GAT Subject Mathematics MCQ's Test

Sr	Questions	Answers Choice
1	The value of Cos (1/2 Cos^{-1} 1/2) is equal to	A. √3/2 B. -3/4 C. 1/16 D. 1/4
2	If f_1 (x) and f_2 (x) are any two anti derivatives of a function F (x) then the value of f_1 (x) = f_2 (x)	A. A variable B. A constant C. Undefined D. Infinity
3	AreCot √3 =?	A. π/2 B. π C. 2π D. π/6
4	A function F(x) is called even if	A. F(x) = F(-x) B. F(x) = F(-x) C. F(x) = -F(x) D. 2F(x) = 0
5	If 0 is not an integral multiple of π/2 then Cot^4 θ+ Cot^2 θ=?	A. Cosec⁴ θ - Cosec²θ B. Tan θ - Tan² θ C. Cosec² θ + Cosec θ D. Sinθ Cosθ
6	The parametric equation of a curve are x = t^2, y = t^2 then	A. dy/dx =3t/2 B. dy/dx =t⁵ C. dy/dx =5t⁴ D. None
7	Two matrices A and B are conformable for multiplication (AB) if and only if	A. Addition B. Multiplication C. Division D. Subtraction
8	If k_1 : k_2 = 1:1 then the point P dividing the line is	A. Mid point B. Extreme left point C. Extreme Right point D. Plies out side k₁ and k₂
9	Every prime number is also	A. Rational number B. even number C. Irrational number D. multiple of two numbers
10	What is the domain of y = Cot^{-1} x?	A. Set of irrational numbers only B. Set of all real numbers C. Set of integers only D. Set of complex numbers only
11	Which of the following is not defined?	A. Arcsin 1/9 B. ArcCos (-4/3) C. Arctan 11/12 D. Arccot (-4)
12	x is a member of the set {-1,0,3,5} y is a member of the set {-2,1,2,4} which is possible?	A. x- y =-6 B. x -y < -6 C. x -y > 6 D. None
13	If f(x) = x^3- $2x^2$ +4x-1, then f(-2) =?	A. 0 B. -25 C. 5 D. 45
14	In general matrices do not satisfy	A. Not a group B. A group w.r.t. subtraction C. A group w.r.t. division D. A group w.r.t. multiplication

15	Find the geometric mean between 4 and 16	A. 7, 8 B. 14, 4 C. 28, 2 D. 56, 1
16	The vertices of the ellipse $x^2 + 4y^2 = 16$ are	A. (±,4,0) B. (0,±,4) C. (± 2,0) D. (0,± 2)
17	6 is	A. A prime integer B. An irrational number C. A rational number D. A odd integer
18	$1/x^2 -1$ = ? (in case of making partial fraction)	A. Ax +B/x² -1 B. A/x + B/ x- 1 C. A/ x+1 + B/x-1 D. None
19	The complement of set A relative to universal set U is the set	A. X B. X C. φ D. Universal set
20	If f(x) : A → B and g (x) : A → B then Dom [f(x) + g(x)] is	A. Dom f(x) ∩ Dom g (x) B. Dom f(x) ∪ Dom g(x) C. [Domf(x)]² - [Dom g(x)]² D. [Dom g(x)]²-[Domf(x)] ²