



# BK BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS  
SENIOR SECONDARY CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL  
POST MID TERM (2025)  
MATHEMATICS (041)



## MARKING SCHEME

Class : VIII

Date : 09 -01-2025

Duration: 1 Hr

Max. Marks : 25

I. MCQ ( 1 mark each )

- 1 ( A )
- $( a + b )^2$  ( A )
- 216 ( C )
- $x y$  ( A )
- 12 ( B )

6. i)  $( 7x )^2 - ( 6 )^2 = ( 7x + 6 ) ( 7x - 6 )$  1

ii)  $x ( x + y ) + 8 ( x + y )$   $\frac{1}{2}$   
 $( x + y ) ( ( x + 8 )$   $\frac{1}{2}$

7.  $6abc = 2 \times 3 \times a \times b \times c$   $\frac{1}{2}$   
 $24 ab^2 = 2 \times 2 \times 2 \times 3 \times a \times b \times b$   $\frac{1}{2}$   
 $12 a^2 b = 2 \times 2 \times 3 \times a \times b \times b$   $\frac{1}{2}$   
Common Factors =  $2 \times 3 \times a \times b$   $\frac{1}{2}$

8. CSA of Cylinder =  $2\pi r h$   $\frac{1}{2}$   
 $= 2 \times \frac{22}{7} \times 7 \times 15$   $\frac{1}{2}$   
 $= 660 \text{ cm}^2$  1

9. Area of Rhombus =  $\frac{1}{2} \times d_1 \times d_2$   $\frac{1}{2}$   
 $= \frac{1}{2} \times 40 \times 50$   $\frac{1}{2}$   
 $= 1000 \text{ cm}^2$  1

10. Area of the Trapezium =  $\frac{1}{2} ( b_1 + b_2 ) \times h$   $\frac{1}{2}$   
 $= \frac{1}{2} ( 10 + b_2 ) \times 4$   $\frac{1}{2}$   
 $34 \times 2 = ( 10 + b_2 ) \times 4$   $\frac{1}{2}$   
 $b_2 = 7 \text{ cm}$   $1 \frac{1}{2}$

11. Amount of material required =  $2 ( lb \times b \times h \times hl )$   $\frac{1}{2}$   
 $= 2 ( 60 \times 40 + 40 \times 50 + 50 \times 60 )$   $\frac{1}{2}$   
 $= 2 ( 2400 + 2000 + 3000 )$  1  
 $= 2 \times 7400$   $\frac{1}{2}$   
 $= 14800 \text{ cm}^2$   $\frac{1}{2}$

12. i)  $16 x^5 - 144 x^3 = x^3 ( 4 x )^2 - ( 12 )^2$   $\frac{1}{2}$   
 $= x^3 ( 4 x + 12 ) ( 4 x - 12 )$   $1 \frac{1}{2}$

$$\begin{aligned}
 \text{ii) } p^2 + 6p + 8 &= p^2 + 4p + 2p + 4 \times 2 && \frac{1}{2} \\
 &= p(p + 4) + 2(p + 4) && \frac{1}{2} \\
 &= (p + 4)(p + 2) && \frac{1}{2}
 \end{aligned}$$

$$\begin{aligned}
 13. \quad 26xy(x + 5)(y - 4) \div 13x(y - 4) &&& \frac{1}{2} \\
 = 2y(+5) &&& 1
 \end{aligned}$$

$$\begin{aligned}
 \text{ii) } 5pq(p^2 - q^2) \div 2p(p + q) &= 5pq(p + q)(p - q) \div 2p(p + q) && 1 \\
 &= 5q(p - q) \div 2 && \frac{1}{2}
 \end{aligned}$$

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