ECAT Mathematics Chapter 23 Conic Section

Sr	Questions	Answers Choice
1	If u =2i +pi + 5k and v = 3i + i +pk are perpendicular , then p=	A. 1 B. 2 C. -1 D. -3
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	If|a| =|b| = |a+b|=1, then|a-b| is equal to:	A. 1 B. √3 C. √2 D. 7
4	The vector k = [0,0,1] is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these
5	If a=5j + 2j,b=2i -3j, then|a+2b|=	A. √21 B. √97 C. √39 D. None of these
6	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
7	If G is the centroid of the triangle, then GA +GB+GC=	A. 0 B. 1 C. -1 D. 3
8	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
9	If|a| =|b|=|a + b|=1, then|a+ b| = 5, then|a-b| =	A. 4 B. 6 C. 5 D. 3
10	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
11	If aand bare two vectors then a+b =	A. b + a B. b - a C. ab D. a^ b
12	If u = 2ai + i - k and v = i +ai + 4k are perpendicular then a =	A. 4 B. 1/2 C. 3 D. 4/3
13	If m and n be two scalars, then (m+n) g =	A. 0 B. m+n<img width="9" height="20" src="file:///C:/Users/Softsol/AppData/Local/Temp/msohtmlclip1/01/clip_image002.png" v:shapes="_x0000_i1025"> <!--[endif]--><o:p></o:p> C. m_a+n_a D. ma - m_a <!--[endif]--><o:p></o:p>
14	If c = 2i+j+k and d= -1 + 4j +2k, then [c-d]=	A. √7 B. √41 C. √19 D. √(2&7)
15	I f a =5i + 2j, then|a| =	A. √13 B. √7 C. 1/√13

		D. √29
16	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
17	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
18	If u =[3,-4],then modulus of uis:	A. 5 B. 5i C. -5 D. √5
19	If a,b = 0 then	A. a ⊥b B. a‖b C. a = b D. None
20	The magnitude of vector a=i-3j+5k is:	A. 3 B. √35 C. √17 D. √35