NAT I Engineering Mathematics

Sr	Questions	Answers Choice
1	Which of the following is not defined?	A. Arcsin 1/9 B. ArcCos (-4/3) C. Arctan 11/12 D. Arccot (-4)
2	Cos^{-1} (-x) =_____.	A. π +cos⁻¹ x B. π -sin⁻¹ x C. π +sin⁻¹ x D. π -cos⁻¹ x
3	The Domain of f(x) = log x is	A. [0,∞] B. (0, ∞) C. [0,∞[D. [∞ ,∞]
4	The end points of the major axis of the ellipse are called its	A. foci B. Vertices C. Co-vertices D. eccentricity
5	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
6	The graph of a quadratic function is	A. Circle B. Ellipse C. Parabola D. Hexagon
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	The associative angle of 280^o is	A. 100^o B. 10^o C. 80^o D. -80^o
9	The equation of the circle with center origin and radius $2\sqrt{2}$ is	A. x² + y² = 2√2 B. x² + y² = 8 C. x² - y² = 2√2 D. x² - y² = 8
10	The number of ways in which we can courier 5 packets to 10 cities is	A. 2 x 5^o B. 5¹⁰ C. 10⁵ D. 2¹⁰
11	A standard deck of 52 cards shuffled what is the probability of choosing the queen of the diamonds	A. 1/5 B. 1/13 C. 5/52 D. 1/52
12	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
13	Sin-1 [-1/2] = _____.	A. ∏/3 B. -∏/6 C. -∏/3 D. ∏/6
14	The center of a circle of radius 10 is on the origin which of the following points lies with in the circle	A. (10,0) B. (8,8) C. (8,4) D. (0,10)

15	If 1 + Cos x = 0 then x =	A. π +2n π B. π + nπ C. π - nπ D. π/2
16	The number of real roots in cube roots of 8 is ?	A. n x m B. m x n C. km x n D. m x kn
17	Every prime number is also	A. Rational number B. even number C. Irrational number D. multiple of two numbers
18	If Cosα = 3/5, Cosβ = 5/13, then	A. Cos(α +β) =33/65 B. Sin(α +β) =56/65 C. sin²(α +β/2) =1/65 D. Cos(α +β) =63/65
19	The common difference of the sequence 7,4,1.....is	A. 1 B. -3 C. 5 D. 0
20	ω^{88} = ?	A. A and B are multiplicative inverse of each other B. A and B are additive inverses of each other C. A and B are singular matrices D. A and B are equal