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

Sr	Questions	Answers Choice
1	If a=5j + 2j,b=2i -3j, then|a+2b|=	A. √21 B. √97 C. √39 D. None of these
2	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
3	a _____quantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
4	Vector i =	A. [1,0] B. [0,1,0] C. [0,0,1] D. None of these
5	If u = xi + yj, then|u|	A. x² + y² B. (x² +y²) ² C. x²-y² D. √(x²+y²)
6	I f a =5i + 2j, then|a| =	A. √13 B. √7 C. 1/√13 D. √29
7	The magnitude of vector a=i-3j+5k is:	A. 3 B. √35 C. √17 D. √35
8	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
9	If u =[3,-4],then modulus of uis:	A. 5 B. 5i C. -5 D. √5
10	If aand bare two vectors then a+b =	A. b + a B. b - a C. ab D. a^ b
11	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
12	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
13	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
14	If|a| =|b|=|a + b|=1, then|a+ b| = 5, then|a-b| =	A. 4 B. 6 C. 5 D. 3
15	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
16	If a,b = 0 then	A. a |b B. a||b C. a = b D. None
17	If $\underline{u}$ =2$\underline{i}$ +p$\underline{i}$ + 5$\underline{k}$ and $\underline{v}$ = 3$\underline{i}$ + $\underline{i}$ +p$\underline{k}$ are perpendicular , then p=	A. 1 B. 2 C. -1 D. -3
18	If|a| =|b| = |a+b|=1, then|a-b| is equal to:	A. 1 B. √3 C. √2 D. 7
19	Vector additon is:	A. Commutative B. Associative C. Commutative and Associative D. None of these
20	The angle between the vectors $\underline{u}$ = [-3 , 5] and $\underline{v}$ = [6 , -2] is:	A. π/2 B. -3π/2 C. π D. None of these