ECAT Mathematics Chapter 23 Conic Section

Sr	Questions	Answers Choice
1	If u =[3,-4],then modulus of uis:	A. 5 B. 5i C. -5 D. √5
2	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
3	a _____quantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
4	The positive real number which is the measure of the length of a vector is called the	A. Unit vector B. Modulus C. Inverse D. None of these
5	The vector k = [0,0,1] is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these
6	If aand bare two vectors then a+b =	A. b + a B. b - a C. ab D. a^ b
7	The angle between the vectors u =2i - i + k and v = -i + i is:	A. 3π/2 B. 2π/3 C. 5π/6 D. π/3
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	Vector i =	A. [1,0] B. [0,1,0] C. [0,0,1] D. None of these
10	O (0,0)is called:	A. Position vector B. Free vector C. Unite vector D. Null vector
11	I f a =5i + 2j, then|a| =	A. √13 B. √7 C. 1/√13 D. √29
12	The modulus of a vector i-i+ k is:	A. √3 B. 1 C. √2 D. ∞
13	If the sum of two unit vectors is a unit vector the the magnitude of their difference is	A. √2 B. √3 C. 1 D. None of these
14	The magnitude of vector a=i-3j+5k is:	A. 3 B. √35 C. √17 D. √35
15	If a≠ , b≠ 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

16	If a,b = 0 then	A. a |b B. a||b C. a = b D. None
17	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
18	If the angle between two vectors u and v is 0 orπ, then the vectors u and v are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
19	If|a| =|b|=|a + b|=1, then|a+ b| = 5, then|a-b| =	A. 4 B. 6 C. 5 D. 3
20	If|a| =|b| = |a+b|=1, then|a-b| is equal to:	A. 1 B. √3 C. √2 D. 7