ECAT Physics Chapter 2 Vectors and Equilibrium Online Test

Sr	Questions	Answers Choice
1	By convention, torques producing clockwise rotation are taken as:	A. Positive B. Nagative C. Zero D. None of these
2	Two forces of 10N and 8N are applied simultaneously to a body. The maximum value of their resultant is:	A. 20 N B. -2 N C. 18 N D. 36 N
3	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
4	A vector which has magnitude 'one' is called:	A. Resultant vector B. A unit vector C. Position vector D. None of these
5	The perpendicular distance from the axis of rotation to the line of action of force is called:	A. Moment arm B. Moment of a force C. Torque D. Non of these
6	The direction of a vector in space requires:	A. X-axis B. X and Y-axes C. XYZ axes D. Y and Z-axes
7	All trigonometric functions (since, cosine tangent etc.) are positive in:	A. 1st Quadrant B. 2nd Quadrant C. 3rd Quadrant D. 4th Quadrant
8	When the magnitude of two component vectors are equal to that of their resultant, then the angle between the components is:	A. 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;">° B. 90<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;">° C. 120<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. 150<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;">°
9	The sum of two or more vectors is equal to a single vector which is called:	A. Component vector B. Resultant vector

		C. Product vector D. None of these
10	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
11	All trigonometric functions (sine, cosine, tangent etc) are positive in:	A. 1st quadrant B. 2nd quadrant C. 3rd quadrant D. 4th quadrant
12	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
13	The vector in space has:	A. One component B. Two components C. Three components D. None of these
14	Which of the following is scalar quantity?	A. Electric potential B. Velocity C. Momentum D. Force
15	If a vector lies in second quadrant, than B_x and B_y are:	A. -,+ B. +,- C. +,+ D. -,-
16	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
17	The resultant of two velocities 3 m/sec and 400 cm/sec making an angle 90° with each other is:	A. 20 m/sec B. 5 m/sec C. 3 m.sec D. None of these
18	If the vector 5 N lies along with x-axis, then its component along y-axis will be:	A. Zero B. 5 N C. 7 N D. 10 N
19	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
20	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