Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The sum of an infinite geometric series exist if	A. | r | < 1 B. | r | > 1 C. r = 1 D. r = -1
2	Question Image	
3	If $\sin\theta$ and $\cos\theta$ are the roots of the equation $ax^2 - bx + c = 0$, then a, b, c satisfy the relation	A. b²- a²= 2ac B. A²- b²= 2ac C. A²+ b²= c² D. B²+ a²= 2ac
4	Question Image	A. 7 B. 5 C. 6 D. None of these
5	$\tan^{-1}x > \cot^{-1}x$ holds for	A. x > 1 B. x < 1 C. x = 1 D. All values of x
6	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
7	The equation of vertical asymptotes of y = cos ecx is	A. x = 0 B. y = 0 C. x =∞ D. y =∞
8	Question Image	D. none of these
9	Question Image	A. 2 B. 4 C. 8 D. 12
10	A disjunction of two statement p and q is true	A. p is false B. q is false C. Both p and q are false D. One of p and q is true
11	The period of tan [x/3] is _____	A. 2π B. 4π C. 3π D. 5π
12	The set {Z\{0}} is group w.r.t	A. Addition B. Multiplication C. Division

		D. Subtraction
13	Question Image	
14	The first three terms in the expansion of $(1 + x)^3$ are	A. 1 + 3x +6x² B. 1- 3x + 6x²\ C. -3 -3x -6x² D. 1- 3x -6x²
15	Second derivative of $y = x^9 + 10x^2 + 2x - 1$ at $x = 0$ is	A. 10 B. 20 C. 12 D. 1
16	Question Image	
17	Question Image	C. 0 D. 1
18	The number of x-intercepts of y= sin x in his period	A. 0 B. 1 C. 2 D. 3
19	The quadratic equation 8 sec2θ - 6 secθ +1 =0 has	A. Infinitely many roots B. Exactly two roots C. Exactly four roots D. No roots
20	I is not	A. Real number B. Natural number C. Prime Number D. Whole Number