­­­­­­­­­­­­­­­­­­­ Applied Physics

Physics:-

Physics is the branch of science which deals with the study of physical universe: energy, matter and how they are related.

Or

Physics is the branch of science which deals with the study of matter and energy and their mutual relationship.

Rest:-

A body is at rest with respect to an observer if it does not change its position with respect to that observer.

Or

A body does not change its position with respect to its surrounding is called Rest.

Motion:-

A body is in state of motion with respect to an observer if it change its position with respect to that observer.

Or

A body change its position with respect to their surrounding is called motion.

Note: rest and motion are not absolute by these relative from reference point.

Distance:-

The length of path traveled between two positions is called distance.

Or

The length of path traveled or covered by a body is called distance.

SI unit:-

SI unit of distance is meter (m).

Dimension:-

Dimension of distance is [L].

Note:

Distance has no direction and therefore it is a scalar quantity. Distance usually denoted by x,r,s,l etc.

Displacement:-

The shortest directed distance between two positions is called displacement.

Or

Straight distance from one point to another point is called displacement.

SI unit:-

SI unit of displacement is meter(m).

Dimension:-

Dimension of displacement is [L].

Note:

Displacement has direction and therefore it is a vector quantity. Displacement usually denoted by x,r,s,l, d, t etc.

Speed:-

Measure of distance(s) covered with the passage of time(t) is called speed.

Or

Time rate of change of distance is called speed.

Mathematically: