GAT Subject Mathematics MCQ's Test

Sr	Questions	Answers Choice
1	If Sin θ =Cosθ then θ=	A. 30° B. 45° C. 60° D. 90°
2	The curves y =x^2, y= x interest at	A. (0,0) ,(1,1) B. (2,4) C. (0,),(2,4) D. (0,3),(-1,1)
3	If x^2 +y^2 = 4, Then dy/dx =	A. 2x +2y B. 4 -x² C. -x/y D. y/x
4	x^2 +2x -25 = 0 is	A. 1 B. 2 C. 3 D. 4
5	8 > t then	A. (s -t) ²>(t -8) ² B. (s -t) ²<(t -8) ² C. (s -t) ²=(t -8) ² D. None
6	The associative angle of 280^o is	A. 100^o B. 10^o C. 80^o D. -80^o
7	A relation in which the equality is true only for some values of the unknown variable is called	A. An identity B. An equation C. A polynomial D. Inverse function
8	Which is not included in the domain of Cos^{-1} x	A. 0 B. 1 C. -1 D. 2
9	In a school, there are 150 students. Out of these 80 students enrolled for mathematics class, 50 enrolled for English class, and 60 enrolled for Physics class. The student enrolled for English cannot attend any other class, but the students of mathematics and Physics can take two courses at a time. Find the number of students who have taken both physics and mathematics.	A. 40 B. 30 C. 50 D. 20
10	If α and β be irrational roots of a quadratic equation, then	A. α = b/a and β = ca B. α = a/b and β = -c/a C. α² + β² = 1 D. α = -b/a and β= c/a
11	An angle 0 is such that tan θ = 1 and cos θ is negative then	A. Sin θ is positive B. Cos θ = √2/4 C. cosθ = -1 D. sec θ is negative
12	Cot 360° =_____.	A. Undefined B. 0.707 C. -0.5 D. 0
13	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
14	If sinθ = 1 then θ =	A. 2nπ +π/2 B. 2nπ C. 2π +n D. Nπ +π/2

15	The set of the first elements of the ordered pairs forming a relation is called its	A. -x B. does not exist C. 1/x D. 0
16	The equation of two polynomials P(x)/Q(x) where Q(x) ≠ 0 with no common factor is called	A. 12 B. 1 C. 10 D. -10
17	What is the period of Cot x?	A. 2π B. π C. π/2 D. 4π
18	Cos 315° =	A. 0.707 B. 0.5 C. 1 D. 0
19	The fifth term of the sequence $a_n = 3n - 2$ is	A. 3 B. -3 C. 13 D. -13
20	d/dx a^x is	A. xa^{x-1} B. a^x C. x in a D. a^x in a