

NTS Educators ESE (Science) Jobs Test

Sr	Questions	Answers Choice
1	The set of all positive even integers is	A. Φ B. $\{1,2,3\}$ C. $\{\Phi\}$ D. $\{0\}$
2	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
3	The nth term of A.P:1,5,9,15.....is given by	A. $4n - 3$ B. $4n + 1$ C. $3n - 4$ D. $4n + 3$
4	Cose $\pi/3$	A. 2 B. 1 C. 0 D. $2/\sqrt{3}$
5	The complement of set A relative to universal set U is the set	A. X B. X C. ϕ D. Universal set
6	$F(x) = xx$ decreases in the interval	A. (0,e) B. (0,1) C. $(-\infty, 0)$ D. None
7	The length of rectangle is twice as much as its breadth. If the perimeter is 120 cm, the length of the rectangle is	A. Same as the original determinant B. Additive inverse of the original determinant C. Both A and B D. Adj of the original matrix
8	If x lies in $\{0, 2\pi\}$ and $\text{Cosec } x = 2$ then x =	A. $\pi/6$ and $5\pi/6$ B. $\pi + 2n\pi$ C. $n\pi$ D. $2\pi/3$ and $\pi/3$
9	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
10	The conic is a parabola if	A. $e < 1$ B. $e > 1$ C. $e = 1$ D. $e = 0$
11	The range of inequality $x + 2 > 4$ is	A. (-1,2) B. (-2,2) C. $(1, \infty)$ D. None
12	If $\sin \theta = 3/5$ $\cos \theta =$	A. 1/2 B. 3/5 C. 4/5 D. 1
13	6 is	A. A prime integer B. An irrational number C. A rational number D. A odd integer
14	If the 9 th term of A.P is 8 and the 4 th term is 20. then the first term is	A. 1 B. 2 C. -2 D. -1
15	If $\cos \theta = 0$, Then $\theta =$	A. $n\pi/2$ B. $(2n + 1)\pi/2$ C. $(2n - 1)\pi/2$ D. $(2n + 1)\pi$

		D. $(n \pm 1)\pi/2$
16	If the vector $2i+4j-2k$ and $2i+6j+xk$ are perpendicular then $x=$	A. 4 B. 8 C. 14 D. 7
17	The mid point of the line joining $(-1,-3)$ to $(3,-5)$ is	A. (1, 1) B. (1,-1) C. (2, -8) D. (1, -4)
18	If $\sin \theta = \cos \theta$ then $\theta =$	A. 30° B. 45° C. 60° D. 90°
19	$\sin x + \cos x = 1$ $x =$	A. π B. $\pi/2$ C. $\pi/3$ D. $\pi/4$
20	$\int \frac{1}{ax+b} dx =$	A. $\frac{1}{a} \log ax+b + c$ B. $\log ax+b + c$ C. $\frac{1}{b} \log ax+b + c$ D. $\frac{1}{x} \log ax+b + c$