GAT Subject Mathematics MCQ's Test

Sr	Questions	Answers Choice
1	If x lies in {0, 2π} and Cosec x = 2 then x =	A. π/ 6 and 5π/6 B. π +2nπ C. nπ D. 2π/3 and π/3
2	The value of x, and y, when $(x+iy)^2=5+4i$	A. X=2, y=-1 B. X=-2, y=1 C. X=2, y=-i D. X=2, y=2
3	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
4	Domain of Cosecθ is	A. is R but θ= nπ B. is R but θ ≠ nπ C. is R but θ ≠ 2nπ D. is R but θ ≠ nπ/2
5	The total cost of 2 apples and 3 oranges is $1.70,which of the following is true	A. The cost of one apple B. The cost of one orange C. Both have equal cost per item D. Cost of each single item can not be determined
6	If in isosceles right angled triangle one side is a then hypotenuse is	A. a√2 B. a/2 C. a D. Cannot be determined by given
7	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
8	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
9	The set of all positive even integers is	A. Φ B. {1,2,3} C. {Φ} D. {0}
10	d/dx (√x) =	A. 2√x B. 1/√x C. 1/2√x D. None of these
11	AreCot √3 =?	A. π/2 B. π C. 2π D. π/6
12	What is the conjugate of -7 -2i ?	A. -7 + 2i B. 7 + 2i C. 7-2i D. √53
13	Period of Sin 2x =	A. π B. 4π C. 2nπ D. 2π
14	d/dx a^x is	A. xa^{x-1} B. a^x C. x in a D. a^x in a
		A. x² + y² =

15	The equation of the circle with center origin and radius $2\sqrt{2}$ is	$2\sqrt{2}$ B. x² + y² = 8 C. x² - y² = $2\sqrt{2}$ D. x² - y² = 8
16	The gradient of the line joining (1,4) and (-2,5) is	A. 3/8 B. -2 2/3 C. -1/3 D. 2
17	Area of ΔABC=	A. ab sin α B. 1/2 ab sin α C. 1/2 ac Sin γ D. 1/2 ac Sin β
18	One of the roots of the equation $2x^2 + 3x + n = 0$ is the reciprocal of the other, then n = ----------	A. Both A,B have the same number of columns B. Both A,B do not have the same order C. Number of col A is same as number of rows of B D. Number of rows of A is same as number of col of B
19	Which is not a half plane	A. ax + by < c B. ax + by > c C. Both A and B D. None
20	If a cone is cut by a plane perpendicular to the axis of the cone then the section is a	A. Parabola B. Circle C. Hyperbola D. Ellipse