Physics ECAT Pre Engineering Chapter 2 Vectors and Equilibrium

Sr	Questions	Answers Choice
1	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
2	A vector which has magnitude 'one' is called:	A. Resultant vector B. A unit vector C. Position vector D. None of these
3	The vector in space has:	A. One component B. Two components C. Three components D. None of these
4	The vector is space has:	A. One Component B. Two Compnents C. Three Components D. Non of these
5	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
6	Two vectors to be combined have magnitudes of 60 N and 35 N. Pick the possible answer:	A. 100 N B. 70 N C. 20 N D. Zero
7	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
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;">°
		A. Zero to 3 N

9	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:	B. 1 N to 13 N C. 13 N to 3 N D. None of these
10	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
11	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
12	If x-component of a vector is -3 N and y-component is 3 N, then angle of resultant vector will x-axis is:	A. 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;">° B. 315<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. 135<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. 225<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	An vector of 10 N makes an angle of 45° with x-axis. Angle between its rectangular components with be:	A. 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;">° 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. 135<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. Zero
14	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
15	Which of the following is scalar quantity?	A. Electric potential B. Velocity C. Momentum D. Force
16	By convention, torques producing clockwise rotation are taken as:	A. Positive B. Nagative C. Zero D. None of these
17	Cosine of an angle is positive in:	A. 2nd quadrant B. 3rd quadrant C. 4th quadrant D. All of these
18	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
19	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
20	Torque is also called:	A. Momentum B. Linear inertia C. Moment of a force D. Mass