



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: VIII
Date: 02.07.25
Admission no:

Time: 1 hr.
Max Marks: 25
Roll no:

General Instructions:

- This question paper consists of three sections
- Section A consists of multiple-choice questions of 1 mark each. Section B consists of 2 questions and Section C consists of 3-mark questions.
- Attempt all questions. All answers must be correctly numbered as in the question paper and written in the answer sheet.
- Write neatly and draw diagrams wherever necessary.

A. Choose the correct answer:

1 x 5 = 5

1. If x and y varies inversely as each other and $x = 4$ when $y = 16$. Find y when $x = 8$.
a) 6 b) 8 c) 4 d) none of these
2. $(4^{-1} + 6^{-1} + 8^{-1})^0$ is equal to
a) 1 b) 5 c) 3 d) 2
3. 12 76 00 00 00 000 is equal to
a) 1.276×10^{11} b) 1.276×10^{10} c) 1.276×10^{12} d) 1.276×10^8
4. If x and y are in direct proportion, then which of the following is correct ?
a) $x + y = \text{constant}$ b) $x - y = \text{constant}$ c) $x \times y = \text{constant}$ d) $\frac{x}{y} = \text{constant}$.
5. If the cost of 20 books is ₹ 120, then the cost of 40 books is
a) ₹ 190 b) ₹ 200 c) ₹ 198 d) ₹ 240

B. SOLVE THE FOLLOWING :

2 x 4 = 8

6. Simply and write in exponential form:

(i) $5^3 \times 5^7 \div 5^{-2}$

(ii) $(2^8 \div 2^5)^5 \times 2^{-5}$

7. A farmer has enough food to feed 40 animals in his cattle for 5 days. How long would the food last if there were 10 more animals in his cattle?

8. Find the value of m for which (i) $5^m \div 5^{-3} = 5^5$ (ii) $(-3)^{m+1} \times (-3)^5 = (-3)^7$

9. Express in usual form: a) 3.02×10^{-6} b) 4.5×10^4

C. Do as directed :

$$3 \times 4 = 12$$

10. A loaded truck travels 10 km in 20 minutes. If the speed remains the same, how far can it travel in 5 hours.
11. A batch of bottles were packed in 25 boxes with 12 bottles in each box. If the same batch is packed using 20 bottles in each box, how many boxes would be filled ?
12. Express in standard form:
a) 0.00 00 00 00 00 063
b) 5 02 00 000
c) 87 66 00 00 000
13. Find the value of : $\left(\frac{3}{2}\right)^{-2} + \left(\frac{1}{3}\right)^{-1} + \left(\frac{3}{1}\right)^{-2}$
