B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

PERIODIC TEST-1 2025-26
MATHEMATICS

Class: IX | **Time: 1hr**
Date: 30.06.25 | **Max Marks: 25**
Admission no: | **Roll no:**

General Instructions:

1. This Question Paper has 3 Sections A, B and C.
2. Section A has 5 MCQs carrying 1 mark each
3. Section B has 4 questions carrying 02 marks each.
4. Section C has 4 questions carrying 03 marks each.
6. All Questions are compulsory.

SECTION A

1. If the decimal representation of a number is non-terminating, non-repeating then the number is — 1m

(a) an irrational number | (b) a natural number | (c) a rational number | (d) None of these

2. The square root of which number is rational — 1m

(a) 7 | (b) 1.96 | (c) 0.4 | (d) None of these

3. $(16)^{3/4}$ is equal to — 1m

(a) 2 | (b) 4 | (c) 8 | (d) None of these

4. What in the area of an equilateral triangle with side 2 cm? — 1m

(a) $\sqrt{6}cm^2$ | (b) $\sqrt{3}cm^2$ | (c) $\sqrt{8}cm^2$ | (d) None of these

5. An isosceles right triangle has an area of 8 cm^2. The length of its one of the sides other than hypotenuse is — 1m

(a) 4cm | (b) 2cm | (c) 8cm | (d) None of these

SECTION B

6. **Find the value of** **2m**
(a) $32^{1/5}$
(b) $100^{-1/2}$

7. **Find the area of a triangle two sides of which are 18 cm and 10 cm and the perimeter is 42 cm.** **2m**

8. **Insert four irrational numbers between 2 and 3.** **2m**

9. **Represent √5 on number line.** **2m**

SECTION D

10. **In a triangle ABC, AB = 15cm, BC = 13cm and AC = 14cm. Find the area of triangle ABC and hence its altitude on AC.** **3m**

11. **A traffic signal board, indicating 'SCHOOL AHEAD', is an equilateral triangle with side a. Find the area of the signal board, using Heron's formula. If its perimeter is 180 cm, what will be the area of the signal board?** **3m**

12. **Show that 0.33333… can be expressed in the form** $\frac{p}{q}$**.** **3m**

13. **Rationalise the denominator of** **3m**
(a) $\frac{1}{\sqrt{5}}$
(b) $\frac{1}{\sqrt{7}-2}$

******BEST OF LUCK******