PPSC Physics Chapter 1 MECHANICS

Sr	Questions	Answers Choice
1	When two vectors have opposite directions we say that they are	A. Parallel B. Antiparallel C. Perpendicular D. Out of phase
2	If two non zero vectors are perpendicular to each other than their scalar product is equal to	A. 1 B. -1 C. 0 D. infinity
3	Two vectors of magnitudes 5 N and 7 N respectively are acting on a body if the angle between them is a right angle, their resultant vector will be.	A. 2 N B. 4 N C. 6 N D. 8 N
4	A force of 10 N is acting along z-axis, its component along x -axis and y-axis is	A. 2 N , 8 N B. 3 N, 7 N C. 5 N each D. Zero
5	If a force of 50 N is acting along x axis , then its component along y-axis will be.	A. Zero B. The same C. Of the half magnitude D. Of the double magnitude
6	The magnitude of resultant of three forces is 3. Its x -component is 2 and y component is 1, then its z-component will be.	A. 1 B. 2 C. 3 D. 4
7	If two non zero vectors are perpendicular to each other then their scalar product is equal to.	A. -1 B. 1 C. 0 D. Infinity
8	Two forces each of 10 N magnitude act on a body It the forces are inclined at 30° and 60° with x-axis, then the x-component of their resultant is.	A. 10 N B. 1.366 N C. 13.66 N D. 1.35 .6 N
9	If a force of 10 N makes an angle of 30° with x-axis its component is given by	A. 1.866 N B. 8.66 N C. 0.89 N D. 0.866 N
10	The resultant of two force 3 N and 4 N making an angle 90° with each other is.	A. 1 N B. 3 N C. 5 N D. 10 N
11	An object moves 5.0 m north and then 3.0 m south . Find both the distance travelled and the magnitude of the displacement vector.	A. 2.0 m, 8.0 m B. 8.0 m, 2.0 m C. 8.0 m, 8.0 m D. 2.0 m, 2.0 m
12	The product of two non zero numbers is.	A. A vector quantity B. A unit vector C. Always zero D. Never equal to zero
13	Which vector gives the displacement from one point another in space.	A. Null vector B. Position vector C. Unit vector D. Distance vector
14	Which vector can be used to locate the centre of mass of a collection of particles.	A. Null vector B. Unit vector C. Position vector D. Distance vector
15	The corss product of two vectors is zero when they	A. Are parallel to each other B. Are perpendicular to each other C. Are at an angle of 120 ^{o}

		D. Both are equal
16	By decreasing angle between two vectors their cross product.	A. Increases B. Decreases C. Remains the same D. Vanishes
17	If the dot product of two non zero vectors vanishes the vectors will be.	A. any scalar quantity B. Any negative number C. Its magnitude but not direction D. Its magnitude and direction
18	When a vector is multiplied by a negative number its direction.	A. Remains unchanged B. Changes by 180° C. Becomes horizontal D. Vertical to each other
19	Unit vector of a vector A describes	A. Magnitude of a given vector B. Direction of given vector C. Shape of a given vector D. Magnitude and direction of a given vector
20	Two forces act together on an object the magnitude of their resultant force is minimum when they act at	A. 0° B. 45^oC C. 90° D. 180°