

ECAT Pre General Science Mathematics Online Test

Sr	Questions	Answers Choice
1	For an A.P common difference d	A. Can be zero B. May or may not zero C. Cannot be zero D. None of these
2	Question Image	
3	The angles of elevation of the top of a tower at the top and the foot of a pole of height 10 m are 30° and 60° respectively. The height of the tower is	A. 10 m B. 15 m C. 20 m D. None of these
4	The number of points of intersection of two curves $y = 2 \sin x$ and $y = 5x^2 + 2x + 3$ is	A. 0 B. 1 C. 2 D. None of these
5	Question Image	
6	Question Image	
7	The direction cosines of y-axis are	A. 1, 0, 0 B. 0, 1, 0 C. 0, 0, 1 D. 1, 1, 1
8	Fundamental law is	
9	The negation of a number	A. a relation B. a function C. unary operation D. binary operation
10	If x,y are two positive distinct numbers then	A. $A > G > H$ B. $A < G < H$ C. $A = G = H$ D. None of these
11	Question Image	
12	Which of the following is a vector.	A. energy B. force C. work D. power
13	If the roots of $3x^2 + kx + 12 = 0$ are equal then $k =$ _____	
14	Question Image	
15	Question Image	
16	A machine operates if all of its three components function. The probability that the first component fails during the year is 0.14, the second component fails is 0.10 and the third component fails is 0.05. the probability that the machine will fail during the year is	A. 0.2647 B. 0.2692 C. 0.3647 D. None of these
17	A _____ divides the plane into left and right half planes.	A. Vertical line B. Horizontal line C. Non vertical line D. Inequality
18	A matrix in which the number of rows is equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix C. Square matrix D. Scalar matrix
19	Question Image	A. $(1, 7/3)$ B. $(1, 7/5)$ C. $(1, 11/7)$ D. $(1, 3/5)$
20	Associative law of multiplication	A. $ab - ba$ B. $a(bc) = (ab)c$ C. $a(b + c) = ab + ac$

C. $a(b + c) = ab + bc$
D. $(a + b)c = ac + bc$