

Envirothon 2022 Current Issue Test

Team #: _____

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Waste management

1. According to the EPA waste hierarchy for nontoxic waste, rank the following methods of waste disposal from most (1) to least (6) preferred.- (6 points)

Most preferred is 1

Least preferred is 6

_____ Reuse

_____ Treatment and disposal-landfill

_____ Source reduction

_____ Compost

_____ Energy recovery

_____ Recycling

2. Why is source reduction beneficial to the environment? (1 point)

3. What is the difference between recycling and waste prevention? (2 points)

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4. In the article “How to Regulate Our Waste-full World” by Jen Allen Ph.D., she explains lessons learned from the past 50 years of disposing waste. What does the idea “the Global North dumping its dangerous waste on the Global South” mean? (1 point)

5. What is the fastest growing waste stream in the world? (1 point)

6. Name the three main benefits of the Plastic Pollution and Recycling Modernization Act recently passed in Oregon. (3 Points)

1.

2.

3.

____/5

Landfills, Food Waste and Composting

7. What is leachate? (1 point)

8. What happens to leachate after it is created? (1 point)

9. Name one gas that is produced when food waste decomposes in a landfill. (1 point)

10. What percent of food produced or imported for consumption in the US is never eaten? (1 point)
 - A. 24% or less
 - B. 25%-40%
 - C. 41%- 50%
 - D. 51% or more

11. From the choices below, choose the list where every one of items be composted. (1 point)
 - A. Fireplace ashes, straw, vegetables and yard trimmings treated with chemical pesticides
 - B. Wood chips, disease ridden plants, newspapers and tea bags
 - C. Vegetables, cardboard, grass clippings and cat box litter
 - D. Coffee grounds, leaves, egg shells and fruit

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12. List 3 benefits of composting. (3 points)

1.

2.

3.

Brownfields and Hazardous Waste

13. What is a brownfield? (2 points)

14. What is the estimate of the number of brownfields in the US? (1 point)

15. What are the three main contaminants most commonly reported from brownfields cleaned up using U.S. EPA grant funds (3 points)

1.

2.

3.

____/9

16. What is the name of the federal agency that provides funding to revitalize brownfields?

(1 point)

17. What are two environmental benefits of cleaning up a brownfield? (2 points)

1.

2.

18. What are 2 economic benefits of cleaning up a brownfield? (2 point)

1.

2.

19. What is a social benefit of cleaning up a brownfield? (1 point)

20. What are 3 examples of household hazardous waste materials? (3 points)

1.

2.

3.

____/9

21. What are 2 problems associated with the improper disposal of hazardous wastes? (2 points)

1.

2.

22. In the article, "Types of Pollution Found in Brownfields" by Kristin Campbell, she cites a study published in May 2010 that identifies 3 effects of lead accumulation on the bird, the pied flycatcher. What were the 3 effects? (3 points)

1.

2.

3.

23. Why should you bag up dog waste and put it in the garbage? Circle the correct answer. (1 point)

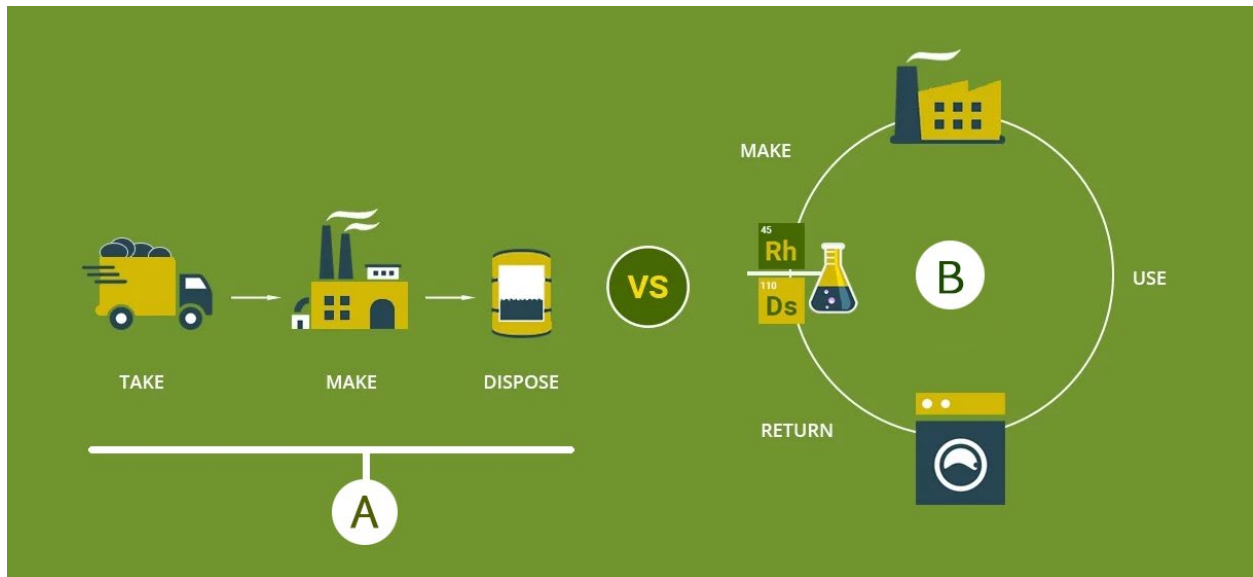
- A) It can carry bacteria, viruses and parasites that can threaten the health of humans and wildlife.
- B) It contains nutrients that promote weed and algae growth.
- C) It is a toxic pollutant
- D) All of the above

