

Physics - ICS Part 1 Physics Chapter 2 Short Questions Test

Q1. Can you add zero to a null vector?

Ans 1: No, zero can't be added to a null vector because zero is a scalar and scalars can't be added to vectors Only the physical quantities of same nature can be added.

Q2. Write down the steps for addition of vectors by rectangular components method.

Ans 1:

- 1. Find x and y components of all given vectors.
- 2. Find Rx by adding x-components of all the vectors.
- 3. Find R_{Y} adding y-components of all the vectors.

Q3. Discuss the multiplication of a vector by a number?

Ans 1: We can multiple a vector by a number. If the number is positive, then the direction of given vector and product vector will remain the same. If the number id negative, then the given vector and product vector will be acting in opposite direction.

Q4. Define Torque (or) Moment of force?

Ans 1: The turning effect produced in a body about a fixed point due to an applied force is known as torque (or) Moment of force.

Q5. Define unit vector?

Ans 1: A vector whose magnitude is one is known as unit vector

Q6. Define the following?

- 1. Parallel vectors
- 2. Equal vectors
- 3. null vectors
- 4. Anti parallel vectors
- 5. Negative of a vectors

Ans 1: Parallel Vectors: Vectors are said to be parallel to each other if they are acting in the same direction.

Anti Parallel Vectors: Vectors are said to be anti parallel to each other if they are acting in opposite direction.

Equal vectors: Two vectors are said to be equal, if they have the same magnitude and same direction.

Negative of a vector: Negative of a vector is that vector whose magnitude is the same to that of the given vector but opposite in direction.

Null Vector: A vectors whose magnitude is zero is known as null vector.

Ans 1: The vector sum of all torque acting on any object must be zero. When this condition of equilibrium is satisfied, there is no angular acceleration and body will be in rotational equilibrium. Hence, a body cannot rotate about center of gravity under the action of its weight.		
added. Vectors can be added to vectors and scalars are added in scalars, but the vectors can't be added to scalar. Q9. State condition of rotational equilibrium. Ans 1: The vector sum of all torque acting on any object must be zero. When this condition of equilibrium is satisfied, there is no angular acceleration and body will be in rotational equilibrium. Hence, a body cannot rotate about center of gravity under the action of its weight.	⊋8. Is it possibl	e to add a vector quantity to a scalar quantity?
Ans 1: The vector sum of all torque acting on any object must be zero. When this condition of equilibrium is satisfied, there is no angular acceleration and body will be in rotational equilibrium. Hence, a body cannot rotate about center of gravity under the action of its weight. 210. Give two conditions of equilibrium.		
When this condition of equilibrium is satisfied, there is no angular acceleration and body will be in rotational equilibrium. Hence, a body cannot rotate about center of gravity under the action of its weight. Q10. Give two conditions of equilibrium.	⊋9. State condi	tion of rotational equilibrium.
·	When this cond	tion of equilibrium is satisfied, there is no angular acceleration and body will be in rotational equilibrium.Hence, a
Ans 1:	Q10. Give two	conditions of equilibrium.
	Ans 1:	