

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Water pressure is greatest against the
 - A) sides of a submerged object.
 - B) bottom of a submerged object.
 - C) top of a submerged object.
 - D) is the same against all surfaces
 - E) none of these

- 2) The pressure in a liquid depends on liquid
 - A) density. B) depth.
 - C) both of these D) neither of these

- 3) The reason that buoyant force acts upward on a submerged object is that
 - A) upward pressure against the bottom is greater than downward pressure against the top of the submerged object.
 - B) if it acted downward, nothing would float.
 - C) it acts in a direction to oppose gravity.
 - D) the weight of fluid displaced reacts with an upward force.

- 4) A completely submerged object always displaces its own
 - A) density of fluid.
 - B) volume of fluid.
 - C) weight of fluid.
 - D) all of these
 - E) none of these

- 5) The buoyant force on an object is least when the object is
 - A) submerged near the surface. B) partly submerged.
 - C) submerged near the bottom. D) none of these

- 6) Atmospheric pressure is caused by the
 - A) weight of the atmosphere.
 - B) temperature of the atmosphere.
 - C) effect of the sun's energy on the atmosphere.
 - D) density of the atmosphere.

- 7) In drinking soda or water through a straw, we make use of
- A) atmospheric pressure.
 - B) surface tension.
 - C) capillary action.
 - D) Bernoulli's principle.
 - E) none of these
- 8) The flight of a blimp best illustrates
- A) Bernoulli's principle.
 - B) the principle of Archimedes.
 - C) Pascal's principle.
 - D) Boyle's law.
- 9) The faster a fluid moves, the
- A) less its internal pressure.
 - B) internal pressure is unaffected.
 - C) greater its internal pressure.
- 10) A suction cup sticks to a wall. It is
- A) pulled to the wall by the vacuum.
 - B) pushed to the wall by the atmosphere.
 - C) both of these
 - D) neither of these
- 11) When you touch a cold piece of ice with your finger, energy flows
- A) from your finger to the ice.
 - B) actually, both ways.
 - C) from the ice to your finger.
- 12) Which of the following normally warms up fastest when heat is applied?
- A) glass
 - B) wood
 - C) iron
 - D) water
 - E) All of the above choices are equally true.
- 13) The moderate temperatures of islands throughout the world has much to do with water's
- A) high evaporation rate.
 - B) vast supply of internal energy.
 - C) absorption of solar energy.
 - D) poor conductivity.
 - E) high specific heat.
- 14) When an iron ring is heated, the hole becomes
- A) larger.
 - B) smaller.
 - C) neither smaller nor larger.
 - D) either smaller or larger, depending on the ring thickness.

- 15) When a bimetallic bar made of copper and iron strips is heated, the bar bends toward the iron strip. The reason for this is
- A) copper expands more than iron.
 - B) iron gets hotter before copper.
 - C) iron expands more than copper.
 - D) copper gets hotter before iron.
 - E) none of these
- 16) If glass expanded more than mercury, then the column of mercury in a mercury thermometer would rise when the temperature
- A) decreases. B) increases. C) neither of these
- 17) Substances absorb heat energy by the process of
- A) convection. B) radiation. C) conduction. D) all of these
- 18) Metals are both good heat conductors and good electrical conductors because of the
- A) ability of metals to transfer energy easily.
 - B) similarity between thermal and electrical conductive properties.
 - C) relatively high densities of metals.
 - D) looseness of outer electrons in metal atoms.
 - E) high elasticity of metals.
- 19) Your feet feel warmer on a rug than on a tile floor because a rug
- A) for the same mass has more internal energy than tile.
 - B) is usually warmer than tile.
 - C) is a better insulator than tile.
 - D) all of these
 - E) none of these
- 20) Hydrogen and oxygen molecules in a gas sample have the same temperature. This means the hydrogen molecules, on the average, have the same
- A) speed and the same kinetic energy.
 - B) kinetic energy, but less speed.
 - C) kinetic energy, but more speed.
 - D) speed, but more kinetic energy.
 - E) speed, but less kinetic energy.