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Class _____

Section 4 – Technologies that Use Heat – Benefits and Cost to Society and the Environment

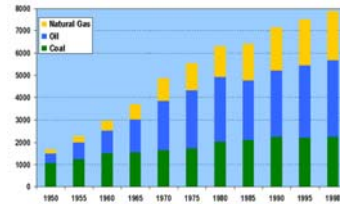
4.1 Looking at Alternative Sources of Heat

1. Natural sources of energy can be renewable and non-renewable. Non-renewable energy sources cannot be replaced. A non-renewable energy source would be ...

- A. coal
- B. wind
- C. solar
- D. geysers

2. The use of fossil fuels around the world is steadily increasing. The fuel that has increased the most since 1950 is ...

- A. Oil
- B. Coal
- C. Crude
- D. Natural gas



3. The costs in dollars of using fossil fuels are what are considered to be ...

- A. economy use
- B. economic costs
- C. environmental costs
- D. societal costs

4. The environmental costs of air pollution can be reduced by improving ...

- A. production
- B. distribution
- C. technology
- D. generation

5. The costs of treating lakes, that have been damaged by acid rain, have to be paid for by every citizen. This makes this type of cost ...

- A. personal
- B. economic
- C. environmental
- D. societal

6. An alternative for thermal energy that is inexpensive, practical and renewable, and does not require increased technological advances is wind power. This technology utilizes a windmill to generate electrical power that can then be converted into thermal energy. Unfortunately this alternative is not practical where there is no ...

- A. wind
- B. sunshine
- C. shelterbelt
- D. sloping terrain

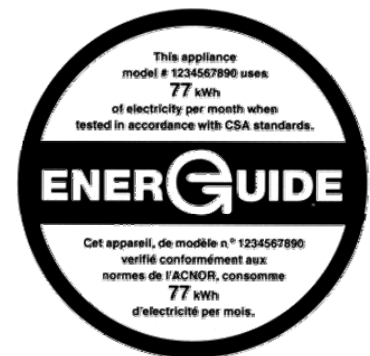
7. Canadian scientists developed the Canada Deuterium-Uranium reactor to provide nuclear energy in parts of Canada and to sell to other countries. The major problem with this reactor is the ...

- A. long time to produce thermal energy
- B. cost and distribution of the power
- C. long term storage of waste materials
- D. safety record it has worldwide

4.2 Energy Consumption

- The 'hybrid' car was introduced to the general public in 2000. The 'hybrid' vehicle combined two types of systems to power the vehicle. One was gasoline and the other was ...
 - diesel
 - electric**
 - solar
 - natural gas
- The three main energy users are ...
 - home, transportation, industry**
 - recreation, transportation, streetlights
 - shopping, transportation, industry
 - home, transportation, recreation
- An **ENERGUIDE** label is found on most household electrical appliances and tells the consumer how much electricity is ...

- needed to run the appliance
- used running the appliance**
- wasted by the appliance
- generated while running the appliance



- Thermal energy has the power to hurt us and destroy our possessions. All of the following practices are dangerous and harmful EXCEPT ...
 - recycling programs**
 - dumping of toxic chemicals
 - forest fires
 - volcanic eruptions
- A dangerous by-product, from the use of fossil fuels (coal, natural gas and oil) enters the atmosphere when industries burn this fuel. A by-product can react with water in the air to form acid rain. The by-product is ...
 - carbon dioxide**
 - sulfur dioxide
 - carbon monoxide
 - nitrogen monoxide
- An important tool that companies use to determine where energy is being wasted and ways to fix the problem is an ...
 - overhaul
 - economic forecast
 - energy audit**
 - efficiency rating
- Co-generation is a process in which two forms of energy are produced at the same time from one energy source. The two forms of energy produced are usually ...
 - heat and light
 - kinetic and solar
 - electricity and heat**
 - mechanical and light