

ECAT Pre General Science Mathematics Chapter 24 Vectors

Sr	Questions	Answers Choice
1	u,v,w and $u \times (v \cdot w)$ are	A. Equal B. Parallel C. Additive immense of each other D. Meaningless
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	Which of the following is a vector.	A. distance B. temperature C. energy D. acceleration
4	Projection of vector u along v is	A. $v \cos\theta$ B. $ u \cos\theta$ C. $ v \sin\theta$ D. $ u \sin\theta$
5	The area of the rhombus whose vertices are A(0,0),B(2,1),C(3,3),D(1,2) is	A. 36 square units B. 3 square units C. 6 square units D. 18 square units
6	Question Image	D. none of these
7	If $a + b + c = 0$ then which of the following is true	A. $a = b = c = 0$ B. $a, b = b, c = c, a$ C. $a \times b = b \times c = c \times a$ D. None
8	Question Image	A. 0 B. 1
9	Question Image	D. none of these
10	$[i, j, k]$	A. 0 B. 2 C. 1 D. -2
11	Which of the following is a scalar.	A. force B. frequency C. weight D. acceleration
12	Question Image	
13	Question Image	D. none of these
14	Unit vector in the positive direction of x-axis is	
15	If $uv = \text{Proj}_{uv} v$ then	A. u and v are parallel B. v is a unit vector C. u is a unit vector D. Both b and c
16	If the vector $2i + 4j - 7k$ and $2i + 6j + xk$ are perpendicular then $x = ?$	A. 0 B. 2 C. 4 D. 7
17	If $ a \times b ^2 + (a \cdot b)^2 = \underline{\hspace{2cm}}$	A. $ a ^2 + b ^2$ B. $ a ^2 - b ^2$ C. $ a ^2 b ^2$ D. None
18	Which of the following is a vector	A. length B. momentum C. volume D. speed

19 Question Image

- A. $[0, 0, 0]$
- B. $[1, 0, 0]$
- C. $[0, 1, 0]$
- D. $[0, 0, 1]$

20 Question Image

D. none of these