Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Domain of cot x is _____	
2	The solution set of the equation $\tan^{-1}x - \cot^{-1}x = \cos^{-1}(2 - x)$ is	A. [0, 1] B. [-1, 1] C. [1, 3] D. None of these
3	Question Image	
4	Question Image	
5	Question Image	A. π / 4 B. π / 6 C. π / 3 D. 0
6	f(x) = sin x is:	A. an odd function B. an even function C. an implicit function D. an exponential function
7	Question Image	A. A = x, B = 1 B. A = 0, B = 2 C. A = -1, B = 1 D. A = x-1, B = x + 1
8	The radius of the circle $2x^2 + 2y^2 - 4x + 12y+11=0$ is:	A. √4.5 B. √11 C. √29 D. √15
9	Question Image	
10	Intersection of two parabolas	A. parabola B. Two points C. Four points D. Hyperobla
11	If $\underline{u} = 2\underline{i} + p\underline{i} + 5\underline{k}$ and $\underline{v} = 3\underline{i} + \underline{i} + p\underline{k}$ are perpendicular , then p=	A. 1 B. 2 C. -1 D. -3
12	Sand falls from a tube in such a way that it forms a cone whose height is always 4/3 times the radius of its base and radius of the base increases at the rate of 1/8 cm/sec. When this radius is 1 meter, the rate at which the amount of sand increases is	
13	If a,b c are sides of a triangle taken in order then a x b =	A. b x c B. b x a C. cxa D. Both a & b
14	The roots of px2 - (p-q)x-q=0 are	A. equal B. Irrational C. Rational D. Imaginary
15	If a tangent line touches the function y = f (x) in more than one point then y = f (x) is	A. Periodic B. Surjective C. Bijective D. Injective
16	The graph of y> 0 is the upper - half of:	A. y-axis B. x-axis C. 1st and 4th quandrant D. 2nd and 3rd quadrant
17	Question Image	A. (1, 3) B. (-1, -3) C. (1, -3) D. (-1, 3)

18	The point which divides the line joining the points (2, 4, 5) and (3, 5, -4) in the ratio -2 : 3 lines on	A. ZOX plane B. XOY plane C. YOZ plane D. None of these
19	If y = 2x , then	A. y1 -ln2y = 0 B. y2-(ln2)2 y = 0 C. y2-(ln2)y1 = 0 D. All are correct
20	The line joining the center of a circle to the midpoint of the chord is	A. Perpendicular to the tnagent B. Perpendicular to the normal C. Perpendicular to the chord D. Perpendicular to the chord