Physics (New Book) - FSC Part 1 Physics Chapter 2 Short Questions Preparation

Q1. When body is in .

1. Translation equilibrium
2. Rotational equilibrium

Ans 1:

Q2. Define torque.Write its units and dimensions,

Ans 1:

Q3. What are rectangular components of a vector?

Ans 1: The components of a vector which are perpendicular to each are called rectangular components.

Q4. How would the two vectors of the same magnitudes have to be oriented,if they were to be combined to give a vector of the same magnitude?

Ans 1: The two vectors of equal magnitudes are combined to give a resultant vector of same magnitude when must be oriented at an angle of 120^0 With each other.

Q5. Differentiate between static and dynamic equilibrium.

Ans 1: Static Equilibrium: If a body is at rest, then it is said to be in static equilibrium.
Dynamic Equilibrium: If the body is moving with uniform velocity, then it is said to be in dynamic equilibrium.

Q6. What are rectangular components of a vector?

Ans 1: The components of a vector which are perpendicular to rectangular components.each other are called

---

Q7. Discuss the subtraction of vector ?

Ans 1:

Q8. Define Physical quantities & Magnitude?

Ans 1: **Physical Quantities:**Those quantities which can be measured are known as physical quantities. For example, length,

mass, temperature, speed, velocity, acceleration, energy , torque etc.
Magnitude:A number with proper unit is known as magnitude for example, 100 kg, 50 N, 1000 m etc.

Q9. You are falling off the edge.What should you do to avoid falling?

Ans 1: You should bend yourself backward to avoid falling off the edge.Because of this center of gravity will shift backward.

Q10. DIscuss the addition of vectors by graphical Method or geometrical Method?

Ans 1: We can add two or more than two vectors by geometrical method or graphical method to get their resultant vector. we use "Head-to-Tail rule for addition of vectors by graphical method or geometrical method.
The following steps must be followed to add vectors buy head-to-tail rule:

1. Select a suitable scale for the representation of given vectors
2. Draw the 1st vector according to the selected scale in the given direction
3. Draw the second vector according to the selected scale in the specified direction such that its tail touches the head of the first vector.
4. Now draw the 3rd vector according to the selected scale in the specified direction such that its tail touches the head of the second vector
5. Continue the above process for given number of vectors.
6. For getting the resultant vector, combination the tail of the first vector.
7. Measure the length of R which will given its magnitude.
8. To determine the direction of R measure the angle of R with respect to positive X-direction in anti clock wise sense.
