ECAT Mathematics Chapter 23 Conic Section

Sr	Questions	Answers Choice
1	If a,b = 0 then	A. a |b B. a||b C. a = b D. None
2	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
3	If u =[3,-4],then modulus of uis:	A. 5 B. 5i C. -5 D. √5
4	The angle between the vectors u = [-3 , 5] and v = [6 , -2] is:	A. π/2 B. -3π/2 C. π D. None of these
5	The modulus of 12-5i is:	A. 7 B. 13 C. √7 D. 119
6	I f a =5i + 2j, then|a| =	A. √13 B. √7 C. 1/√13 D. √29
7	If u =2i +pi + 5k and v = 3i + i +pk are perpendicular , then p=	A. 1 B. 2 C. -1 D. -3
8	If a=5j + 2j,b=2i -3j, then|a+2b|=	A. √21 B. √97 C. √39 D. None of these
9	Vector additon is:	A. Commutative B. Associative C. Commutative and Associative D. None of these
10	If|a| =|b| = |a+b|=1, then|a-b| is equal to:	A. 1 B. √3 C. √2 D. 7
11	If|a| =|b|=|a + b|=1, then|a+ b| = 5, then|a-b| =	A. 4 B. 6 C. 5 D. 3
12	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
13	If u = 2ai + i - k and v = i +ai + 4k are perpendicular then a =	A. 4 B. 1/2 C. 3 D. 4/3
14	If aand bare two vectors then a+b =	A. b + a B. b - a C. ab D. a^ b
15	If G is the centroid of the triangle, then GA +GB+GC=	A. 0 B. 1 C. -1 D. 3

16	$\underline{O}$ (0,0)is called:	A. Position vector B. Free vector C. Unite vector D. Null vector
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	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
19	The vector k = [0,0,1] is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these
20	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