

ECAT (Pre-Eng) Mathematics MCQ's Test For Chapter 23 Conic Section

Sr	Questions	Answers Choice
1	If G is the centroid of the triangle, then GA +GB+GC=	A. 0 B. 1 C1 D. 3
2	The magnitude of vector a=i-3j+5k is:	A. 3 B. √35 C. √17 D. √35
3	If a = b = a+b =1, then a-b is equal to:	A. 1 B. √3 C. √2 D. 7
4	If a =5i + 2j, then a =	A. √13 B. √7 C. 1/√13 D. √29
5	aquantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
6	If a = 2i +2j, b= 3i -j and c=4i +5j, the 3b -a-2c =	Ai -15j B. i-15j C. i-3j D. None of these
7	If the angle between two vectors \underline{u} and \underline{v} is 0 or π , then the vectors \underline{u} and \underline{v} are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
8	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
9	If the sum of two unit vectors is a unit vector the the magnitude of their difference is	A. $\sqrt{2}$ B. $\sqrt{3}$ C. 1 D. None of these
10	<u>O (</u> 0,0)is called:	A. Position vector B. Free vector C. Unite vector D. Null vector
11	The vector i = [1,0] is called unit vector along:	A. x-axis B. y - axis C. z- axis D. Botha a and y-axis
12	If $u = 2a\underline{i} + \underline{i} - \underline{k}$ and $\underline{v} = \underline{i} + a\underline{i} + 4\underline{k}$ are perpendicular then $a =$	A. 4 B. 1/2 C. 3 D. 4/3
13	If $a = [1,4,3]$ and $B= [2,-1,5]$ athen the mid point M of AB is:	A. [1,1,1.5] B. [2,2,1.5] C. [1.5,1.5,4] D. None of these
14	If $a\neq$, $b\neq 0$ and $ a=b = a-b $, then vectors a and b are:	A. Parallel to each other B. Perpendicular to each other C. Inclined at 60 ^o D. neither parallel nor perpendicular
15	If \underline{u} =[3,-4],then modulus of \underline{u} is:	A. 5 B. 5i C5 D. √5

16	If $\underline{u} = 2\underline{i} + p\underline{i} + 5\underline{k}$ and $\underline{v} = 3\underline{i} + \underline{i} + p\underline{k}$ are perpendicular , then p=	A. 1 B. 2 C1 D3
17	If the angle between two vectors \underline{u} and \underline{v} is 0 orπ, then the vectors \underline{u} and \underline{v} are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
18	If $u = xi + yj$, then u	A. x ² + y ² B. (x ² +y ²) ² C. x ² -y ² D. \(x ² +y ²
19	Vector additon is:	A. Commutative B. Associative C. Commutative and Associative D. None of these
20	The vector $k = [0,0,1]$ is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these