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Waste to Energy Systems

24. Give an example of a waste to energy system. (1 point)

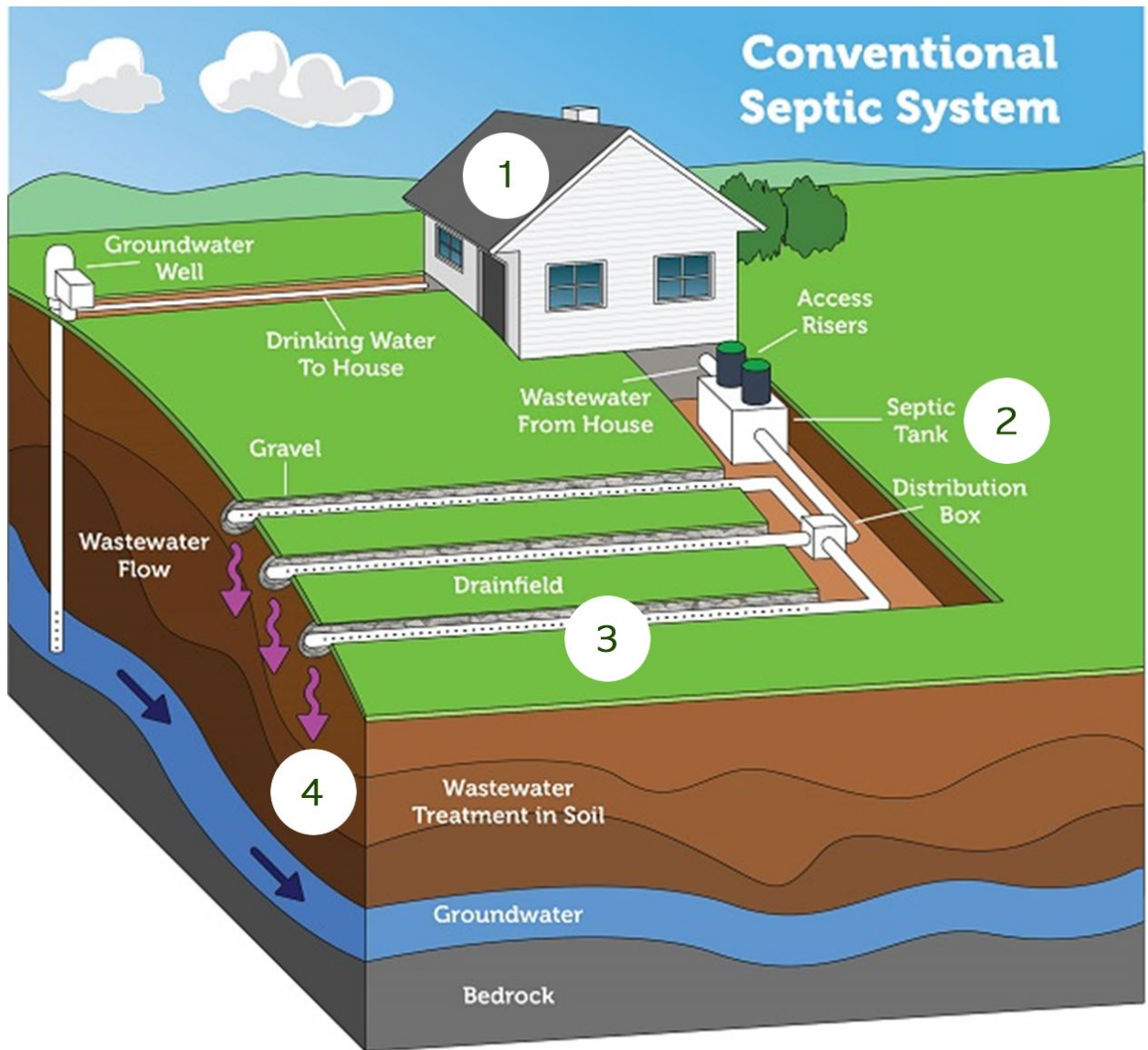
25. Which of these diagrams best describes a circular economy? (1 point)



26. Why is a circular economy important when reducing waste? (1 point)

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27. Explain the 4 steps identified below of a conventional septic system as wastewater travels from the house, septic tank, drain fields and the soil. (4 points)



Please note: Septic systems vary. Diagram is not to scale.

- 1.
- 2.
- 3.
- 4.

____/4