NAT I Engineering Mathematics

Sr	Questions	Answers Choice
1	If Sin θ =Cosθ then θ=	A. 30° B. 45° C. 60° D. 90°
2	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
3	In the figure PS is perpendicular to QR, if PQ = PR 26 and P8 = 24,then QR=	A. 10 B. 20 C. 40 D. 26
4	If the order of A is n x m. Then order of kA is	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
5	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
6	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
7	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
8	If sinθ = 1 then θ =	A. 2nπ +π/2 B. 2nπ C. 2π +n D. Nπ +π/2
9	If sin θ= 3/5 Cos θ=	A. 1/2 B. 3/5 C. 4/5 D. 1
10	If -1 < x < 0, which of the following statement must be true?	A. x < x² < x² B. x < x³ < x² C. x² < x³ < x D. x²< x < x³
11	The magnitude of a vector can never be	A. Zero B. Negative C. Positive D. Absolute
12	Every prime number is also	A. Rational number B. even number C. Irrational number D. multiple of two numbers
13	If x < y, 2x = A and 2y = B then	A. A =B B. A < B C. A< X D. B < y
		A. x² + y² = 2√2

14	The equation of the circle with center origin and radius $2\sqrt{2}$ is	B. x² + y² = 8 C. x² - y² = $2\sqrt{2}$ D. x² - y² = 8
15	If $f(x) = x^3 - 2x^2 + 4x - 1$, then f(-2) =?	A. 0 B. -25 C. 5 D. 45
16	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
17	d/dx [cos x^2] =_____	A. -2x cos x² B. -2x² sin x² C. x² sin x D. -2x² sin x²
18	A point of a solution region where two of its boundary lines intersect is called	A. Boundary B. Inequality C. Half plane D. Vertex
19	The multiplicative inverse of -1 in the set {1-,1} is	A. 40 B. 30 C. 50 D. 20
20	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)