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

Sr	Questions	Answers Choice
1	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
2	If u =2i +pi + 5k and v = 3i + i +pk are perpendicular , then p=	A. 1 B. 2 C. -1 D. -3
3	The vector k = [0,0,1] is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these
4	If u =[3,-4],then modulus of uis:	A. 5 B. 5i C. -5 D. √5
5	If G is the centroid of the triangle, then GA +GB+GC=	A. 0 B. 1 C. -1 D. 3
6	Vector additon is:	A. Commutative B. Associative C. Commutative and Associative D. None of these
7	Vector i =	A. [1,0] B. [0,1,0] C. [0,0,1] D. None of these
8	If u = xi + yj, then|u|	A. x² + y² B. (x² +y²)² C. x²-y² D. √(x²+y²)
9	The magnitude of vector a 2i-7j is	A. √23 B. √43 C. 3 D. √53
10	If a,b = 0 then	A. a |b B. a||b C. a = b D. None
11	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
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 modulus of a vector i-i+ k is:	A. √3 B. 1 C. √2 D. ∞
14	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
15	The modulus of 12-5i is:	A. 7 B. 13 C. √7 D. 119

16	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>
17	If a=5j + 2j,b=2i -3j, then|a+2b|=	A. √21 B. √97 C. √39 D. None of these
18	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
19	If c = 2i+j+k and d= -1 + 4j +2k, then [c-d]=	A. √7 B. √41 C. √19 D. √(2&7)
20	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