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*Student**Class***Section 1 – Human Needs for Heat Technologies****1.1 History of Heat Technologies**

1. The need to stay warm has always been a part of life for humans. Until about 1600, people thought that heat was a combination of ...
  - A. Light and air
  - B. Fire and air**
  - C. Light and fire
  - D. Color and light
  
2. In early times, people observed that heat – because it seemed to flow from a hot place to a cold place – must be an invisible fluid that they called ...
  - A. temperature
  - B. energy**
  - C. thermal
  - D. caloric
  
3. The Franklin stove, invented by Benjamin Franklin, is a heating technology that has a dual purpose. Besides heating a room, it was also used as a ...
  - A. smokehouse
  - B. foot warmer
  - C. cooking stove**
  - D. bar-b-cue grill
  
4. The official unit of heat energy is the ...
  - A. watt
  - B. joule**
  - C. kilowatt
  - D. gigajoule
  
5. ‘Needs’ are the basic required conditions for the survival of life. ‘Wants’ are not vital to survival. Which of the following statements represents a need?
  - A. I need that designer jacket, so I can stay warm this winter.
  - B. I need a glass of water to quench my thirst.**
  - C. I need to camp in a trailer, so I don’t freeze when I am camping.
  - D. I need a clear cover duotang for my science lab notebook.
  
6. The chimney first appeared in Europe in the ...
  - A. 1200s**
  - B. 1400s
  - C. 1700s
  - D. 1800s
  
7. The reappearance of central heating occurred in the late 1700s, as coal became the main fuel source. Central heating was originally developed around 100 B.C. by the ...
  - A. Americans
  - B. Canadians
  - C. Romans**
  - D. Greeks

**1.2 Heat Technologies in Everyday Life**

1. A technology that has replaced boiling water over an open campfire gives us a warning when the water has boiled. This technology is ...
  - A. a micro-sensing digital boiler
  - B. a solar powered water heater
  - C. an electric kettle
  - D. a hot water heater
  
2. This type of Thermal Energy source can be used to cook food, but they are hard to control, dangerous and messy.
  - A. open fire
  - B. Franklin stove
  - C. pioneer stove
  - D. modern gas stove
  
3. Choose the technology that you would need so that you could heat a large room in your house, and maintain a constant comfortable temperature in that room.
  - A. a gas furnace
  - B. a wood-burning fireplace
  - C. an electric fireplace
  - D. a digital thermostat
  
4. Overheating can be a problem for hand-held hair dryers. A device, that is used to shut off the thermal energy when it gets too hot, is needed. This device is ...
  - A. automatically controlled
  - B. the heating element
  - C. the fan
  - D. a button on the hair dryer
  
5. What unit of energy does the heating company use to determine the amount of money they charge to help fuel the heating technology in your house ...
  - A. kilowatt
  - B. gigajoule
  - C. watt
  - D. joule