ANSWERS Key, Science Nov - 24

1.   **Answer:** (b) W = F.s

Explanation: The work done is defined as the product of the magnitude of the force acting on the body and the displacement in the direction of the force.

2.   **Answer:** (c) 0

Explanation: The work done is zero when the force acting on a body causes no displacement.

3.   **Answer:** (d) Kinetic Energy

Explanation: Kinetic energy is defined as the work needed to accelerate a body of a given mass from rest.

4.   **Answer:** (a) Mechanical energy

Explanation: Mechanical energy **=** kinetic energy + potential energy

5.   **Answer:** (d) 1000 watts

Explanation: 1 kilowatt = 1000 watts or 1 kilowatt = 1000 J/s

6.   **Answer:** (b) 1kWh

Explanation: The energy used in an hour at the rate of 1kW is 1kWh.

7.   **Answer:** (d) All the above options

Explanation: Factors affecting kinetic energy are mass, momentum, and velocity.

8.   **Answer:** (b) Higher Kinetic Energy

Explanation: When two identical bodies are in motion, the body with a higher velocity has higher kinetic energy.

9.   **Answer: 9** (c) Its potential energy decreases and kinetic energy increases-during the fall.
Explanation: The P.E directly proportional to height, where as K.E will decrease if P.E. increases ,as per law of conservation of energy

10.   **Answer:** (c) 0

Explanation: If the displacement is perpendicular to the force, then the work done is zero.

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