



Indian School Al Wadi Al Kabir

Pre Mid- term Exam 2026 - 27

Sub: Mathematics (Marking Scheme)

Class: X

Date: 20-05-2026

Max. Marks: 30

Time: 1 hour

	SECTION A	
1.	(D) $ab(1-ab)(1+ab)$	1
2.	(C) 	1
3.	(B) $-15x + 9y = 5$	1
4.	(C) 9	1
5.	(B) 7	1
6.	(A) -1	1
7.	(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).	1
	SECTION B	
8.	Adding the equations, $234x + 234y = 234 \Rightarrow x + y = 1$ Subtracting the equations, $48x - 48y = 144 \Rightarrow x - y = 3$ By elimination, $x = 2, y = -1$	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2} + \frac{1}{2}$
9.	Assuming $7 - 3\sqrt{5}$ to be a rational number. Let $7 - 3\sqrt{5} = \frac{a}{b}$ where a and b are integers & $b \neq 0$ $\Rightarrow \sqrt{5} = \frac{7b-a}{3b}$ Here RHS is rational but LHS is irrational. Therefore our assumption is wrong. Hence, $7 - 3\sqrt{5}$ is an irrational number. OR $12^n = (2 \times 2 \times 3)^n$ For units digit to be 0, 12^n should have 2 and 5 as its prime factors, but 12^n does not contain 5 as its prime factor. The uniqueness of the Fundamental Theorem of Arithmetic guarantees that there are no other primes in the factorisation of 12^n . Hence, it cannot end with the digit 0.	$\frac{1}{2}$ 1 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$

13.	Let present age of Meera and Neha be x years and y years respectively. Therefore, $x - 3 = 3(y - 3)$ or $x - 3y + 6 = 0$ and $x + 10 = 2(y + 10)$ or $x - 2y - 10 = 0$ Solving equations to get $x = 42, y = 16$ $\therefore$ Present age of Meera is 42 years and that of Neha is 16 years.		$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $(\frac{1}{2} + \frac{1}{2})$
SECTION D			
14.	(i)	$\alpha \times \frac{1}{\alpha} = \frac{8k}{2}$ $1 = \frac{8k}{2}$ $8k = 2$ $k = \frac{1}{4}$	$\frac{1}{2}$ $\frac{1}{2}$
	(ii)	$\alpha + \beta + \alpha\beta = \frac{-7}{2} + \frac{5}{2}$ $= \frac{-2}{2} = -1$	$\frac{1}{2}$ $\frac{1}{2}$
	(iii)	(a) $\alpha + \beta = 1$ $\alpha - \beta = 9$ $2\alpha = 10; \alpha = 5$ $\beta = -4$ $\alpha \beta = -k = -20; k = 20$ OR (b)sum of zeroes = $2 + (-3) = -1 = -(a + 1)$ $a + 1 = 1; a = 0$ product of zeroes = $2 \times -3 = -6 = b$	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ 1 1
15	(i)	$3x + y = 1600; 5x + 2y = 2900$	1
	(ii)	Consistent	1
	(iii)	(a) $x = 300, y = 700$ (b) Cost of 5 chairs = ₹ 1500	1+1

All the Best