

NAME \_\_\_\_\_

Survival Sleep-Out Quiz

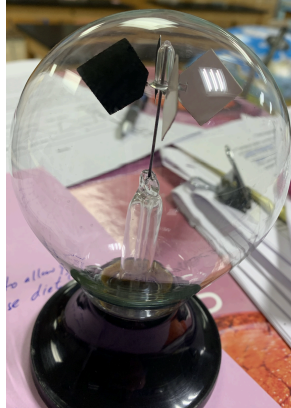
Always choose the ***most*** correct answer.

1. Which factor, which as it increases, the rate of conduction decreases?
  - A. distance
  - B. temperature difference
  - C. time
  - D. thermal conductivity
  - E. A and C
  - F. None of the above
  
2. If one wishes to cool down a hot beverage with haste, one should...
  - A. pour the colder milk in the last moment before the drinking vessel touches the lips
  - B. not pour the colder milk into the hot beverage at all, because chivalry is dead
  - C. pour the milk in right away
  - D. wait exactly 2 minutes, then pour in the colder milk
  
3. 2 objects, one made of metal and one of wood, are in the same environment, in contact with the same things, for several days. When a person decides to measure the temperature of each object...
  - A. they will be the same
  - B. The metal is colder (if in a cold environment), and hotter (if in a hot environment)
  - C. they would feel like different temperatures, therefore they are different temperatures
  - D. none of the above
  
4. As long as the objects below are the same temperature, which will *feel* the coldest to you when sleeping without a fire?
  - A. the calm air (not the wind)
  - B. the ground
  - C. your mood
  - D. none of the above
  
5. Necessary conditions for conduction to occur include
  - A. direct contact and 2 objects of the same temperature
  - B. thermal bridging and 2 objects of different temperature
  - C. thermal bridging and/or direct contact and 2 objects of different temperature
  - D. direct contact and 2 objects of different temperature
  
6. What is "temperature"?
  - A. heat
  - B. thermal energy
  - C. a measure of average kinetic energy of atoms present
  - D. a measure of the total energy energy of atoms present

7. During which time period will conduction happen the fastest between the outer layer of your clothes and the outside air (as long as the air remains the same temperature)?
- A. the 1st 10 minutes of the experience
  - B. when the clock strikes midnight
  - C. the last 10 minutes of the experience
  - D. conduction will remain constant the entire time
8. Infrared light is...
- A. thermal energy
  - B. visible
  - C. reflected in a similar way to visible light
  - D. none of the above
9. What makes infrared light so uniquely qualified to make greenhouse gas molecules vibrate?
- A. The amount of energy that infrared light has matches that of the endoplasmic reticulum's anthropomorphic disensabishmentarism of plagioclase feldspar
  - B. its not, UV light makes most greenhouse gases heat up the most
  - C. the amount of energy infrared carries with it matches well the various energy differences the atom's orbital shells
  - D. well, infrared light is thermal energy, so it makes sense that it can warm up stuff
10. An effective way to limit the amount of infrared light reaching a given object...
- A. would be to place it in direct sunlight
  - B. would be to place it in the shade
  - C. would be to place it in a clear zip lock bag
  - D. none of the above
11. Toward which object will you want to face shiny materials while sleeping outside in the cold?
- A. you
  - B. your tent
  - C. the ground
  - D. the moon
12. Where does the heat that keeps you alive come from when you sleep outside in the cold?
- A. the core of the earth
  - B. your house
  - C. the food you ate
  - D. none of the above

13. Pictured below is a “radiometer”. When bright light shined on it, it rotated as if the dark side of the little diamonds was being pushed harder than the light side. Why?

- A. because of beta-receptor spontaneous depolarization
- B. the dark side reflected the light harder, thus getting warmer
- C. the light side re-radiated the light at light speed, thus getting warmer
- D. the dark side absorbed and re-radiated the light, thus getting warmer



14. What makes a greenhouse gas different from non-greenhouse gasses?

- A. they are pollution
- B. they are anthropogenic
- C. they are lopsided and/or electrically polarized
- D. none of the above

15. Why does air that is moving due a lit candle move away from the top of the flame?

- A. air above the flame is the most dense
- B. the heat pushes it away
- C. it doesn't actually, so the premise of this question is flawed
- D. its warmest, therefore least dense there, so it is pushed up by surrounding air

16. Why does air on the sides of a flame move toward it?

- A. the air pressure is highest near the flame
- B. it doesn't actually, so the premise of this question is flawed
- C. the pressure is lowest at the flame so the air rushes in to fill in the gap
- D. none of the above

17. Convection causes:

- A. warmer, less dense air to rise
- B. cooler, more dense air to sink
- C. most wind
- D. all of the above

18. Symptoms of hypothermia...
- A. mimic the effects of many dangerous drugs
  - B. only happen when the body's tissue freeze (at 32 degrees fahrenheit)
  - C. always include fits of absolute rage
  - D. are nothing to worry about
19. Alcohol is not a good idea to ingest if you want to stay warm because...
- A. it is a vasodilator, so blood will rush to the capillaries in the skin and you'll radiate thermal energy away from you more quickly
  - B. it is illegal for minors to ingest
  - C. its effects mimic some hypothermia signs
  - D. all of the above
20. Caffeine is not a good idea to ingest if you want to stay warm because...
- A. it is a vasodilator, so blood will rush to the capillaries in the skin and you'll radiate thermal energy away from you more quickly
  - B. it increases the risk of frostbite by constricting blood vessels in a manner that the brain wouldn't normally control
  - C. it actually is a good idea to ingest in in these circumstances, so nevermind
  - D. none of the above
21. What should you do at the 1st sign of trouble during the simulated survival scenario?
- A. Stay outside until sunrise no matter what!
  - B. Cheat and bring hot food with you!
  - C. Use real survival techniques like using fresh urine in a bottle placed on your skin!
  - D. Go inside, your grade does not depend on you staying outside at all!