Claudia Vaideanu, teacher

Choose the correct answers.
For each correct answer, 1 point is awarded.

1. The energy of a system is a process quantity.
   a) True
   b) False

2. The energy of a system only varies as a result of an interaction.
   a) True
   b) False

3. The mechanical energy is the physical quantity associated with the property of a system to be capable of exerting forces capable of performing mechanical work.
   a) True
   b) False

4. The unit of measurement for mechanical energy is W.
   a) True
   b) False

5. Mechanical energy has two components: kinetic energy and potential energy.
   a) True
   b) False

6. The energy possessed by any object in motion relative to a reference system is called kinetic energy.
   a) True
   b) False

7. Kinetic energy depends on the chosen reference system.
   a) True
   b) False

8. Choose the correct mathematical relationship for calculating kinetic energy.
   a) $E_c = \dfrac{mv}{2}$

   b) $E_c = \dfrac{mv^2}{2}$

   c) $E_c = \Delta L$

   d) $\Delta E_c = \Delta L$

9. A stone with a mass of 0.25 kg, falling freely, has a kinetic energy of 0.25 J. Calculate the speed of the stone.
   a) 5 m/s
   b) 10m/s
   c) 12 m/s
   d) 15 m/s

Correct answers:
1 – b
2 – a
3 – a
4 – b
5 – a
6 – a
7 – a
8 – b
9 – a
10 - b

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