

Physics
Unit 3 Assessment

Date: _____

Name: _____

Choose the correct answer.

1. Energy:
 - a) Disappears when we use it.
 - b) Appears in the sun.
 - c) Neither appears, nor disappears, only changes.
 - d) Is heat.

2. What is energy?
 - a) Something that moves.
 - b) The body temperature.
 - c) The capacity to do a job.
 - d) The substance that attracts a body.

3. Which of the following sentences describes correctly what happens at the summit of a roller coaster, one second before a cart starts descending?
 - a) Kinetic energy equals potential energy at that point.
 - b) There is maximum potential energy and minimum potential energy.
 - c) There is maximum potential energy and kinetic energy is zero.
 - d) The total mechanical energy is zero.

4. When we measure the temperature of a metal spoon and a wooden spoon that were in a room with no sun light for a few hours, we find that:
 - a) The temperature of the wooden spoon is more than the one of the metal spoon.
 - b) The temperature of the wooden spoon is lower than the one of the metal spoon.
 - c) The temperature of the wooden spoon is as much as the one of the metal spoon.

5. In an ideal gas, the rise in the collisions number with the recipient walls implies an increase of gas pressure.
 - a) True.
 - b) False.

6. In an ideal gas, if temperature is constant, a reduction in the recipient volume implies a lower gas pressure.
 - a) True.
 - b) False.

7. In an ideal gas, if temperature is risen, the kinetic energy of the gas particles:
- Increases.
 - Decreases.
 - Is maintained.
 - Goes back.
8. Gold density is $1.93 \times 10^4 \text{ kg/m}^3$, while silver density is $1.05 \times 10^4 \text{ kg/m}^3$. If I want to make a similar size gold and a silver medal, which one has the lower mass?
- The gold medal.
 - The silver medal.
 - Both have the same mass.
 - The bronze medal.
9. Due to the high quality of salt in the Death Sea, a human will always float in its waters. Which of the following sentences best describes this situation?
- The human body's density is more than the one of the Death Sea.
 - This phenomenon has nothing to do with the Death Sea density.
 - The human body density is lower than the one of the Death Sea and that is why it never sinks.
 - The human body's density is exactly equal to the density of the Death Sea.
10. When measuring certain substance temperature, a mercury thermometer gives a measure of 24°C , what temperature does the mercury have?
- 12°C .
 - 24°C .
 - The mercury temperature is just higher than the substance temperature.
 - The mercury temperature is lower than the substance temperature.
11. Heat flux direction will always be:
- From the body with more temperature to the one with lower temperature.
 - From the body with lower temperature to the one with more temperature.
 - At the same time, in both ways.
 - First from the more to the lower and then from the lower to the more.
12. The transformation of matter from solid to liquid is known as:
- Solidification.
 - Condensation.
 - Fusion.
 - Sublimation.
13. In the ISU, temperature is measured in:
- Centigrade or Degrees Celsius.
 - Fahrenheit.
 - Kelvin.
 - Calories.

14. What is the name of the phase change from liquid to solid?
- Solidification.
 - Superficial tension.
 - Vaporization.
 - Condensation.
15. In a pot with boiling water, heat is transmitted by:
- Convection.
 - Radiation.
 - Convergence.
 - Conduction.
16. Temperature measures:
- The quantity of heat in a body.
 - The molecules size.
 - The aggregation state.
 - The average kinetic energy.
17. The Sun transmits heat to Earth by:
- Convection.
 - Radiation.
 - Convergence.
 - Conduction.
18. The property of gasses of increasing their volume when external forces stop acting on them is known as:
- Volume.
 - Density.
 - Expandability.
 - Compressibility.
19. The main aggregation states of matter are:
- Solid, liquid, atomic.
 - Plasma, solid, atomic.
 - Atomic, gas, liquid.
 - Gas, solid, liquid.
20. How much is 40K in °C?
- 233 °C.
 - 0 °C.
 - 233 °C.
 - 243 °C.
21. What is pressure?
- It is velocity per unit area.
 - It is force per unit area.

- c) It is the necessary energy to move a body.
- d) It is the density of a body.

22. Where is there more atmospheric pressure?

- a) At the Everest summit.
- b) In Mexico City.
- c) At home.
- d) At sea level.

Physics

Unit 3 Assessment Answer Key

- 1. c
- 2. c
- 3. c
- 4. a
- 5. a
- 6. b
- 7. a
- 8. a
- 9. c
- 10. b
- 11. a
- 12. c
- 13. c
- 14. a
- 15. d
- 16. d
- 17. b
- 18. c
- 19. d
- 20. c
- 21. b
- 22. a

