Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	If distance of (a,b) from origin is 5 then	A. $a^2 + b^2 = 5$ B. a = 5 C. b = 5
2	Question Image	A. A B. A' C. U D. None of these
3	An expression involving any of the symbols <,>,≤ or ≥ is called	A. equation B. inequality C. linear equation D. identity
4	Domain of tangent function is	
5	A non-homogeneous linear system AX = B has no solution if	A. $\|A\| = 0$ B. $\|A\| \neq 0$ C. Rank (a) = no of variables D. Rank > no of variables
6	The sum of all odd numbers between 100 and 200 is	A. 6200 B. 7500 C. 6500 D. 3750
7	e-radii are denoted by	A. η B. r2 C. r3 D. All of these
8	If $z_1 = 1 + 2i$, $z_2 = 3 + 4i$ then	A. $z_1 > z_2$ B. $z_1 = z_2$ C. $z_1 < z_2$ D. None of these
9	$f(x) = 2^x + 3 \cdot 2^{2x} + 5$ is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
10	The vertex of the equation $y^2 = 4ax$ is:	A. (2, -2) B. (1,1) C. (0 , 0) D. (2 , 2)
11	{1, 2, 3} is _____	A. an infinite set B. A finite set C. A singleton set D. Universal set
12	r + 3 >5 then which is true	A. r + 2 > 4 B. r + 2 < 4 C. r + 2 = 4 D. None
13	What is the conjugate of -7 -2i?	A. -7 + 2i B. 7 + 2i C. 7 -2i D. None of these
14	The middle term(s) of (a+x)11 is	A. 6th term B. 6thor 7th C. 7th term D. 6thand7th
15	A bag contains 5 white, 7 red and 5 black balls. If four balls are drawn one by one with replacement, the probability that none is white is	A. $(11/16)^2$ B. $(5/16)^2$ C. $(11/16)^4$ D. $(5/16)^4$

16	Question Image	A. 0 B. -1 C. 1/2 D. 1
17	Question Image	B. $\ln(x^2 - x + 1) + c$ D. $\ln(2x - 1) + c$
18	Range of 2 tan x is _____	A. [-2, 2] B. -1 < x < 1 C. R D. None of these
19	The domain of y =√(x^2-9) is	A. R B. (0 , +∞) C. (-∞ , -3) ∪ (3 , +∞) D. (0 ,∞)
20	f(x) = sin x + $\cos^2 x$ is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function