

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

Sr	Questions	Answers Choice
1	aquantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
2	Vector additon is:	A. Commutative B. Associative C. Commutative and Associative D. None of these
3	f a = b = a + b = 1, then $ a + b = 5$, then $ a - b = 1$	A. 4 B. 6 C. 5 D. 3
4	<u>O (</u> 0,0)is called:	A. Position vector B. Free vector C. Unite vector D. Null vector
5	If <u>a</u> and <u>b</u> are two vectors then a+b =	A. b + a B. b - a C. ab D. a^b
6	If c = 2i+j+k and d= -1 + 4j +2k, then [c-d]=	A. √7 B. √41 C. √19 D. √(2&7)
7	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
8	If a=5j + 2j,b=2i -3j, then a+2b =	A. $\sqrt{21}$ B. $\sqrt{97}$ C. $\sqrt{39}$ D. None of these
9	If a =5i + 2j, then a =	A. √13 B. √7 C. 1/√13 D. √29
10	The angle between the vectors $\underline{\mathbf{u}} = 2\underline{\mathbf{i}} - \underline{\mathbf{i}} + \underline{\mathbf{k}}$ and $\underline{\mathbf{v}} = -\underline{\mathbf{i}} + \underline{\mathbf{i}}$ is:	A. 3π/2 B. 2π/3 C. 5π/6 D. π/3
11	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
12	If G is the centroid of the triangle, then GA +GB+GC=	A. 0 B. 1 C1 D. 3
13	Vector <u>i</u> =	A. [1,0] B. [0,1,0] C. [0,0,1] D. None of these
14	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
15	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

6	If u = 2a <u>i</u> + <u>i</u> - <u>k</u> and <u>v</u> = <u>i</u> +a <u>i</u> + 4 <u>k</u> are perpendicular then a =	A. 4 B. 1/2 C. 3 D. 4/3
7	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
8	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
9	If a,b = 0 then	A. a b B. a b C. a = b D. None
20	If a = b = a+b =1, then a-b is equal to:	A. 1 B. √3 C. √2 D. 7