

INTERNATIONAL INDIAN SCHOOL BURAIDAH

WORKSHEET FOR THE ACADEMIC YEAR 2026-27

Class-11 Subject: Physics

CHAPTER 05: WORK ENERGY AND POWER

1. The rate of doing work is called —————

- a. Force b. Acceleration c. Power d. Displacement

2. Which is the type of collision in which both the linear momentum and the kinetic energy of the system remain conserved?

- a. Inelastic Collision b.. Elastic Collision c. Destructive collision d. None of the options

3. Collision between marble balls is which type of collision?

- a. Inelastic Collision b. Elastic Collision c. Destructive collision d. None of the options

4. What is the power utilized when work of 1000 J is done in 2 seconds?

- a. 100 W b.200 W c.20 W d.500 W

5. Energy is _____

- a) Work b) The ability to create work c) Quantification of work d) Force multiplied by displacement

6. What is the correct expression for Work?

- a) $W = F \cdot ds$ b) $W = P/t$ c) $W = E$ d) $W = E/t$

7. Work is said to be done when a force produces:

- (a) Mass (b) Displacement (c) Acceleration (d) Momentum

8. The SI unit of work is:

- (a) Watt (b) Joule (c) Newton (d) Pascal

9. If force and displacement are perpendicular, the work done is:

- (a) Maximum (b) Zero (c) Negative (d) Infinite

10. The kinetic energy of a body is:

- (a) mgh (b) $\frac{1}{2}mv^2$ (c) mv (d) Fd

11. The SI unit of power is:

- (a) Joule (b) Newton (c) Watt (d) Metre

12. Gravitational potential energy near the Earth's surface is:

(a) $\frac{1}{2}mv^2$ (b) mgh (c) F/t (d) ma

13. Power is the rate of doing:

(a) Force (b) Work (c) Energy (d) Displacement

14. One kilowatt is equal to:

(a) 10 W (b) 100 W (c) 1000 W (d) 10,000 W

15. A force of 10 N moves an object through 2 m in the direction of the force. Find the work done.

16. Find the kinetic energy of a 2 kg body moving with a speed of 3 m/s.

17. Find the potential energy of a 2 kg object raised to a height of 5 m. Take $g = 10 \text{ m/s}^2$.

18. State the work–energy theorem.

19. A bullet of mass 50 g has an initial speed of 200 m/s and emerges from a wooden block with 10% of its original kinetic energy. What is the final speed of the bullet?

20. Two different unknown masses A and B collide. A is initially at rest when B has a speed v . After collision B has a speed $v/2$ and moves at right angles to its original direction of motion. Find the direction in which A moves after collision.