

Physics ECAT Pre Engineering Chapter 2 Vectors and Equilibrium

Sr	Questions	Answers Choice
1	Torque is also called:	A. Momentum B. Linear inertia C. Moment of a force D. Mass
2	The direction of vector in space is specified by:	A. One angle B. Two angles C. Three angles D. None of these
3	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
4	An vector of 10 N makes an angle of 45° with x-axis. Angle between its rectangular components with be:	A. 45° B. 90° C. 135° D. Zero
5	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
6	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
7	The vector is space has:	A. One Component B. Two Compnents C. Three Components D. Non of these
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	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
10	Tick the correct answer:	A. Torque is a vector quantity B. Torque is the turning effect of a force C. Torque is called moment of a force D. All of above

11	The magnitude of the resultant of two forces may be increased by:	<p>A. Increasing the angle between them</p> <p>B. Decreasing the angle between them</p> <p>C. Drawing a triangle to represent them</p> <p>D. None of these</p>
12	A vector of magnitude 5 N is added to a vector of magnitude 8 N while the orientations are changeable. Range of their possible sum will be very from:	<p>A. Zero to 3 N</p> <p>B. 1 N to 13 N</p> <p>C. 13 N to 3 N</p> <p>D. None of these</p>
13	Two vectors having different magnitudes:	<p>A. Have their directions opposite</p> <p>B. May have their resultant zero</p> <p>C. Cannot have their resultant zero</p> <p>D. None of these</p>
14	When a vector is multiplied by a negative number, its direction:	<p>A. Remains the same</p> <p>B. Changes</p> <p>C. Changes by 180°</p> <p>D. None of these</p>
15	For measuring the angle between two vectors graphically, we join:	<p>A. Tails of both the vectors</p> <p>B. Tail of one vector with the head of other</p> <p>C. Heads of both the vectors</p> <p>D. None of these</p>
16	If a vector lies in second quadrant, then B_x and B_y are:	<p>A. -, +</p> <p>B. +, -</p> <p>C. +, +</p> <p>D. -, -</p>
17	Two forces of 10 N and 8 N are applied simultaneously to a body. the maximum value of their resultant is:	<p>A. 2 N</p> <p>B. - 2 N</p> <p>C. 18 N</p> <p>D. 36 N</p>
18	A person starts his journey from a point O, travels 4 Km SW, then 4 Km NW, and finally 4 Km north-east. At what distance is he now from point O?	<p>A. 0 Km</p> <p>B. 4 Km</p> <p>C. 8 Km</p> <p>D. 12 Km</p>
19	A vector of magnitude 5 N is added to a vector of magnitude 8 N while the orientations are changeable. Range of their possible sum will be very from:	<p>A. Zero to 3 N</p> <p>B. 1 N to 13 N</p> <p>C. 13 N to 3 N</p> <p>D. None of these</p>
20	Which of the following is scalar quantity?	<p>A. Electric potential</p> <p>B. Velocity</p> <p>C. Momentum</p> <p>D. Force</p>