

Class: 6
Subject: Mathematics
Topic: Mensuration
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

- Q1. Find the area and perimeter of a rectangular plot of land whose length and breadth are 15.4 m and 6.5 m respectively.
- A. 100.10 sq. m, 43.8 m
B. 43.8 m, 100.10 sq. m
C. 4.38 m, 100.10 sq. m
D. 1001.10 sq. m, 4.38 m
- Answer: A

Solution:

$$\begin{aligned}\text{Area} &= \text{length} \times \text{breadth} \\ &= 15.4 \times 6.5 \\ &= 100.1\end{aligned}$$

$$\begin{aligned}\text{Perimeter} &= 2(l+b) = 2(15.4+6.5) \\ &= 2(21.9) = 43.8\text{m}\end{aligned}$$

- Q2. The total cost of flooring a room at Rs. 8.50 per sq. meter is Rs. 510. If the length of the room is 8 meters, find its breadth.
- A. 7.4 m
B. 7.5 m
C. 8.5 m
D. 5.8 m
- Answer: B

Solution:

$$\begin{aligned}\text{Area} &= \frac{\text{Total cost}}{\text{cost per m}^2} = \frac{510}{8.50} \\ \text{Length} \times \text{breadth} &= \frac{510}{850} \\ \text{Breadth} &= \frac{60}{8} = 7.5\end{aligned}$$

- Q3. A square and a rectangular plot of land have same perimeter, If the square is of side 40 m and rectangle is of length 5 da m. Then area of rectangle is
- A. 1500 m²
 - B. 1600 m²
 - C. 200 m²
 - D. 150 m²
- Answer: A

Solution:

Perimeter of square = perimeter of rectangular plot $4 \times 40 = 2(5 \times 10 + b)$
[1 dam = 10m] $b = 30$
Area = length x breadth = $30 \times 50 = 1500 \text{ m}^2$

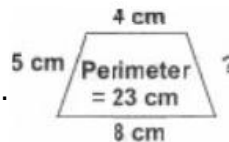
- Q4. The number of paving stones, each measuring 10 dm by 9 dm are required to pave a rectangular veranda 60 meters by 6 meters is
- A. 360
 - B. 400
 - C. 350
 - D. 300
- Answer: B

Solution:

Number of paving stones = $\frac{\text{area of rectangular veranda}}{\text{area of stone}} = \frac{60 \times 6 \times 10 \times 10}{10 \times 9} = 400$

- Q5. Find the missing length of the following figure.

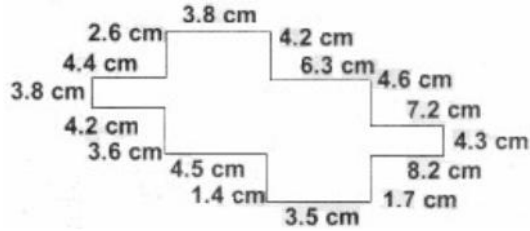
- A. 6cm
 - B. 4 cm
 - C. 2 cm
 - D. 5 cm
- Answer: A



Solution:

$5 + 4 + x + 8 = 23$ $x = 6 \text{ cm}$

Q6. Perimeter of the figure is



- A. 68.2 cm
 - B. 68.1 cm
 - C. 86.3 cm
 - D. 68.3 cm
- Answer: D

Solution: add all values.

Q7. How many envelopes can be made out of a sheet of paper 324 cm by 172 cm, if each envelope requires a piece of paper of size 18 cm by 12 cm?

- A. 258
 - B. 285
 - C. 528
 - D. 582
- Answer: A

Solution:

$$\text{No of envelopes} = \frac{\text{area of sheet}}{\text{area of each envelop}}$$

Q8. The perimeter of a rectangle is twice the of length and breadth of the rectangle.

- A. Difference
 - B. Sum
 - C. Product
 - D. Division
- Answer: B

Solution: Sum

Q9. If perimeter of a square is tripled, then area will be

- A. 4 times
- B. 1/4 times
- C. 9 times
- D. 1/9 times

Answer: C

Solution:

Perimeter tripled which means side is also tripled area will be $(\text{side})^2 = 9$ times.

