NAT II Physical Science Mathematics

Sr	Questions	Answers Choice
1	Question Image	A. n = 3 only B. n <u>></u> 5 C. n <u>></u> 3 D. n < 5
2	Question Image	A. 1 B. 2 C. 3 D. 4
3	$\sin(a + b) + \sin(a - b) =$	A. Sin a Cos b B. Sin a Sin b C. Sin a + Cos b D. Sin a - 2 Cos b
4	Question Image	
5	$\cos 315° =$	A. 0.707 B. 0.5 C. 1 D. 0
6	Question Image	A. A positive integer B. A negative integer C. A natural number D. An irrational number
7	In 30,60,90 triangle, if the smallest side is 6 then the side opposite to the angle of 60° is	A. 12 B. 3 D. 6
8	Question Image	
9	The equation of the normal to the circle $x^2 + y^2 = 25$ at (4, 3) is	A. 3x - 4y = 0 B. 3x - 4y = 5 C. 4x + 3y = 5 D. 4x + 3y = 25
10	The set {{a,b}} is	A. Infinite set B. Singleton set C. Two points set D. None
11	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
12	The range of inequality x + 2 > 4 is	A. (-1, 2) B. (-2, 2) D. None
13	A die is thrown. What is the probability that there is a prime number on the top?	A. 1/2 B. 1/3 C. 1/6 D. 2/3
14	Question Image	A. 1/2 B. 3/5 C. 4/5 D. 1
15	Question Image	A. (0, e) B. (0, 1) D. None
16	In which quadrant is the solution of the equation sin x - 1 = 0	A. II quadrants B. II and III quadrants C. III and IV quadrants D. I quadrant
17	The line joining (1, 3) to (a, b) has unit gradient then	A. a-b = -2 B. a+b = 0 C. a-b + 5

18	If the sum of the roots of the equation $ax^2 - 2x + 2a = 0$ is equal to their product, then the value of a is	A. 1 B. 2 C. 3 D. 4
19	Question Image	
20	The value of the polynomial $3x^3 + 4x^2 - 5x + 4$ at $x = -1$ is	A. 12 B. 1 C. 10 D. -10