



Indian School Al Wadi Al Kabir

Unit Test (2026-27)

Mathematics (Set 2)

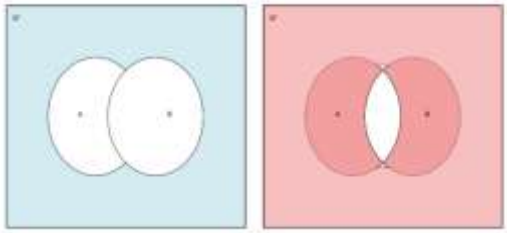
Class: XI

Date: 14.05.2026

Max. Marks: 30

Time: 1 Hour

ANSWER KEY

Q.1.	$D. \{1,2,4,6,8,12,16,24,48\}$	Q.2.	$(B). N C W C Z C Q C R$	Q.3.	D 256	Q.4.	$B. \{1,2,3,4,5\}$
Q.5.	D. $x = 5, y = 3$	Q.6.	D.R – $\{1,4\}$.	Q.7.	D		(7 x1=7)
Q.8.	$B - A = \{2,7,8,9\}$ 1 M $(B - A) \cup (A - B) = \{2,7,8,9\}$ 1 M	OR					
			(1M +1M)				
Q.9.	$f(1) + g(0) = 0$ 1M Domain of $\frac{f}{g}: \mathbb{R} - \left\{\frac{3}{4}\right\}$ 1M	Q.10.	$1 \text{ radian} = \frac{180}{\pi} \text{ degrees}$ 1 M $39^{\circ}22'30''$ 1 M				
Q.11	$(A \cap B)' = \{1,2,4,6,7,8,9,10\}$ 1.5 M $= A' \cup B'$ 1.5 M $(A \cup B)' = \{6,9,10\} = A' \cap B'$	Q.12	$D_1 = (-\infty, 25]$ 1 M $D_2 = (-\infty, -2) \cup (2, \infty)$ 1 M Intersection $D_1 \cap D_2$ $(-\infty, -2) \cup (2, 25]$ 1 M OR Domain = $[-10,10]$, 1 M Range = $[0,10]$, 1 M $f(8) + f(-6) = 14$ 1 M				
Q.13.	$\sin(-225^{\circ}) = \frac{\sqrt{2}}{2}$, 1M $\cos\left(\frac{17\pi}{4}\right) = \frac{\sqrt{2}}{2}$ 1M $\tan x = -\frac{5}{12}$ 1M	Q.14.	i) Venn Diagram ii) $n(B \cup F) = n(B) + n(F) - n(B \cap F)$ $n(U) - n(B \cup F) = 45 - 35 = 10$				2 M 1 M 1 M
Q.15.	i) $n(A \times B) = 15, n(K \times B) = 6$ 1 M ii) Not a function (3 maps to both 4 and 6) 1 M iii) Domain = $\{1,2,3,4\}$, Range = $\{4,7,9\}$ 2 M OR Domain = $\{0,3,6,9,12,15\}$ 1 M Range = $\{0,2,4,6,8,10\}$ 1 M						
