

Board-ICSE

Class – 8<sup>th</sup>

Topic – Square and Square Root

## Section A: Multiple Choice Questions (1 mark each)

1. What is the square of  $-7$ ?  
(A) 49 (B)  $-49$  (C) 14 (D)  $-14$
2.  $\sqrt{529} = ?$   
(A) 23 (B)  $-23$  (C)  $\pm 23$  (D) None
3. Which of the following is a perfect square?  
(A) 98 (B) 144 (C) 150 (D) 200
4. The square of 6.5 is:  
(A) 39.25 (B) 42.25 (C) 40.75 (D) 36.25
5. How many non-perfect squares lie between  $12^2$  and  $13^2$ ?  
(A) 24 (B) 25 (C) 26 (D) 23

## Section B: Subjective Questions (2 marks each)

6. Without calculation, determine the square root of 0.0049.
7. Find the smallest number by which 720 must be multiplied to become a perfect square. Also, give the square root of the resulting number.
8. A square field has an area of  $8281 \text{ m}^2$ . Find the length of each side.

## Section C: Subjective Questions (3 marks each)

9. Using prime factorization, find  $\sqrt{1,396,225}$ .
10. If  $\sqrt{x} = 37.5$ , find the value of  $x$ . Also verify by squaring your answer.

## Section D: Problem Sums (4 marks each)

11. The sum of two consecutive positive integers is 212. Show if this sum is a perfect square. If yes, find the two numbers.
12. A gardener has 1400 plants and wants to plant them in a square grid (same number in each row and column).
  - Is 1400 a perfect square? If not, what is the nearest larger perfect square he can achieve?
  - How many extra plants does he need? Also, give the number of plants per side of the square.