CHAPTER-8 | Playing with Construction

QUIZ PART-13

1. What is the length of rectangle AB in the construction?
   A. 4 cm
   B. 6 cm
   C. 8 cm
   D. 10 cm (C)

Explanation : Step (i) says to draw line segment AB = 8 cm.

2. What is the length of sides AD and BC of the rectangle?
   A. 2 cm
   B. 4 cm
   C. 6 cm
   D. 8 cm (B)

Explanation: The construction marks AD = BC = 4 cm.

3. Which two diagonals are drawn to find the centre of the rectangle?
   A. AB and CD
   B. AD and BC
   C. AC and BD
   D. AO and BO (C)

Explanation: Step (ii) says to draw diagonals AC and BD.

4. The point of intersection of the diagonals is:
   A. E B. F
   C. O D. P (C)

Explanation: The diagonals meet at O, which is the centre of the rectangle.

5. Through point O, a perpendicular line meets AB and DC at:
   A. P and Q
   B. E and F
   C. S and R
   D. A and C (B)

Explanation : Step (iii) says the perpendicular through O meets AB at E and DC at F.

6. On AB, points P and Q are marked such that:
   A. AP = QB = 2 cm
   B. EP = EQ = 2 cm
   C. PQ = 2 cm
   D. AB = 2 cm (B)

Explanation : Step (iv) says P and Q are marked on AB so that EP = EQ = 2 cm.

7. On DC, points S and R are marked such that:
   A. DS = RC = 2 cm
   B. SF = RF = 4 cm
   C. FS = FR = 2 cm
   D. SR = 2 cm (C)

Explanation : Step (iv) says S and R are marked on DC so that FS = FR = 2 cm.

8. Which segments are joined to form the inner square?
   A. A to D and B to C
   B. S to P and R to Q
   C. E to F and P to Q
   D. A to C and B to D (B)

Explanation : Step (v) says to join S to P and R to Q.

9. Which line is erased in the final step?
   A. AC
   B. BD
   C. PQ
   D. FE (D)

Explanation : Step (v) clearly says to erase line FE.

10. Why is PQRS the required square?
    A. It lies outside the rectangle
    B. Its centre is the same as the rectangle's centre O
    C. All its sides are 8 cm
    D. Its diagonals are erased (B)

Explanation : The question asks for a square inside the rectangle with the same centre as the rectangle, and PQRS satisfies this.