

## Work and energy class IX

1. What do you understand by 'work'? Sometime you are working hard like studying .Is there work is done ,If not why give reason ?
2. Define 1 J of work ?
3. A force of 7 N on an object the displacement is 8 m in the direction of the force. What is the work done in the case?
4. State the situation when work done is negative.
5. A pair of bullock 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?
6. What do you understand by 'Energy'? if you are riding a bicycle list the form of energy you are noticing?
7. What is kinetic energy? Find the formula of KE?
8. The kinetic energy of an object of mass  $M$  moving with a velocity of 5 m/s is 25 J. What will be its kinetic energy when its velocity is increase three times?
9. What do you understand by potential energy?
10. An object of mass 12 kg is at a certain height above the ground. If the potential energy of the object is 480 J. Find the height at which the object is with respect to the ground  $g = 10$ .
11. State law of conservation of mass.