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

Sr	Questions	Answers Choice
1	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
2	The vector k = [0,0,1] is called unit vector along:	A. x -axis B. y - axis C. z- axis D. None of these
3	If|a| =|b|=|a + b|=1, then|a+ b| = 5, then|a-b| =	A. 4 B. 6 C. 5 D. 3
4	Vector i =	A. [1,0] B. [0,1,0] C. [0,0,1] D. None of these
5	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
6	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
7	The modulus of 12-5i is:	A. 7 B. 13 C. √7 D. 119
8	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
9	If u =[3,-4],then modulus of uis:	A. 5 B. 5i C. -5 D. √5
10	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
11	The magnitude of vector a=i-3j+5k is:	A. 3 B. √35 C. √17 D. √35
12	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
13	If|a| =|b| = |a+b|=1, then|a-b| is equal to:	A. 1 B. √3 C. √2 D. 7
14	If u =2i +pi + 5k and v = 3i + i +pk are perpendicular , then p=	A. 1 B. 2 C. -1 D. -3
15	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

16	a _____quantity is one that possesses both magnitude and direction.	A. Scalar B. Vector C. Segment D. None of these
17	If G is the centroid of the triangle, then GA +GB+GC=	A. 0 B. 1 C. -1 D. 3
18	Vector additon is:	A. Commutative B. Associative C. Commutative and Associative D. None of these
19	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
20	If a,b = 0 then	A. a |b B. a||b C. a = b D. None