

ECAT Pre General Science Mathematics Chapter 24 Vectors

Sr	Questions	Answers Choice
1	Projection of vector u along v is	A. $ v \cos\theta$ B. $ u \cos\theta$ C. $ v \sin\theta$ D. $ u \sin\theta$
2	Which of the following is a scalar.	A. electric field B. magnetic field C. weight D. mass
3	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)
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	D. none of these
5	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]
6	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
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
8	If $a^2 = b^2$ then	A. $a = b$ B. $a+b=1$ C. $ a+b =0$ D. None
9	The zero vector is regarded to be parallel to	A. Every vector B. is some cases C. Both a,b D. None
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 0 B. 1 C. -1 D. None
11	Which of the following is a vector	A. length B. momentum C. volume D. speed
12	The position vector of a point (x, y) in xy plane is	D. none of these
13	$3j \cdot k \times i$	A. 0 B. 1 C. 3 D. 9
14	If $ a \times b ^2 + (a \cdot b)^2 = \dots$	A. $ a ^2 + b ^2$ B. $ a ^2 - b ^2$ C. $ a ^2 b ^2$ D. None
15	Which of the following is a vector.	A. work B. time C. density D. electric field
16	Which of the following is a scalar.	A. force B. frequency C. weight D. acceleration
17	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
18	Which of the following represents a vector	D. (x, y)

19	If a, b, c are unit vectors then $ a + b ^2 + a - b ^2$	A. 4 B. $8ab$ C. $9\cos$ D. $4(a, b)$
20	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
