Multiple choice section

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Answer | D | A | D | C | B | C | B | A |

Question 1 [6.1]

D

23 cm = 230 mm

Question 2 [6.2]

A

Perimeter = 2 × 90 + 2 × 40

= 180 + 80

= 260 mm or 26 cm

Question 3 [6.6]

D

V = 5 cm3

Question 4 [6.3]

C

64 = 8 × 8

length = 8 m

Question 5 [6.3]

B

cm2

Question 6 [6.3]

C

A = 7 × 8 = 56 cm2

Question 7 [6.4]

B

A = 13 × 3 = 39 cm2

Question 8 [6.5]

**A**

A =   b × h

=   10 × 6

= 30 cm2

Multiple-choice total marks: 8

Short answer section

Question 9 3 marks [6.1]

(a) To convert from a smaller unit of measurement to a larger unit, you divide.

(b) The area of a rectangle is calculated by multiplying the length by the width.

(c) The perimeter of a square is calculated by multiplying its length by 4.

Question 10 3 marks [6.1]

(a) 19 km = 19 000 m

(b) 812 mm = 81.2 cm

(c) 799 mm = 0.799 m  
Convert to cm 799 mm = 79.9 cm, then convert to m 79.9 cm = 0.799 m

Question 11 1 mark [6.1]

2 375 000 m = 2 375 km

Question 12 4 marks [6.2]

(a) P = 2l + 2w  
= 2 × 31 + 2 × 1.4  
= 62 + 2.8  
= 64.8 cm

(b) P = 4l  
= 4 × 160  
= 640 mm

Question 13 2 marks [6.2]

State the lengths of all sides, including those not given.

6 + 8 + 8 + 12 + 2 + 4 = 40 cm

Question 14 2 marks [6.3]

|  |  |
| --- | --- |
| (a) A = lw = 3 × 3 = 9 cm2 | (b) A = lw = 3 × 8 = 24 cm2 |

Question 15 2 marks [6.3]

A = lw

= 7 × 3

= 21 cm2

Question 16 2 marks [6.3]

A = l2 or A = l× w  
= 0.82  
= 0.64 cm2

Question 17 2 marks [6.4]

A = bh (use the perpendicular height)

= 12 × 2

= 24 cm2

Question 18 2 marks [6.5]

A = bh

=  × 13 × 4

= 26 cm2

Question 19 1 mark [6.6]

By counting the number of cubes:  
Top layer = 10

Remaining squares = 4

V = 14 cm3

Question 20 2 marks [6.6]

V = lwh

= 5 × 6 × 7

= 210 cm3

Question 21 3 marks [6.6]

V = lwh  
108 = 9 × 6 × h  
h = 108 ÷ 54  
h = 2 cm

Rectangular prism sketched should have dimensions labelled:

9 cm, 6 cm, 2 cm

Short answer total: 29

Extended answer section

Question 22 4 marks [6.5]

Area of large square = l × w

= 424 × 424

= 179 776 mm2

Area of small square = l × w

= 200 × 200

= 40 000 mm2

Shaded area = area of large square – area of small square

= 179 776 – 40 000 = 139 776 cm2

Question 23 4 marks [6.5]

Divide the composite shape into 2 separate shapes using a horizontal line.  
Rectangle area  
= 80 × 30  
= 2400 cm2  
Triangle height  
= 70 – 30  
= 40 cm  
Triangle area  
=  × 80 × 40  
= 40 × 40  
= 1600 cm2  
Total area  
= 2400 + 1600  
= 4000 cm2

Extended answer total: 8

TOTAL test marks: 45