BK BIRLA CENTRE FOR DUCATION

SARALA BIRLA GROUP OF SCHOOLS

SENIOR SECONDARYCO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL

POST MID TERM EXAMINATION, (2025)

MATHEMATICS

Class : VIII
Date : 09-01-2025
Admission No.:

Duration: 1 Hr
Max. Marks: **25**
Roll No.:

General Instructions:

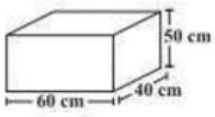
1. All Questions are compulsory.
2. There are 13 questions.

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

1. Common factor of $2x$, $3x^2$ and 4 is :
   a) 1 b) 2 c) 3 d) 4
2. $a^2 + 2ab + b^2$ is equal to :
   a) $(a + b)^2$ b) $(a - b)^2$ c) (a + b) (a – b) d) $a^2 - b^2$
3. The surface area of the cube of side 6 cm is :
   a) 144 cm^2 b) 24 cm^2 c) 216 cm^2 d) none of these
4. The area of the rhombus whose diagonals of length x and y is :
   a) xy b) $\frac{1}{2}xy$ c) $\frac{1}{3}xy$ d) $\frac{1}{4}xy$
5. Number of edges a cuboid has :
   a) 10 b) 12 c) 8 d) 4

II. SOLVE THE FOLLOWING

6. Factorise: i) $49x^2 - 36$ ii) $x^2 + xy + 8x + 8y$ **2**
7. Find the common factor of : $6abc$, $24ab^2$ and $12a^2b$ **2**
8. Find the curved surface area of the right circular cylinder whose height is 15 cm and radius of the base is 7 cm. **2**
9. Find the area of the rhombus whose diagonals are 40 cm and 50 cm. **2**
10. The area of the Trapezium is 34 cm^2 and length of one parallel side is 10 cm and its height is 4 cm. Find the length of other parallel side. **3**
11. There is a cuboidal box as shown in the following figure. Find the amount of material required to make? **3**



12. Factorise the following. **3**
    i) $16x^5 - 144x^3$ ii) $p^2 + 6p + 8$

13. Divide the following : **3**

i) $26\,x\,y\,(x+5)\,(y-4) \div 13\,x\,(y-4)$

ii) $5\,p\,q\,(p^2 - q^2) \div 2p\,(p+q)$

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