

ECAT (Pre-Eng) Mathematics Chapter 24 Vectors

Sr	Questions	Answers Choice
1	If θ be angle between u, v and u, v determine the sides of a triangle then the third side opposite to angle θ has length	A. $ u+v $ B. $ u + v $ C. $ u-v $ D. $ u - v $
2	Question Image	A. direction ratios B. direction cosines C. direction angles D. none of these
3	Unit vector in the positive direction of x-axis is	
4	If $uv = \text{Proj}_v u$ then	A. Uandvare parallel B. vis a unit vector C. Uis a unit vector D. Both b and c
5	Which of the following is a scalar.	A. electric field B. magnetic field C. weight D. mass
6	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. $a + b + c = 0$
7	Question Image	A. A, B, C are coincident B. A, B, C are collinear C. Both A and B D. None of these
8	Question Image	
9	For two vector a and b , $a+b =$ _____	A. $a \cdot b$ B. $b \cdot a$ C. $b-a$ D. None
10	Question Image	
11	Question Image	C. 0 D. 1
12	Question Image	
13	Question Image	
14	The physical quantity which possesses both magnitude and direction is called a	A. scalar B. vector C. constant D. none of these
15	Question Image	D. none of these
16	If $\text{Proj}_v u = \text{Proj}_u v$, then	A. Uand vare parallel B. $ u = v $ C. Uandvare perpendicular D. One ofuorv
17	The angle between the vectors $3i + j - k$ and $2i - j + k$ is	
18	Question Image	
19	The ortho center of triangle whose vertices are $(0,0)(3,0)(0,4)$ is	A. (0,0) B. (1,1) C. (2,2) D. (3,3)
20	If a, b, c are unit vectors then $ a + b ^2 + a - b ^2$	A. 4 B. $8ab$ C. $9\cos$ D. $4(a, b)$

