

## NTS Educators ESE (Science) Jobs Test

Sr	Questions	Answers Choice
1	The two consecutive positive integers whose product is 56 are	A. 7, 8 B. 14, 4 C. 28, 2 D. 56, 1
2	Which of the following is the subset of all sets ?	A. $A \neq C$ B. $B = C$ C. $A = B$ D. $A \neq B$
3	Which is not included in the domain of $\cos^{-1} x$	A. 0 B. 1 C. -1 D. 2
4	Domain of $Y = \csc x$ is	A. $\mathbb{R} - n\pi, n \in \mathbb{I}$ B. $\mathbb{R}$ C. $\mathbb{R} - n\pi/2, n \in \mathbb{I}$ D. All negative Integers
5	The principal value of $\sin^{-1} [\sqrt{3}/2]$ is	A. $\pi/3$ B. $-\pi/3$ C. $2\pi/3$ D. $5\pi/3$
6	Which is in the solution set of $4x - 3y < 2$	A. (3,0) B. (4,1) C. (1,3) D. None
7	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. Lies outside $k_1 < 1$ and $k_2 < 2$
8	The difference of two consecutive terms of an A.P is called	A. Zero B. One C. Four D. Infinite
9	In general matrices do not satisfy	A. Not a group B. A group w.r.t. subtraction C. A group w.r.t. division D. A group w.r.t. multiplication
10	What is the period of $\cot x$ ?	A. $2\pi$ B. $\pi$ C. $\pi/2$ D. $4\pi$
11	Let A, B, and C be any sets such that $A \cup B = A \cup C$ and $A \cap B = A \cap C$ then	A. $A \neq C$ B. $B = C$ C. $A = B$ D. $A \neq B$
12	$1+2+3+\dots+n=?$	A. $n(n+1)/2$ B. $n+1/2$ C. $n(n+1)(2n+1)/6$ D. $n^3/3$
13	If x lies in $\{0, 2\pi\}$ and $\operatorname{Cosec} x = 2$ then x =	A. $\pi/6$ and $5\pi/6$ B. $\pi + 2n\pi$ C. $n\pi$ D. $2\pi/3$ and $\pi/3$
14	$\tan(\pi + \tan^{-1} x) = ?$	A. $\tan x$ B. $x$ C. $-x$ D. $\cot^{-1} x$
15	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. $\sqrt{3} i$ B. $\sqrt{7}$ C. $-2-1$ D. $\sqrt{1}$

		D. $\sqrt{5}$
16	There are 30 Red balls and 25 Green balls in a bag of a ball is drawn from the bag randomly what is the probability that a Blue ball comes out?	A. 1 B. 0.5 C. 0 D. None
17	Which is a proper rational fraction	A. $3x - \frac{7}{x^2} + 4$ B. $\frac{2x^2}{x^2} - \frac{5}{x^2}$ C. $\frac{3x^4}{2x^2} - 15$ D. All are proper rational fraction
18	$\omega^{88} = ?$	A. A and B are multiplicative inverse of each other B. A and B are additive inverses of each other C. A and B are singular matrices D. A and B are equal
19	Graph of the equation $x^2 + y^2 = 4$ is	A. a circle B. an ellipse C. a parabola D. A square
20	The direction cosines of y-axis are	A. 1,0,0 B. 0,1,0 C. 0,0,1 D. 1,1,1