

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

**Chapter 02: Current Status of the Plastics Industry**

1. A steep drop in plastics production in 2008-2009 can be attributed to the \_\_\_\_.
- a. World Trade Center bombing
  - b. financial crisis that started in 2008
  - c. wars in Afghanistan and Iraq
  - d. demand for crude oil

ANSWER: b

2. The projections for plastics production by 2020 have been based on the growth of plastics in \_\_\_\_.
- a. aeronautics
  - b. space travel
  - c. medical technology
  - d. the automotive industry

ANSWER: d

3. One of the five states that enacted bottle deposit laws in the 1970s is \_\_\_\_.
- a. Oregon
  - b. Pennsylvania
  - c. New York
  - d. Texas

ANSWER: a

4. Recycling is a term generally reserved for \_\_\_\_.
- a. reuse of waste materials generated during manufacturing
  - b. reprocessing of waste materials generated during manufacturing
  - c. postconsumer waste materials
  - d. incineration of waste materials

ANSWER: c

5. Why has there been so little success in bottle deposit laws?
- a. consumers have been slow to recycle
  - b. major soft drink manufacturers oppose it
  - c. the federal government opposes it
  - d. there is great diversity in state laws concerning recycling

ANSWER: b

6. Historically, a problem with PET bottle recycling was related to the fact that \_\_\_\_.
- a. the FDA did not allow recycled materials to be in contact with food
  - b. PET bottles has toxic materials
  - c. the FDA imposed steep inspection costs on recycled PET
  - d. PET bottles were an alloy of unknown substances

ANSWER: a

7. Because residents often make mistakes in sorting plastic containers, many large communities accept \_\_\_\_.
- a. PVC only

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- b. only HDPE plastics
- c. only nonplastics
- d. commingled materials

**ANSWER:** d

8. In recycling collection trucks, the greatest volume collected is \_\_\_\_
- a. plastics
  - b. mixed paper
  - c. cardboard
  - d. aluminum cans

**ANSWER:** a

9. In a materials recovery facility (MRF), the conveyor belts that move recycled materials past employees who sort them are called \_\_\_\_.
- a. sorting lines
  - b. magnetic sorting features
  - c. picking lines
  - d. baling lines

**ANSWER:** c

10. Natural HDPE bottles are mostly \_\_\_\_.
- a. clear bottles
  - b. opaque bottles suitable for bleach
  - c. juice containers
  - d. milk jugs

**ANSWER:** d

11. What is the process in which a blower system separates the fine pieces out that are too light to fall through a controlled updraft?
- a. baling
  - b. elutriation
  - c. decanting
  - d. flotation

**ANSWER:** b

12. Automatic sorting systems detect the chemical makeup of material, such as the \_\_\_\_ systems that detect opacity.
- a. single wavelength infrared (IR)
  - b. multiple wavelength IR
  - c. optical
  - d. X-ray

**ANSWER:** a

13. The type of depolymerization that produces useful monomers is called \_\_\_\_.
- a. pyrolysis

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- b. decomposition
- c. hydrolysis
- d. liquefaction

**ANSWER:** c

14. What is an advantage of incineration?

- a. it is environmentally friendly
- b. it is very economical
- c. it provides an 10% to 20% reduction in the volume of the solid waste
- d. it does not require sorting of the solid wastes

**ANSWER:** d

15. Polymer materials that derive from renewable resources, such as corn rather than petroleum-based plastics are known as \_\_\_\_\_.

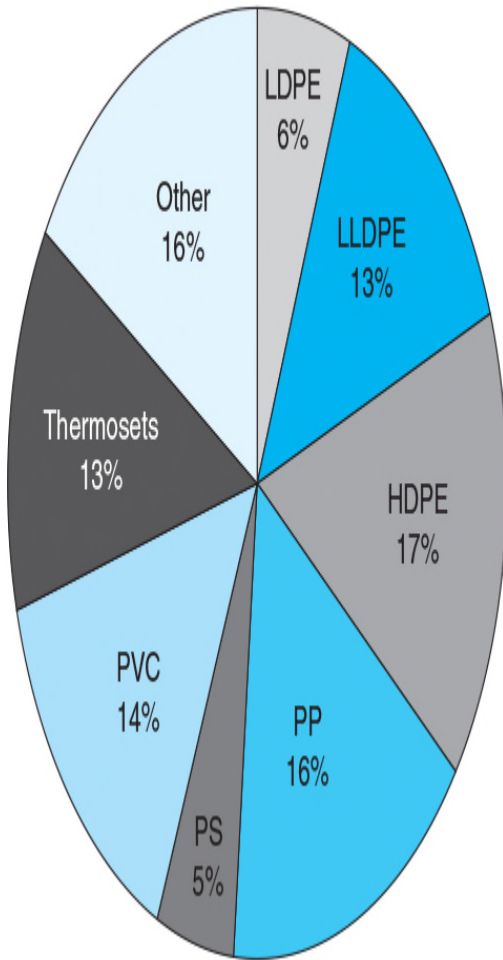
- a. degradable plastics
- b. bioplastics
- c. biodegradable plastics
- d. hydrolyzed plastics

**ANSWER:** b

16. This pie chart shows that \_\_\_\_\_ represents the highest percentage of production.

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**Distribution of US Production**



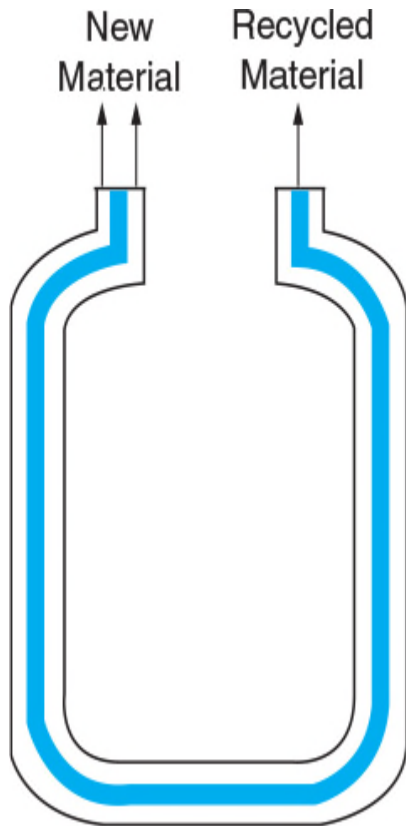
- a. low-density polyethylene
- b. polyvinyl chloride
- c. high-density polyethylene
- d. polystyrene

**ANSWER: c**

17. This figure shows an early idea to remedy the problem of the FDA not allowing the use of \_\_\_\_\_ in food contact applications.

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- a. PVS
- b. HDPE
- c. plastics
- d. recycled materials

ANSWER: d