Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	
2	The set (Q, .)	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
3	Which one is not defined $\forall n \in Z+$	A. -n! B. n! C. (-n)! D. n!+0!=n!+1
4	An airplane flying at height of 300 meters above the ground passes vertically above another plane at an instant when the angle of elevation of the two planes from the same point on the ground are 60° and 45° respectively. Then the height of the lower plane from the ground is (in meters).	
5	(a, b) + (-a, -b) =	A. (0,0) B. (a, b) C. (-a, -b) D. (1, 1)
6	Graph of the question $x^2+ y^2= 4$ is	A. A circle B. An ellipse C. A parabola D. A square
7	Name the property used in 4 x (5 x 8) = (4 x 5) x 8	A. Associative property of addition B. Associative property of multiplication C. Additive identity D. Multiplicative identity
8	If A(a,b) lies on 3x +2y =13 and point B(b,a) lies on x-y =5 then equation of AB is	A. x- y= 5 B. x+ y+ =5 C. x+ y= -5 D. 5x +5y =21
9	Cos^{-1} 12/13 =	A. tan⁻¹ 3/5 B. cot⁻¹ 13/12 C. Sec⁻¹ 13/12 D. sin⁻¹ 5/13
10	The middle term of $(x-y)^8$is	A. 25 x⁴y⁴ B. 70 x⁴y⁴ C. 120 x⁴y⁴ D. 97x⁴y⁴
11	The surface generated by lines, consists of two parts, called:	A. vertex B. apex C. nappes D. axis
12	The equation of the circle with centre (5, -2) and radius 4 is	A. (x-5)²+ (y+2)²= 16 B. (x-5)²+ (y+2)²= 4 C. (x-5)²+ (y-2)²= 16 D. (x-5)²+ (y-2)²= 4
13	Which is not a half plane	A. ax + by < c B. ax + by > c C. Both A and B D. None
14	If a_1, r and $a_n$are the first term, common ratio and the nth term respectively of a G. P. then a_n=	A. a₁rⁿ B. a₁rⁿ⁻¹ C. a₁rⁿ⁺¹ D. a₁r
15	$(x^3-1/2x)^6$ is	A. 15/16 x² B. 2/13 x² C. 17/7 x²

		D. 16/15 x²
16	Question Image	D. none of these
17	Question Image	
18	The equation of vertical asymptotes of y = cos ecx is	A. x = 0 B. y = 0 C. x =∞ D. y =∞
19	p, q, r and s are integers. If the A.M. of the roots of x2- px + q2= 0 and G.M. of the roots of x2- rx + s2= 0 are equal, then	A. q is an odd integer B. r is an even integer C. p is an even integer D. s is an odd integer
20	The sum of first twenty odd integers in A.P is	A. 400 B. 397 C. 404 D. 408