

ECAT (Pre-Eng) Mathematics Chapter 24 Vectors

Sr	Questions	Answers Choice
1	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
2	The direction cosines of y-axis are	A. 1, 0, 0 B. 0, 1, 0 C. 0, 0, 1 D. 1, 1, 1
3	If $\text{Proj}_v u = \text{Proj}_v v$, then	A. U and v are parallel B. $ u = v $ C. U and v are perpendicular D. One of u or v
4	If $uv = \text{Proj}_v u$ then	A. U and v are parallel B. v is a unit vector C. U is a unit vector D. Both b and c
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $ m ^2 + n ^2 = m+n ^2$ B. $ m ^2 - n ^2 = m-n ^2$ C. $ m ^2 + n ^2 = m-n ^2$ D. $ m ^2 - n ^2 = m+n ^2$
6	Projection of vector u along v is	A. $ v \cos\theta$ B. $ u \cos\theta$ C. $ v \sin\theta$ D. $ u \sin\theta$
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	D. none of these
9	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
10	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. $2[abc]^2$
11	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°
12	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
13	Which of the following is not a unit vector	A. $[1, 1, 1]$ B. $[0, 1, 0]$ C. $[0, 0, 1]$ D. $[1, 0, 0]$
14	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)
15	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $[0, 0, 0]$ B. $[1, 0, 0]$ C. $[0, 1, 0]$ D. $[0, 0, 1]$
16	Question Image <input style="width: 500px; height: 20px;" type="text"/>	

17	The unit vector along z-axis is	D. none of these
18	Question Image <input type="text"/>	A. perpendicular vectors B. parallel vectors C. concurrent vectors D. none of these
19	Question Image <input type="text"/>	
20	Question Image <input type="text"/>	C. 0 D. 1