

## ECAT Pre General Science Mathematics Chapter 24 Vectors

Sr	Questions	Answers Choice
1	Which of the following is not a unit vector	A. $[1, 1, 1]$ B. $[0, 1, 0]$ C. $[0, 0, 1]$ D. $[1, 0, 0]$
2	Question Image	
3	Unit vector in the positive direction of x-axis is	
4	Question Image	
5	Question Image	
6	The angle between the vectors $3i + j - k$ and $2i - j + k$ is	
7	Question Image	D. none of these
8	If $\text{Proj}_v u = \text{Proj}_u v$ , then	A. Uand vare parallel B. $ u = v $ C. Uandvre perpendicular D. One ofuorv
9	Which of the following is a vector.	A. work B. time C. density D. electric field
10	Question Image	
11	Three points whose position vector $a, b, c$ are collinear	A. $a \times b + b \times c + c \times a = 0$ B. $a, b + b, c + c, a = 0$ C. $a,  a \times c  = 0$ D. $a + b + c = 0$
12	Question Image	A. $[0, 0, 0]$ B. $[1, 0, 0]$ C. $[0, 1, 0]$ D. $[0, 0, 1]$
13	$u, v$ , and $u \times (v \cdot w)$ are	A. Equal B. Parallel C. Additive immense of each other D. Meaningless
14	Question Image	D. none of these
15	If the angle between two vectors with magnitude 2 and 15 is $30^\circ$ then their scalar product is	B. 15 C. 30
16	Question Image	D. none of these
17	Question Image	A. 0 B. $90^\circ$ C. $180^\circ$ D. $360^\circ$
18	If $a, b, c$ are sides of a triangle taken in order then $a \times b =$	A. $b \times c$ B. $b \times a$ C. $c \times a$ D. Both a & b
19	Question Image	A. Free vector B. Null vector C. Unit vector D. None of these
20	If a force $F = 2i + j + 3k$ acts at point $(1, -2, 2)$ of a body then the moment of $F$ about a point lying on the line of action of the force is	A. 5 B. Equal to the moment of the force about origin C. 0 D. Cannot be found