INDIAN SCHOOL AL WADI AL KABIR
Pre-Mid-Term Examination (2024-25)
Sub: MATHEMATICS
MARKING SCHEME

Class: VIII   Set -I   Max Marks: 30
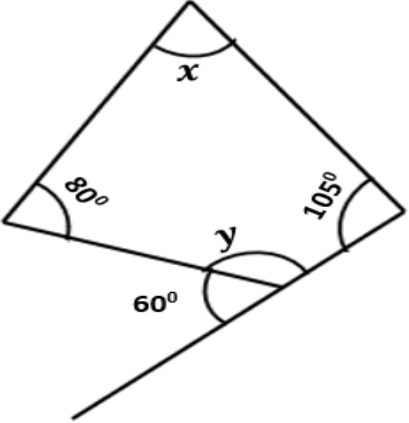
Date: 04/06/24   Time: 1 hour

	Section A: Multiple Choice Question (Q.1 to Q.6) of **1** mark each						
1.	$3 \times 10^5 + 1 \times 10^3 + 2 \times 10^2 + 5 \times 10^1 + 8 \times 10^0 + 2 \times 10^{-2}$ is equal to						
	A		**B**		**C**	**D**	301258.02
2.	The product of $\frac{13}{15}$ and additive inverse of $\frac{-5}{26}$						
	A		**B**		**C** $\frac{1}{6}$	**D**	
3.	The value of $\left\{ \frac{7}{5} \times \left(\frac{-3}{11} \right) \right\} + \left\{ \frac{7}{5} \times \frac{4}{11} \right\}$						
	A $\frac{7}{55}$		**B**		**C**	**D**	
4.	The angle sum of a convex polygon with number of sides 9 is:						
	A		**B**		**C** 1260	**D**	
5.	Name the property illustrated: $\frac{-35}{8} \times \frac{9}{11} = \frac{9}{11} \times \frac{-35}{8}$						
	A		**B** Commutative property		**C**	**D**	
6.	$\{2^6 \div 2^3\} + 2^0$ is equal to						
	A		**B** 9		**C**	**D**	
7.	If the three angles of a quadrilateral are 70°, 110° and 80°, then what is the measure of its fourth angle?						
	A		**B** 100°		**C**	**D**	
8.	The sum of all angles of a regular octagon is 1080^0. The measure of each interior angle is:						
	A		**B**		**C** 135^0	**D**	

Section B: Source based questions (Q.9 to Q.12) of 1 mark each

Teacher took the students of class 8 to the junior bio lab. It was a class related to view very small things through the micro scope and compare the size of the small objects which is visible through our eyes. While the experiment was going on Gourav, Neena and Bibin are started telling the numbers using powers and exponents.

9. The average diameter of a Red Blood cell is 0.0000072 m. The standard form 0.0000072 m is:

A	7.2×10^{-6}	B		C		D	

10. In an experiment they used $5^{-5} \, ml$ of solution A and $5^2 \, ml$ of solution B.
Then $\{5^{-5} \times 5^2\} =$ _____.

A		B		C		D	5^{-3}

11. A crystal of sodium chloride of weight 2^4 milligrams is used in the lab for an experiment. The multiplicative inverse of 2^4 is:

A	2^{-4}	B		C		D	

12. The size of the plant cell is 3.275×10^{-5}. The usual form the given number can be written as:

A		B	0.00003275	C		D	

Section C: Long Answer Questions (Q13 to Q.16)

13. Find the value of $'m'$ if $11^{2m+1} \times 11^4 = 11^{17}$ (Show working) (2m)

Ans: $11^{2m+1} \times 11^4 = 11^{17}$

2m + 1+4 =17   ($\frac{1}{2}$ mark)

2m +5 =17   ($\frac{1}{2}$ mark)

2m= 17-5   ($\frac{1}{2}$ mark)

m=12÷2 =6   ($\frac{1}{2}$ mark)

14.	Find the values of x and y. (Show working)	(2m)
Ans:	$y + 60$ =180(linear paper) y=180 − 60=120⁰ ------(1 $mark$) 120 +105 +80 +x=360(angle sum property) 305 + x=360 -------($\frac{1}{2}$ $mark$) x=360−305=55⁰ ------($\frac{1}{2}$ $mark$)	
15.	Simplify: $\dfrac{125 \times t^{-5} \times 3^{-3}}{5^2 \times 3^{-5} \times t^{-10}}$ $(t \neq 0)$	(3m)
Ans:	$\dfrac{125 \times t^{-5} \times 3^{-3}}{5^2 \times 3^{-5} \times t^{-10}}$ $=\dfrac{5^{3-2} \times t^{-5+10} \times 3^{-3+5}}{1}$ --------------[2 $marks$($\frac{1}{2}$ $mark$ $each$ law)] $=\dfrac{5^1 \times t^5 \times 3^2}{1} = 5 \times 9 \times t^5 = 45t^5$ ------($\frac{1}{2} + \frac{1}{2}$ $mark$)	
16.	Represent $\dfrac{-3}{5}, 0, \dfrac{1}{5}, \dfrac{2}{5}$ on the same number line.	(3m)
Ans:	Number line--------(1 mark) Each number---------($\frac{1}{2}$ marks each)	

Section D: Long Answer Question of 4 marks &Case study (Q.17 & Q.18)

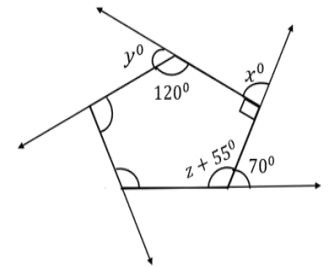| 17.	Insert 4 rational numbers between $\dfrac{5}{7}$ and $\dfrac{4}{5}$.
Ans:	$\dfrac{5}{7}$ and $\dfrac{4}{5}$ LCM =20 --------(1 mark) $\dfrac{25}{35}$ and $\dfrac{28}{35}$ Multiply by 10 --------(1 mark) $\dfrac{250}{350}$ and $\dfrac{280}{350}$ --------(1 mark) Ans: $\dfrac{251}{350}$, $\dfrac{252}{350}$, $\dfrac{253}{350}$ and $\dfrac{254}{350}$ --------(1 mark)
18.	**Case Study:** Shyama regularly go for an evening walk in a garden near seashore. In the garden there is a resting area which is in a pentagonal shape. Observe the adjoining figure and answer the following questions: a) Find the values of x, y & z b) How many diagonals does a pentagon have?
Ans:	a) $x = 180 - 90 = 90^0$(linear pair) --------(1 mark) $y = 180 - 120 = 60^0$(linear pair) --------(1 mark) $z + 55 + 70 = 180^0$ (straight angle) $z + 125 = 180^0$ $z = 180^0 - 125 = 55^0$ --------(1 mark) b)Number of diagonals in a pentagon= $\dfrac{n(n-3)}{2} = \dfrac{5(5-3)}{2} = \dfrac{5\times2}{2} = 5\ diagonals$ --------(1 mark) **********************