

## NAT II Physical Science Mathematics

17	Question Image	B. A cubic equation     C. A quadratic equation     D. An equation for circle
16	Total number of terms in the expansion of $(a + b)^5$ + $(a - b)^5$ after simplification are	A. 3 B. 1 C. 4 D. 7  A. A linear equation
15	Every prime number is also	A. Rational number B. even number C. Irrational number D. multiple of two numbers
14	Question Image	
13	Question Image	A. An equation B. Linear equation C. Rational fraction D. Identity
12	Which is an explicit function	D. All
11	The difference of two consecutive terms of an A.P. is called	A. Constant of series B. Common ratio C. Common difference D. General term
10	Question Image	
9	Cos 315°=	A. 0.707 B. 0.5 C. 1 D. 0
8	A farmer possesses 100 hectometers of land and wants to grow corn and wheat. Cultivation of corn requires 3 hours per hectometer while cultivation of wheat requires 2 hours pert hectometer. Working hours cannot exceed 240. If he gets a profit of Rs. 20 per hectometer for corn and Rs. 20 per hectometer for wheat. The profit function for the farmer is	A. $P(x,y) = 20x + 15y$ B. $P(x,y) = 2x + 3y$ C. $P(x,y) = x + y$ D. $P(x,y) = 3x + 2y$
7	Question Image	D. None of these
6	The set {{a,b}} is	A. Infinite set B. Singleton set C. Two points set D. None
5	If the diagonal of a square has coordinates (1, 2) and (5,6) the length of a side is	A. 3 B. 4 C. 1 D. 5
4	The common difference of the sequence 7,4,1, is	A. 1 B3 C. 5 D. 0
3	The equation of the line with gradient 1 passing through the point (h, k) is	A. Y = x + k - h B. Y = k/h x + 1 C. Y = x + h - k D. Ky = hx - 1
2	The number of ways in which we can courier 5 packets to 10 cities is	A. 2 x 5 <sup>0</sup> B. 5 <sup>10</sup> C. 10 <sup>5</sup> D. 2 <sup>10</sup>
1	Question Image	A. p < r B. p > r C. p + r < 0 D. p - r < 0
Sr	Questions	Answers Choice

18	The point (-5, 3) is the center of a circle and $P(7, -2)$ lies on the circle. The radius of the circle is	B. 13 C. 7 D. 8
19	Question Image	A. A &It G &It H B. A > G > H C. A &It G > H D. A > G &It H
20	A standard deck of 52 cards is shuffled. What is the probability of choosing the queen of the diamonds	A. 1/5 B. 1/13 C. 5/52 D. 1/52