**CHAPTER 5 ENERGY TEST**

**Multiple Choice**

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

\_\_\_\_ 1. When a rubber band is stretched, it has \_\_\_\_ energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | potential | c. | chemical |
| b. | kinetic | d. | nuclear |

\_\_\_\_ 2. A burning fire produces \_\_\_\_ energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | kinetic and potential | c. | electrical and thermal |
| b. | radiant and thermal | d. | chemical and radiant |

\_\_\_\_ 3. In every energy transformation, some energy is always “lost” as \_\_\_\_ energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | chemical | c. | electrical |
| b. | radiant | d. | thermal |

\_\_\_\_ 4. In a nuclear power plant, nuclear energy is first changed to \_\_\_\_ energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | electrical | c. | chemical |
| b. | thermal | d. | radiant |

\_\_\_\_ 5. \_\_\_\_ is a fossil fuel.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Oil | c. | Electricity |
| b. | Water | d. | Nuclear fuel |

\_\_\_\_ 6. \_\_\_\_ is an renewable resource.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Coal | c. | Wind |
| b. | Natural gas | d. | Oil |

\_\_\_\_ 7. A limiting factor for using nuclear energy is the \_\_\_\_ produced.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | flooding | c. | waste |
| b. | pollution | d. | heat |

\_\_\_\_ 8. Increasing the speed of an object \_\_\_\_ its potential energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | does not affect | c. | decreases |
| b. | increases | d. | changes |

\_\_\_\_ 9. Which of the following devices does NOT make use of electrical energy?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | upright piano | c. | toaster |
| b. | radio | d. | digital camera |

\_\_\_\_ 10. A bus engine transfers chemical potential energy into \_\_\_\_ so that the bus moves.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | thermal energy | c. | electrical energy |
| b. | gravitational potential energy | d. | kinetic energy |

\_\_\_\_ 11. According to the law of conservation of energy, the total amount of energy in the universe \_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | remains constant | c. | increases |
| b. | changes constantly | d. | decreases |

\_\_\_\_ 12. Which of the following is NOT an example of a change caused by energy?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | fireworks exploding | c. | flower blooming |
| b. | rock sitting in the middle of the yard | d. | hammer striking a nail |

\_\_\_\_ 13. In a fireworks display, energy is released in \_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | light | c. | heat |
| b. | sound | d. | all of the above |

\_\_\_\_ 14. Work \_\_\_\_\_ energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | transmits | c. | transfers |
| b. | reflects | d. | stops |

\_\_\_\_ 15. Work depends on \_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | force | c. | both force and distance |
| b. | distance | d. | neither force nor distance |

\_\_\_\_ 16. Which of the following is NOT a form of energy?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | mechanical energy | c. | paper energy |
| b. | nuclear energy | d. | electrical energy |

\_\_\_\_ 17. Sunlight is produced through \_\_\_\_ energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | nuclear | c. | thermal |
| b. | radiant | d. | electrical |

\_\_\_\_ 18. A microwave oven uses \_\_\_\_\_ energy to heat food.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | nuclear | c. | thermal |
| b. | radiant | d. | electrical |

\_\_\_\_ 19. When energy changes from one form to another, it is called energy \_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | radiations | c. | solutions |
| b. | transmissions | d. | transformations |

\_\_\_\_ 20. Whenever two surfaces interact, some energy is lost to thermal energy due to \_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | surrounding heat | c. | friction |
| b. | water | d. | fusion |

\_\_\_\_ 21. Which of the following does NOT reduce friction?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | grease | c. | oil |
| b. | cotton | d. | graphite |

\_\_\_\_ 22. A cell phone transmits your voice by transforming \_\_\_\_\_ energy into \_\_\_\_\_ energy and then into \_\_\_\_\_ energy.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | radiant, electrical, sound | c. | sound, electrical, thermal |
| b. | sound, thermal, electrical | d. | sound, electrical, radiant |

\_\_\_\_ 23. Which of the following is NOT a biomass material?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | wood | c. | oil |
| b. | dried peat moss | d. | manure |

\_\_\_\_ 24. What is the most common source of energy in the United States?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | coal | c. | petroleum |
| b. | natural gas | d. | renewable energy |

\_\_\_\_ 25. Which of the following is NOT a way to conserve energy?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | driving to the neighbor’s house | c. | turning off the light in a room |
| b. | riding your bike to school | d. | taking a shorter shower |

**Essay**

1. Explain one advantage and one disadvantage for using nuclear energy and using wind energy.