

## MULTIPLE CHOICE QUESTION BANK

### CHAPTER 1: INTRODUCTION

1. Which of the following statements is **true** (only one):
- a. The growth rate of energy consumption has kept pace with GNP growth.
  - b. Oil use has expanded more than any other fuel since 1940.
  - c. We reached the point last year where we imported no oil.
  - d. Electricity use has actually fallen since 1975.

**Answer: b**

2. Which of the following is a non-renewable resource?
- a. uranium      b. water      c. wind      d. biomass      e. radiant solar

**Answer: a**

3. Today, the U.S. imports about what percentage of the oil it uses?
- a. 10%      b. 25%      c. 40%      d. 60%      e. 80%

**Answer: d**

4. One of the primary motivating forces behind our per capita reduction in energy use in the 1980's was \_\_\_\_\_.
- a. a smaller population growth
  - b. higher oil prices
  - c. increased nuclear power costs
  - d. increased domestic oil discoveries

**Answer: b**

5. The most significant aspect of world consumption of energy over the last 40 years has been the \_\_\_\_\_.
- a. growth of nuclear power
  - b. expanding use of oil
  - c. increased use of coal
  - d. emphasis on energy conservation
  - e. increase in our fossil fuel reserves

**Answer: b**

6. If you started with \$100 in the bank and you had \$200 after letting it sit there for 5 years, what would be the annual interest rate you received?
- a. 2%      b. 5%      c. 10%      d. 14%      e. 22%

**Answer: d**

7. Continued use of the fuels most relied upon in developing countries will eventually lead to \_\_\_\_\_.  
a. depletion of soil nutrients  
b. severe thermal pollution of water  
c. increased oil prices  
d. depletion of coal reserves in those countries

**Answer: a**

8. If the growth rate of the number of solar collectors is 7% per year, then 1000 units in use in 2010 will grow to \_\_\_\_\_ units by the year 2040.  
a. 1200                      b. 2000                      c. 4000                      d. 8000                      e. 20,000

**Answer: d**

9. The Hubbert curve for an energy resource displays what quantity on the y-axis?  
a. time                      b. total production                      c. yearly production                      d. amount of fuel left

**Answer: c**

## CHAPTERS 2 AND 3: ENERGY MECHANICS

10. A net force of 30 newtons is applied to a block of mass 10 kg. The force that must be applied to a block of mass 5 kg to give it equal acceleration is \_\_\_\_\_.  
a. 5                      b. 10                      c. 15                      d. 20                      e. 30 N

**Answer: c**

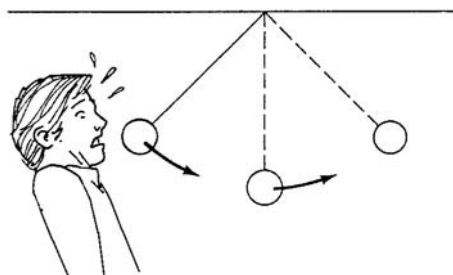
11. If a constant non—zero force is applied to an object, its velocity will certainly \_\_\_\_\_.  
a. change                      b. stop                      c. be zero                      d. be constant                      e. equal acceleration

**Answer: a**

12. Which of the following is a unit of energy:  
a. watt                      b. ft—lb/sec                      c. newton/sec.                      d. horsepower                      e. joule

**Answer: e**

13. Our nosecracker moved back and forth as shown. The kinetic energy will be greatest at point:



- a. A                      b. B                      c. C

**Answer: b**