Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	Question Image	A. I and III quadrants B. II and III quadrants C. I and II quadrants D. II and IV quadrants
2	If $\|\alpha i + (\alpha+1)j + 2k\| = 3$ then value of α is	A. 1,2 B. -1,-2 C. 1,-2 D. -1,2
3	The maximum value of the quadratic function f(x) = -2x2+20x,is	A. 4 B. 3 C. 50 D. 7
4	To express a single rational fraction as a sum of two or more single rational fractions which are called	A. improper fractions B. Partial fractions C. mixed form D. Polynomials
5	Question Image	
6	A and B be two square matrices and if their inverse exist, the $(AB)^{-1}$=	A. A⁻¹B⁻¹ B. AB⁻¹ C. A⁻¹B D. B⁻¹A⁻¹
7	Question Image	
8	A person standing on the bank of a river observes that the angle of elevation of the top of a tree on the opposite bank of the river is 60° and when he retires 40 meters away from the tree the angle of elevation becomes 30°. The breadth of the river is	A. 40 m B. 30 m C. 20 m D. 60 m
9	Every natural number is	A. A prime number B. An irrational number C. An integer D. An even number
10	Question Image	
11	x = _____ is in the solution of 2x - 3 < 0	A. 2 B. -2 C. 3 D. 4
12	If distance between (3,b) and (0,0) is 3 then b = _____	A. 3 C. 9 D. 0
13	The range of the function f : x→ y is defined by	A. {x| y = f (x) ∀x∈ X ∧y∈y} B. {(x,y) |y = f (x)∀x∈ X} C. {y|y = f (x) ∀x∈ X ∧y∈y} D. Y
14	The multiplicative inverse of 0 is	A. 1 B. -1 C. 0 D. Does not exist
15	A non-homogeneous linear system AX = B has no solution if	A. |A| = 0 B. |A|≠ 0 C. Rank (a) = no of variables D. Rank > no of variables
16	Question Image	
17	If the pth, qth, and rth terms of an A.P. are in G.P:., then the common ratio of the G.P. is	
18	In one hour, the minute hand of a clock turns through	
19	If the expansion of $(1 + x)^{20}$, then co-efficient of rth ad (r + 4)th term are equal, then r is	A. 7 B. 8 C. 9

		D. 10
20	If $s = 2t^3 - 3t^2 + 15t - 8$ is the equation of motion of a particle, then its initial velocity is	A. 8 B. 15 C. -6 D. None