B.K. BIRLA CENTRE FOR EDUCATION

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

PERIODIC TEST – 2 (2025)
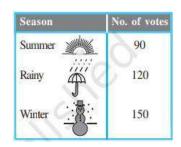**MATHEMATICS**

Class   : VIII   Duration: 1 Hr
Date   : 10-11-2025   Max. Marks: 25
Admission No.:   Roll No.:

General Instructions:

1. All Questions are compulsory.
2. There are 13 questions.

I.   **CHOOSE THE CORRECT ALTERNATIVE IN THE FOLLOWING.**   **5**

1. Marks obtained by 20 students of class VIII in Maths test are :
   24, 18, 14, 13, 12, 20, 24, 21, 17, 14, 7, 8, 19, 22, 13, 18, 23, 4, 21, 20.
   Range of the above data
   a) 20   b) 4   c) 3   d) None of these

2. The probability of getting a prime number on rolling a die is :
   a) $\frac{2}{3}$ b) $\frac{1}{3}$ c) $\frac{1}{2}$ d) $\frac{3}{4}$

3. The product of $18 x^2 y$ and $-5 x$ is
   a) $105 x^2 y$ b) $90 x^3$ c) $-90 x^3 y$ d) $75 x y$

4. Which of the following, the two expressions are like terms?
   a) 7x and 7y   b) 7x and 9x   c) 7x and $7x^2$ d) 7x and 7xy

5. The value of $x^2 - 4 x + 3$ when $x = 1$ is :
   a) 1   b) 2   c) -2   d) 0

II.   **SOLVE THE FOLLOWING**

6. Simplify : $7x$ ($6 x - 8$) + 15 and find its value when $x = 3$ **2**

7. a) Subtract : 4 a – 7a b + 3b + 12 from 12 a -9ab + 5b – 3   **2**

   b) Add : $2 p^2 q^2 – 3 p q + 4$, $8 + 7pq + 8 p^2 q^2$

8. A group of 360 people were asked to vote for their favourite season from the three
   seasons : rainy, winter and summer.   **2**
   (i) Which season got the most votes? (ii) Find the central angle of each sector.

9. A box contains 5 red marbles, 8 white marbles, and 4 green marbles. What is the probability of drawing a white marble? **2**

10. Simplify : a) $(x + y) (2x + y) + (x + 2 y) (x - y)$ **3**
    b) Find the product of : $2, 4y, 8y^2, 16y^3$

11. Simplify: i) $(2x + 5) (4x - 3)$ **3**
    ii) $(x + 7y) (7x - y)$

12. Numbers 1 to 10 are written on ten separate slips (one number on one slip), kept in a box and mixed well. One slip is chosen from the box without looking into it. What is the probability of **3**

   (i) Getting a number 6? (ii) Getting a number less than 6?

   (iii) Getting a 1-digit number?

13. Represent the following data by a pie chart **3**

Source of energy	Electricity	Solar	Gas	Oil
No . of houses	20	10	12	6

********** *ALL THE BEST* *************