GAT Subject Mathematics MCQ's Test

Sr	Questions	Answers Choice
1	For which of the following ordered pairs (s,t) is s + t> and s- t < -3?	A. (3,2) B. (2,3) C. (1,8) D. (0,3)
2	If the diagonal of a square has coordinates (1,2) and(5,6) the length of a side is	A. 3 B. 4 C. 1 D. 5
3	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
4	If Sin θ =Cosθ then θ=	A. 30° B. 45° C. 60° D. 90°
5	An m x n matrix is said to be rectangular if	A. Forms a group w.r.t. addition B. Non commutative group w.r.t. multiplication C. Forms a group w.r.t. multiplication D. Doesn't form a group
6	Two matrices A and B are conformable for multiplication (AB) if and only if	A. Addition B. Multiplication C. Division D. Subtraction
7	The sum of the series 1+5+9+13+17+21+25+29 is:	A. 10 cm B. 20 cm C. 30 cm D. 40 cm
8	Period is Tan x/5 is	A. 5π B. 4π C. 2π D. π/5
9	Write the first four term of the arithmetic sequence if a_1 = 5 and other three consecutive terms are 23,26,29	A. 18 years B. 36 years C. 8 years D. 16 years
10	If y = $(ax)^m + b^m$, then dy/dx equals	A. m (ax) ^m x^{m-1} B. ma^m x^{m-1} C. m a^m x^{m-1} D. m a^m x^{m-2}
11	Sin-1 (√2/2)=?	A. π/2 B. π/3 C. 3π/4 D. 2π
12	The angle a (0° < a< 180°) measured counterclockwise from positive x-axis to a non-horizontal straight line / is called the	A. Rotation B. Inclination C. Radian D. None
13	The sum of the interior angles for a 16 sided polygon is	A. 0 B. ω C. 1 D. 1 / ω
14	If Z_1 = √-36, Z_2=√-25, Z_3= √-16, then what is the sum of Z_1, Z_2 and Z_3 ?	A. √3 I B. √7 C. -2-1

		D. √5
15	The axis of the parabola $y^2 = 4ax$ is	A. x =0 B. Y =0 C. X = y D. X = -y
16	The circle $(x-2)^2 + (y+3)^2 = 4$ is not concentric with the circle	A. (x -2)² + (y + 3)² =9 B. (x +2)² + (y - 3)² =4 C. (x -2)² + (y + 3)² =8 D. (x -2)² + (y + 3)² =5
17	Which of the following is the solution of $Cot^2x = 1/\sqrt{3}$	A. π/5 B. π/3 C. π/7 D. π/9
18	The value of the polynomial $3x^3 + 4x^2 - 5x + 4$ at x = -1 is	A. A² + B² B. A² + B²+ 2AB C. A + B D. A² + B² + AB+BA
19	The common difference of the sequence 7,4,1.....is	A. 1 B. -3 C. 5 D. 0
20	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