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SUBJECT:- PHYSICS

CLASS:- IXTH

DATE:25/11/XX

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 3. (GRAVITATION REVISION)(BASED ON NCERT PATTERN)

Q1. When do we say that work is done?

Work is said to be done when a force causes displacement of an object in the direction of applied force.

Q2. Write an expression for the work done when a force is acting on an object in the direction of its displacement.

Work done = Force x Displacement

Q3. Define 1J of work.

When a force of 1N causes a displacement of 1m, in its own direction the work done is said to be one joule.

Q4. A pair of bullocks exerts a force of 140 N on a plough. The field being ploughed is 15 m long. How much work is done in ploughing the length of the field?

Work done = Force x Displacement = 140 x 15 = 2,100 J

Q5. What is the kinetic energy of an object?

The energy possessed by a body by virtue of its motion is called kinetic energy.

Q6. Write an expression for the kinetic energy of an object.

The expression is $KE = \frac{1}{2} mv^2$, where 'm' is the mass and 'v' is the velocity of the body.