ECAT Mathematics Chapter 23 Conic Section

Sr	Questions	Answers Choice
1	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
2	a _____quantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
3	The modulus of 12-5i is:	A. 7 B. 13 C. √7 D. 119
4	If u = 2ai +i - k and v = i +ai + 4k are perpendicular then a =	A. 4 B. 1/2 C. 3 D. 4/3
5	I f a =5i + 2j, then|a| =	A. √13 B. √7 C. 1/√13 D. √29
6	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
7	O (0,0)is called:	A. Position vector B. Free vector C. Unite vector D. Null vector
8	If c = 2i+j+k and d= -1 + 4j +2k, then [c-d]=	A. √7 B. √41 C. √19 D. √(2&7)
9	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
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	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
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	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
14	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>
15	Iflal =lbl=la + bl=1. thenla+ bl = 5. thenla-bl =	A. 4 B. 6

		C. 5 D. 3
16	If a = 2i +2j, b= 3i -j and c=4i +5j, the 3b -a-2c =	A. -i -15j B. i-15j C. i-3j D. None of these
17	The vector k = [0,0,1] is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these
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 u =[3,-4],then modulus of uis:	A. 5 B. 5i C. -5 D. √5
20	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