Physics ECAT Pre Engineering Chapter 2 Vectors and Equilibrium

Sr	Questions	Answers Choice
1	The direction of a vector in space requires:	A. X-axis B. X and Y-axes C. XYZ axes D. Y and Z-axes
2	Scalar product is also called:	A. Cross product B. Dot product C. Product scalar D. Product vector
3	When a vector is multiplied by a negative number, its direction:	A. Remains the same B. Changes C. Changes by 180<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° D. None of these
4	If a vector lies in second quadrant, than B_x and B_y are:	A. -,+ B. +,- C. +,+ D. -,-
5	A vector which has magnitude 'one' is called:	A. Resultant vector B. A unit vector C. Position vector D. None of these
6	Two forces of 10 N and 8 N are applied simultaneously to a body. the maximum value of their resultant is:	A. 2 N B. - 2 N C. 18 N D. 36 N
7	If two forces of magnitudes 3.5 and 2.5 N act on a body such that the angle between the forces is zero, then magnitude of the resultant will be:	A. 1.0 N B. 6 N C. 3.5 N D. 12 N
8	Unit vector is used to specify:	A. Magnitude of a vector B. Dimensions of a vector C. Direction of a vector D. Position of a vector
9	A person starts his journey from a point 0, travels 4 Km SW, then 4 Km NW, and finally 4 Km north-east. At what distance is he now from point 0?	A. 0 Km B. 4 Km C. 8 Km D. 12 Km
10	Torque is also called:	A. Momentum B. Linear inertia C. Moment of a force D. Mass
11	A force of 5 n is acting Y-axis. Its component along X-axis is:	A. 7 N B. 5 N C. Zero D. 10 N
		A. 0<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° B. 30<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial;

12	The rectangular components of a vector are equal in magnitude when the vector makes and angle _____with their x-component:	background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° C. 45<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° D. 60<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°
13	Parallel vectors of same magnitudes:	A. Are equal B. Are unequal C. When added give the some equal to zero D. Give the answer equal to zero
14	For measuring the angle between two vectors graphically, we join:	A. Tails of both the vectors B. Tail of one vector with the head of other C. Heads of both the vectors D. None of these
15	The direction of vector in space is specified by:	A. One angle B. Two angles C. Three angles D. None of these
16	Two vectors having different magnitudes:	A. Have their directions opposite B. May have their resultant zero C. Cannot have their resultant zero D. None of these
17	The magnitude of the resultant of two forces may be increased by:	A. Increasing the angle between them B. Decreasing the angle between them C. Drawing a triangle to represent them D. None of these
18	The vector is space has:	A. One Component B. Two Compnents C. Three Components D. Non of these
19	All trigonometric functions (since, cosine tangent etc.) are positive in:	A. 1st Quadrant B. 2nd Quadrant C. 3rd Quadrant D. 4th Quadrant
20	Choose the set of physical quantities, which have both numerical and directional properties:	A. Velocity, mass B. Speed, acceleration C. acceleration weight D. Distance, force