Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The line y= 4x +c touches the hyperbola $x^2 - y^2 = 1$ if and only if	A. $c = \pm\sqrt{2}$ B. $c = 0$ C. $c = \pm\sqrt{17}$ D. $c = \pm\sqrt{15}$
2	The roots of the equations will be equal if $b^2 - 4ac$ is	A. Positive B. Negative C. 1 D. Zero
3	Question Image	
4	Two circle $x^2 + y^2 + 2x - 8 = 0$ and $x^2 + y^2 - 6 + 6x - 46 = 0$:	A. touch internally B. do not intersect C. touch externally D. None of these
5	Area of inscribed circle is	A. $\pi R2$ B. $\pi \eta2$ C. $\pi r22$ D. $\pi r2$
6	Question Image	
7	The A.M. of two numbers is 34 and G.M. is 16, the numbers are	A. 2 and 64 B. 64 and 3 C. 64 and 4 D. None of these
8	The slope of the normal at (4,3) to the circle $x^2 + y^2 = 25$ is	A. 3/4 B. -3/4 C. 4/3 D. -4/3
9	The third term of a G.P. is the square of first term. If the second term is 8, then the 6th term is	A. 120 B. 124 C. 128 D. 132
10	$f(x) = \sin x + \cos^2 x$ is	A. trigonometric function B. algebraic function C. exponential function D. logarithmic function
11	Question Image	A. -1 B. 0 C. 1 D. undefined
12	The set {1,-1, i, -i} form a group under	A. Addition B. Multiplication C. Subtraction D. None
13	Question Image	A. k3 B. 0 C. 3k D. k6
14	The 60th part of one minute is called	A. Degree B. Second C. Radiam D. None of these
15	If P, Q, R be the A.M., G.M., H.M. respectively between any two rational numbers a and b, then P - Q is	
16	Question Image	A. 1 B. 2 C. 0 D. 4
17	Which of the following us a scalar	A. displacement B. velocity C. acceleration

18	If in the expansion of $(1+x)^n$, co-efficients of 2nd, 3rd and 4th terms are in A.P., then x=	A. 4 B. 5 C. 6 D. 7
19	Question Image	A. 110 B. 220 C. 1320 D. None of these
20	An equation in which at least one term contains dy/dx, $d^2 y /dx^2$ etc, is called.	A. Differential equation B. Initial condition C. General solution D. Singular equation