1 LAKH + SELECTED ASPIRANTS CHOOSE SMARTKEEDA

NOW IT'S YOUR TURN!

2025 ACHIEVERS

BEST OF SMARTKEEDA

- Mock Tests
- CA Mockdrill
- Speed Drills
- Topic Tests
- Sectionals
- Smart Video Course

USE CODE **FEST25** for 10% OFF


Smartkeeda
presents
SPEED DRILLS
India's first tool to improve
SPEED & ACCURACY
in Bank Exams
Practice 40,000+ Ques in
(English | Reasoning | Quant)
Features:
Improve Speed and Accuracy
Unlimited no. of drills/quizzes
Detailed Explanation
AI Driven Analysis
Topic Wise Questions
Useful For
RRB Clerk | RRB PO| IBPS Clerk |
IBPS PO | SBI Clerk | SBI PO

Area questions for IBPS PO Pre Exams

Area Quiz 8

Directions : Read the following questions carefully and choose the right answer.

1. **From a rectangular sheet of length and breadth 20 cm and 10 cm respectively, a quarter circle of radius 7 cm is cut from a corner. What is the difference (in cm) between the perimeter of the two figures?**

   A. 36 B. 32 C. 28 D. 33 E. 42

2. **A rectangular park of dimensions 64 m × 90 m has a 2 m wide pathway running along its inner perimeter and a Basketball court of dimensions 30m × 18m inside the park. What is the area (in m^2) of the ground other than the pathway and court?**

   A. 4604 B. 4612 C. 4620 D. 4624 E. 4616

3. **A rectangular park of 120 meter length and 80 meter breadth has a footpath of width 2 meter inside it along the boundary. There is a project of constructing an interlock road on it. If the total cost of the project was Rs. 11,760, find the cost of construction per square meter.**

   A. Rs. 10 B. Rs. 15 C. Rs. 18 D. Rs. 20 E. Rs. 25

4. **A circle is made with a very thin wire of length 1320 cm. Another wire of same length is used to make a square. Find the ratio of area of circle to the area of the square.**

   A. 11 : 12 B. 14 : 11 C. 14 : 13 D. 1 : 1 E. None of these

5. **A square shaped cardboard has an area of 196 sq cm. A circular shaped piece is cut from it such that the area of the circular piece is the maximum. Find the ratio of perimeter of the square shaped cardboard before it was cut to the circumference of the circular cardboard.**

   A. 3 : 4 B. 5 : 8 C. 8 : 7 D. 11 : 9 E. 14 : 11

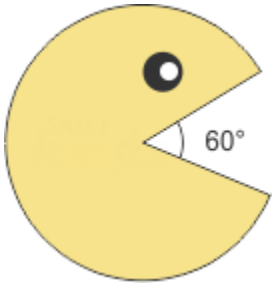
6. **ABCD is a rectangle with AB = 28 cm and BC = 25 cm and O is the middle point of CD. From the rectangle, a square of area $9cm^2$ from corner B, a semicircle with CO as diameter and a quarter circle with OD as radius are cut out. What is the perimeter (in cm) of remaining figure?**

A. 124 B. 108 C. 132 D. 94 E. 116

7. **A rectangular park has dimensions 48 m × 35 m. There is a 4m wide pathway along one of its inner length and a 3 m wide pathway along one of its breadth and both pathways meet at a corner, on the opposite corner there is a fountain in shape of a quarter circle with radius 14 m. What is the area (in m^2) of the park other than the pathway and the fountain?**

A. 1284 B. 1241 C. 1229 D. 1253 E. 1264

8. **Ajay designed a Pacman on a drawing paper as given in the image. The radius of largest circle is 42 cm, that of smaller circle is 10.5 cm and that of smallest circle is 3.5 cm. If Y, B and W represent the area of Yellow, Black and White area, what is the value (in cm^2) of (Y – B)?**



A. 4364.5 B. 4312 C. 3965.5 D. 4273.5 E. None of these

9. **A park has dimension 48 m × 32 m with two separate pathways of width 2m and 3m running parallel to its length and one 3m wide pathway running parallel to its breadth towards inside. What is the area (in m^2) of the ground?**

A. 1215 B. 1940 C. 1230 D. 1200 E. 1220

10. **A rectangular park of length 70 meter and breadth 45 meter has a footpath of width 5 meter along its outer boundary. There is a project of constructing a coal tar road on the footpath. If the total cost of the project was Rs. 12,000, find the cost of construction per square meter.**

A. Rs. 12 B. Rs. 10.4 C. Rs. 12.5 D. Rs. 9.6 E. Rs. 12.3

Correct Answers:

1	2	3	4	5	6	7	8	9	10
B	C	B	B	E	B	B	C	A	D

Explanation:

1.

