times 100$
$\quad\quad\quad = 9.472 \times 100$

_____ 947.2 ①
(1)

(Total for Question 3 is 3 marks)

4 Write 1476 to the nearest 10

6 is greater than 5
so round up

1480 ①

(Total for Question 4 is 1 mark)

5   Write 19.4949 correct to the nearest whole number.

If $\geqslant 19.5$, then rounded up to 20

If < 19.5, then rounded down to 19

19 ①

(Total for Question 5 is 1 mark)

— round up because 6 is more than 5.

6 (a) Write 87 569 correct to 3 significant figures.

87 600

87600 ①

(1)

(Total for Question 6 is 1 mark)

7 A total of 700 tickets were on sale for a football match.

For a different football match,

297 tickets were sold for £9.50 each.
399 tickets were sold for £19.50 each.

(b) Work out an estimate for the total amount of money paid for these tickets.
You must show all your working.

estimate = rounding the numbers

297 tickets × £9.50 a ticket
⤷ rounds to 300 tickets × £10 a ticket ✓ ①
= £3000 total

399 tickets × £19.50 a ticket
⤷ rounds to 400 tickets × £20 a ticket ✓ ①
= £8000 total

£3000 + £8000 = £11,000   ✓ ①

£ 11,000

(3)

(Total for Question 7 is 3 marks)