NAT I General Science Mathematics

Sr	Questions	Answers Choice
1	Unit vector in the positive direction of x-axis is	A. î B. ĵ C. k̂ D. All
2	Period of Sin 2x =	A. π B. 4π C. 2nπ D. 2π
3	The average of first 100 integers is=	A. 50 1/2 B. 25 1/4 C. 100 D. 5050
4	How many different arrangements of the letters in the word QABABA are Possible?	A. 720 B. 40 C. 60 D. 30
5	The difference of two consecutive terms of an A.P is called	A. Zero B. One C. Four D. Infinite
6	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)
7	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
8	∫1/ax +b dx =	A. 1/a log |ax + b| +c B. Log |ax + b| +c C. 1/b log |ax +b| +c D. 1/x log |ax + b| +c
9	For any set X, X∪X is	A. 15 B. 15i C. -15i D. -15
10	The sum of the interior angles for a 16 sided polygon is	A. 0 B. ω C. 1 D. 1 / ω
11	Given X, Y are any two sets such that number of elements in X=28, number of elements in set Y=28, and number of elements in set X∪Y=54, then number of elements in set X∩Y=	A. -7 + 2i B. 7 + 2i C. 7-2i D. √53
12	2/(x+1)(x-1) = A/x+1 + B/x-1 corresponds to	A. α = b/a and β = ca B. α = a/b and β = -c/a C. α² + β² = 1 D. α = -b/a and β= c/a
13	If $Z_1 = \sqrt{-36}$, $Z_2=\sqrt{-25}$, $Z_3= \sqrt{-16}$, then what is the sum of Z_1, Z_2 and Z_3 ?	A. √3 I B. √7 C. -2-1 D. √5
14	8 > t then	A. (s -t) ²>(t -8) ² B. (s -t) ²<(t -8) ²

		C. (s -t) ²=(t -8) ² D. None
15	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
16	The sum of the ages of Nazish and his son is 56 years. Eight years ago. Nazish was 3 time as old as his son. How old is the son now?	A. m = n B. m ≠ n C. mn = 1 D. mn = 0
17	The two consecutive positive integers whose product is 56 are	A. 7, 8 B. 14, 4 C. 28, 2 D. 56, 1
18	$Sin^{-1}\ \sqrt{3}/2$ =?	A. 2π/3 B. π/2 C. π/3 D. v/5
19	The set of all positive even integers is	A. Φ B. {1,2,3} C. {Φ} D. {0}
20	The statement that a group can have more than one identity elements is	A. True B. False C. Fallacious D. Some times true