NAT I General Science

Sr	Questions	Answers Choice
1	$x^2 + 2x - 25 = 0$ is	A. A polynomial B. An inequality C. An identity D. A linear function
2	Write the first four term of the arithmetic sequence if $a_1 = 5$ and other three consecutive terms are 23,26,29	A. 23,26,29,32 B. 5,8,11,14 C. 8,11,14,17 D. None of these
3	The conic is a parabola if	A. e <1 B. e > 1 C. e = 1 D. e = 0
4	The set (Q, .)	A. Forms a group B. Does not form a group C. Contains no additive identity D. Contains no additive inverse
5	$\sin^{-1}[-1/2] =$ _____.	A. $\prod/3$ B. $-\prod/6$ C. $-\prod/3$ D. $\prod/6$
6	What is the domain of $y = \sin^{-1} x$?	A. $-1 \le x \le 1$ B. $1 \le x \le 1$ C. $0 \le x \le \pi$ D. $-\pi/2 \le x \le \pi/2$
7	The radius of the circle $(x-1)^2 + (y+3)^2 = 64$ is	A. 8 B. $2\sqrt{2}$ C. 4 D. 64
8	$Ab > 0$ and $a > 0$ then	A. a > b B. a < b C. a = b D. None
9	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
10	A sequence of numbers whose reciprocals forms an arithmetic sequence is called	A. Harmonic series B. Arithmetic series C. Harmonic sequence D. Geometric sequence
11	Second derivative of $y = x^9 + 10x^2 + 2x - 1$ at $x = 0$ is	A. 10 B. 20 C. 12 D. 1
12	Given eight points in a plane no three of which are collinear how many lines do the points determine?	A. 16 B. 64 C. 28 D. 36
13	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
14	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
15	The equation of the normal to the circle $x^2 + 2^2 = 25$ at (4,3) is	A. 3x -4y =0 B. 3x -4y= 5 C. 4x + 3y=5 D. 4x - 3y =25

16	The general solution of the differential equation dy/dx = log x is	A. Y = -x log x- x +c B. Y = x log x + x^2 C. Y = x log x -x +c D. Y= 2x log x + 2x +c
17	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true
18	If Z_1 = 1+i, Z_2 = 2+3i, then $|Z_2-Z_1|$=?	A. $\sqrt{3}$ I B. $\sqrt{7}$ C. -2-1 D. $\sqrt{5}$
19	The parametric equation of a curve are x = t^2, y = t^2 then	A. dy/dx =3t/2 B. dy/dx =t^5 C. dy/dx =$5t^4$ D. None
20	An m x n matrix is said to be rectangular if	A. m = n B. m ≠ n C. mn = 1 D. mn = 0