

ECAT Pre General Science Mathematics Chapter 24 Vectors

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	A. A, B, C are coincident B. A, B, C are collinear C. Both A and B D. None of these
3	If a, b, c are unit vectors then $ a + b ^2 + a - b ^2$	A. 4 B. $8ab$ C. $9\cos$ D. $4(a, b)$
4	Question Image	
5	If C is the mid point of AB and P is any point outside AB, then	
6	If a force $F = 2i + j + 3k$ acts at point $(1, -2, 2)$ of a body then the moment of F about a pint 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
7	Question Image	
8	Which of the following does not represent absolute value of a vector	A. magnitude B. length C. norm D. number
9	Question Image	
10	If 2 and 2 are x and y components of vector then its angle with x-axis is	A. 30° B. 45° C. 60° D. 90°
11	If a, b, c are three non-coplanar vector then $[a + b, b + c, c + a] = \underline{\hspace{2cm}}$	A. $[a, b, c]$ B. $2[a, b, c]$ C. $[abc] - 2$ D. $2[abc]^2$
12	Question Image	A. direction ratios B. direction cosines C. direction angles D. none of these
13	The physical quantity which possesses both magnitude and direction is called a	A. scalar B. vector C. constant D. none of these
14	Question Image	
15	Question Image	
16	Question Image	C. 1 D. 0
17	A vector with magnitude one is called	A. constant vector B. unit vector C. zero vector D. null vector
18	Question Image	
19	Question Image	

19

question image

20

The null vector is regarded to be perpendicular to

- A. Every vector
- B. In some cases
- C. Both a b
- D. None