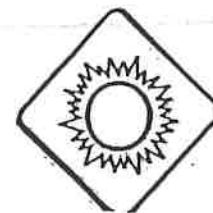


Introduction To Energy



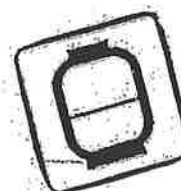
True/False

Indicate whether the statement is true or false.

- _____ 1. Most energy transformations are very efficient.
- _____ 2. Most energy savings in recent years have come from improved technologies in industry, vehicles, and appliances.
- _____ 3. Electricity is said to be a secondary source of energy.
- _____ 4. Over the course of a year the average American uses about as much energy as is contained in 250 gallons of oil.
- _____ 5. Incandescent light bulbs are the very energy efficient light bulbs.
- _____ 6. Most of the energy lost in energy transformations is converted to potential energy.
- _____ 7. If every person in the U.S. used as much energy now as people did in the 1970's we would be using approximately double the energy we use today.
- _____ 8. Americans tend to use more energy when prices are high.

Multiple Choice

Identify the choice that best completes the statement or answers the question.



- _____ 9. Energy is defined as the ability to _____ and _____
 - a. walk, talk
 - b. do work, produce change
 - c. light a room, start a car
 - d. grow, prosper
- _____ 10. The law of conservation of energy states that
 - a. energy gets transferred between objects
 - b. mass is not lost in a chemical reaction
 - c. energy is neither created nor destroyed
 - d. energy is best used in science class

A silly old man is a fossil fool.



11. When we use energy it

- a. gets used up
- b. is used very efficiently

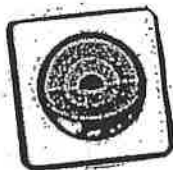
- c. it goes out into space
- d. it changes from one form to another

12. BTU stands for

- a. best teacher in the universe
- b. British Thermal Unit
- c. Betty Tall Unit
- d. British Towns United.

13. Rank the following from most to least energy efficient.

- a. the human body
- b. an electric power plant
- c. an incandescent light bulb



Completion

Complete each statement.

14. We call petroleum, coal, natural gas, uranium and propane _____ because they cannot be replenished in a short period of time.

15. Biomass, geothermal, hydropower, solar and wind are _____ because they can be replenished in a short period of time.

16. The number 1 source for generating electricity in the US is _____.

17. Every day, the average American uses about as much energy as is stored in _____ of gasoline.

18. What is another name for energy use?

19. Define Potential Energy and list its forms.

20. Define Kinetic Energy and list its forms.

21. List the renewable energy sources.





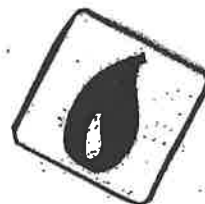
22. List the nonrenewable resources.

23. The fuel for your body is _____ and its overall efficiency is about ____%. The rest of the energy is used as _____.

24. The U.S. Department of Energy uses the following categories to classify energy users, _____,

_____, and

_____.



25. What energy users are included in the industrial sector?

26. List the energy users in the residential/commercial sector.

27. List the energy users in the transportation sector.

28. Why are residential and commercial lumped together?

29. Define gross domestic product.



Matching

- | | |
|------------------|----------------------|
| a. sound | g. stored mechanical |
| b. lightening | h. wasted |
| c. nuclear | i. radiant |
| d. motion | j. thermal |
| e. chemical | k. electrical |
| f. gravitational | |

___ 30. Energy stored by objects by the application of a force.

___ 31. Electromagnetic energy that travels in transverse waves.

___ 32. Energy stored in the nucleus of an atom.

- ___ 33. The movement of energy through substances in longitudinal waves.
- ___ 34. The energy stored in the bonds of atoms and molecules.
- ___ 35. The movement of objects and substances from one place to another.
- ___ 36. The energy of position or place..
- ___ 37. The movement of electrons.
- ___ 38. Heat energy, the internal energy in substances.



Match the energy use amount with the sector of the economy using it.

- | | |
|----------|----------|
| a. 18.6% | c. 30.8% |
| b. 22.6% | d. 28.1% |

- ___ 39. residential
- ___ 40. commercial
- ___ 41. industry
- ___ 42. transportation

