

Class: 9
Subject: Physics
Topic: Work, energy and power
No. of Questions: 29

- Q. 1. Why do living beings and machines need energy?
- Q. 2. What is work? Derive expression for work done.
- Q. 3. What are the two factors needed to describe work?
- Q. 4. Define 1 Joule?
- Q. 5. When can we say that work is positive or negative?
- Q. 6. Write the expression for work done when force is applied at an angle with the horizontal direction?
- Q. 7. Write the conditions when work done will be zero?
- Q. 8. Is work done if body rotates in circular path?
- OR, is it possible that a force acts on a body still the work done is zero? Explain with an example.
- Q.9. How much work is done to raise 5 kg body by 2 m?
- Q. 10. How much work is done by a force of 10 N to displace a body by 2 m?
- Q. 11. Work done by a body of mass 10 kg to lift it through certain height is 490 J . Calculate the height through which the body is lifted?
- Q. 12. A force of 10 N acting on at angle 60 degreee with the horizontal direction displaces body 2 m along the surface of floor. Calculate the work done?
- Q. 13. Calculate the amount of work done in drawing a bucket of water weighing 15 kg from a well of depth 30m.
- Q. 14. Calculate the work done to attain a car of velocity 30m/s having mass 100kg?

- Q. 15. No work is done by a person moving on a road while carrying box on his head. Justify
- Q.16. what is energy. Write the kinds of energy?
- Q. 17. How much work is done by a man who tries to push the wall of house?
- Q. 18. What are the kinds of mechanical energy?
- Q. 19. Derive the expression for potential energy of a body above the ground level.
- Q. 20. Derive the expression for potential energy of a body above the ground level.
- Q.21. what kind of energy is possessed by the following.
- (a) Flowing water (b) Water stored in dam (c) Wrist watch
- Q.22. A horse and a calf are running with same speed. Which one of the two has more kinetic energy?
- Q.23. A bus and a car have the same kinetic energy. Which one of the two is moving fast?
- Q. 24. A ball is thrown vertically upward and its velocity keeps on changing. What happen to the KE when its velocity will be zero?
- Q. 25. Is potential energy a vector or a scalar quantity?
- Q. 26. Give two examples where a body possesses both, kinetic energy as well as potential energy.
- Q. 27. What do you mean by thermal Energy?
- Q.28. When we cut a log of wood with a saw it becomes warm, why?
- Q. 29. Why do our hands become warm when rubbed against each other? Explain