Perimeter of remaining rectangle = $2 (L + B) - 2r + \frac{2\pi r}{4}$

Perimeter of quarter circle cut out = $2r + \frac{2\pi r}{4}$

Reqd. difference = $2 (L + B) - 2r + \frac{2\pi r}{4} - (2r + \frac{2\pi r}{4})$

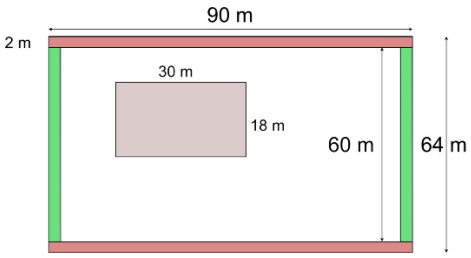
$= 2 (L + B) - 4r$

$= 2 (20 + 10) - 4 \times 7$

$= 32$ cm

Hence, option B is correct.

2.



Area of the park = $64 \times 90 = 5760$ m^2

Area of the basketball court = $30 \times 18 = 540$ m^2

Area of pathway = $(90 \times 2 + 60 \times 2) \times 2 = 600$ m^2

Area of ground = $5760 - 540 - 600 = 4620$ m^2

Hence, option C is correct.

3. Area of footpath = 120 × 80 – 116 × 76 = 784 sq m

Cost per square meter = $\frac{11760}{784}$ = Rs. 15

Hence, option B is correct.

4.

$\frac{22}{7}$ R = 1320 → R = 210 cm

Area of circle = $\frac{22}{7}$ × 210 × 210 = 22 × 30 × 210

Side length of the square = $\frac{1320}{4}$ = 330 cm

Area = 330 × 330

Ratio = 22 × 30 × 210 : 330 × 330 = 14 : 11

Hence, option B is correct.

5. Side length of the square cardboard = $(196 \text{ sq cm})^{1/2}$ = 14 cm

Radius of circle = $\frac{\text{side length of the square}}{2} = \frac{14}{2}$ = 7 cm

Circumference of the circular cardboard

= 2 × $\frac{22}{7}$ × 7 = 44 cm

Perimeter of square cardboard = 4 × 14 = 56 cm

Ratio = 56 : 44 = 14 : 11

Hence, option E is correct.

6. Perimeter of a circle = 2πr

Perimeter of the quarter circle with radius 14 cm

$= \frac{1}{4} \times \left(2 \times \frac{22}{7} \times 14\right) = 22$ cm

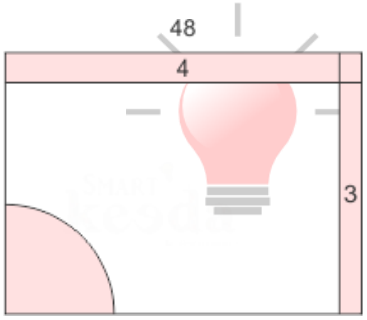
Perimeter of the arc of the semi circle with radius 7 cm

$= \frac{1}{2} \times \left(2 \times \frac{22}{7} \times 14\right) = 22$ cm

Total perimeter = 25 + 3 + 3 + 22 + 22 + 22 + 11 = 108 cm

Hence, option B is correct.

7.



Area of ground

$= 48 \times 35 - [48 \times 4 + 35 \times 3 - 3 \times 4 + \frac{1}{4} \times \frac{22}{7} \times 14 \times 14]$

$= 1241$ m^2

Hence, option B is correct.

8.

Area of White $= \frac{22}{7} \times 3.5 \times 3.5 = 38.5$ cm^2

Area of Black $= \frac{22}{7} \times (10.5)^2 - \frac{22}{7} \times (3.5)^2 = 308$ cm^2

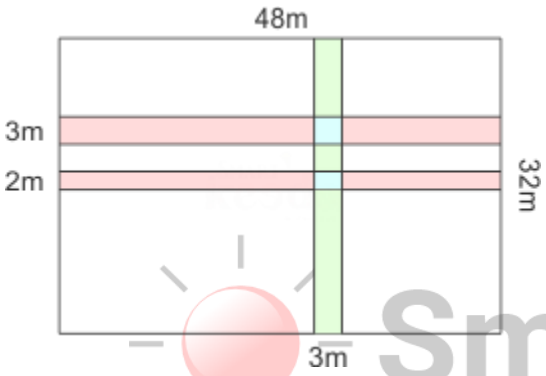
Area of Yellow

$= \frac{360 - 60}{360} \times \frac{22}{7} \times 42 \times 42 - (308 + 38.5) = 4273.5 \text{ cm}^2$

$Y - B = 4273.5 - 308 = 3965.5 \text{ cm}^2$

Hence, option C is correct.

9. Area of the ground = $48 \times 32 - (32 \times 3 + 48 \times 3 + 48 \times 2 - 3 \times 3 - 2 \times 3) = 1215 \text{ m}^2$



Hence, option A is correct.

10. Area of footpath = $80 \times 55 - 70 \times 45 = 1250$ sq m

Cost per square meter = $\frac{12000}{1250}$ = Rs. 9.6.

Hence, option D is correct.