- Q10. An athlete takes 5 rounds of a rectangular park, 50 m long and 250 dm wide. Then the total distance covered by him is
- A. 150 m
 - B. 75 m
 - C. 750 m
 - D. 300 m
- Answer: C

Solution:

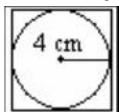
$$\begin{aligned}\text{Distance covered} &= 5 \times \text{perimeter} = 5 \times 2 [50 + 25] \quad (250 \text{ dm} = 25 \text{ m}) \\ &= 5 \times 150 = 750 \text{ cm}\end{aligned}$$

- Q11. In a square shaped park, whose side measures 28 m, a rectangular pond is located at the centre with dimensions 3 m and 2 m. The area of the park excluding the pond is
- A. 784 sq. m
 - B. 750 sq. m
 - C. 778 sq. m
 - D. 708 sq. m
- Answer: C

Solution:

$$\begin{aligned}\text{Area of park excluding pond} &= \text{area of park} - \text{area of pond} \\ &= 28^2 - 3 \times 2 \\ &= 784 - 6 \\ &= 778 \text{ m}^2\end{aligned}$$

- Q12. A circle is inscribed in a square as shown below. If the radius of the circle is 4cm, then the perimeter of the square is



- A. 28 cm
 - B. 24 cm
 - C. 32 cm
 - D. 36 cm
- Answer: C

Solution:

$$\begin{aligned}\text{Side of square} &= 2 \times 4 = 8 \text{ cm} \\ \text{Perimeter} &= 4 \times 8 = 32 \text{ cm}\end{aligned}$$

- Q13. If the length and breadth of a rectangle are doubled, then its perimeter is
- A. Tripled
 - B. Doubled
 - C. Halved
 - D. Four times
- Answer: B

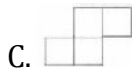
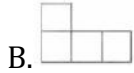
Solution:
Length and breadth are doubled perimeter becomes 2 times

- Q14. is expressed in square units.
- A. Perimeter
 - B. Area
 - C. Square
 - D. Rectangle
- Answer: B

Solution:

Fact

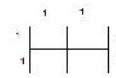
- Q15. All the figures below consist of the same four squares of equal size. Which figure has the smallest perimeter?



Answer: A

Solution:

Write 1 on each line segment on outer side as shown



and count in which

case there are minimum 1

- Q16. The length and breadth of a rectangular field are 260 m and 130 m respectively, and then its area in hectares is
- A. 338
 - B. 33800
 - C. 3.8
 - D. 3.38

Answer: D

Solution:

$$\text{Area} = 260 \times 130 \text{ m}^2$$

$$1 \text{ hectare} = 10^4 \text{ m}^2$$

So area will 3.38 hectare.

- Q17. A figure is formed by putting two squares one on the other as shown in the figure. If the length of each side of the two squares is 8 cm, then the perimeter of the formed figure is



- A. 56 cm
- B. 64 cm
- C. 32 cm
- D. 48 cm

Answer: D

Solution:

$$\text{Perimeter} = 6 \times \text{each side}$$

- Q18. The area of square is numerically equal to the perimeter of the square, then the side of square is
- A. 2
 - B. 3
 - C. 4
 - D. 5

Answer: C

Solution:

$$a^2 = 4a$$

$$a = 4$$

- Q19. If the area of the rectangle is 16 m^2 , then which dimensions may not be possible for rectangle.
- A. Length = 8 m, breadth = 2 m
 - B. Length = 16 m, breadth = 1 m
 - C. Length = 32 m, breadth = $\frac{1}{2}$ m
 - D. Length = 8.5 m, breadth = 2 m

Answer: D

Solution:

$$8 \times 2 = 16$$

$$16 \times 1 = 16$$

$$32 \times \frac{1}{2} = 16$$

$$8.5 \times 2 = 17 \neq 16.$$

Q20. Each side of a square field measures 85 m. The distance covered by a man going around the field 5 times is

A. 1600 m

B. 1800 m

C. 1500 m

D. 1700 m

Answer: D

Solution:

$$\text{Distance} = 5 \times \text{perimeter} = 5 \times 4 \times 85 = 1700 \text{ m}$$