ECAT Mathematics Chapter 23 Pre Engineering Online Test

Sr	Questions	Answers Choice
1	If u = 2a$\underline{i}$ + $\underline{i}$ - $\underline{k}$ and $\underline{v}$ = $\underline{i}$ +a$\underline{i}$ + 4$\underline{k}$ are perpendicular then a =	A. 4 B. 1/2 C. 3 D. 4/3
2	The angle between the vectors $\underline{u}$ =2$\underline{i}$ - $\underline{i}$ + $\underline{k}$ and $\underline{v}$ = -$\underline{i}$ + $\underline{i}$ is:	A. 3π/2 B. 2π/3 C. 5π/6 D. π/3
3	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
4	If the angle between two vectors $\underline{u}$ and $\underline{v}$ is 0 orπ, then the vectors $\underline{u}$ and $\underline{v}$ are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
5	If the angle between two vectors $\underline{u}$ and $\underline{v}$ is 0 orπ, then the vectors $\underline{u}$ and $\underline{v}$ are:	A. Orthogonal B. Collinear C. Perpendicular D. None of these
6	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
7	The modulus of a vector $\underline{i}$-$\underline{i}$+ k is:	A. √3 B. 1 C. √2 D. ∞
8	If $\underline{u}$ =[3,-4],then modulus of $\underline{u}$is:	A. 5 B. 5i C. -5 D. √5
9	If $\underline{a}$and $\underline{b}$are two vectors then a+b =	A. b + a B. b - a C. ab D. a^ b
10	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