

30 Multiple Choice Questions

1. In the evapotranspiration cycle, the process that most assures purity is
 - A. evaporation
 - B. percolation through the soil
 - C. rainfall
 - D. all of the above

2. A process that endangers the purity of water is
 - A. agriculture
 - B. industry
 - C. forestry
 - D. all of the above

3. In the western United States water is an issue because
 - A. The West's per capita use is the highest in the U.S.
 - B. reservoirs are being decommissioned
 - C. most of the land area is arid
 - D. all of the above

4. In a typical U.S. household the highest percentage of water is used in
 - A. showers
 - B. toilets
 - C. clothes washing machines
 - D. all of the above

5. Potable water can be generated on site by
 - A. collecting rainwater
 - B. recycling gray water
 - C. treating black water in a living machine
 - D. all of the above

6. The Water Pollution Control Lab in Portland, OR, treats neighborhood storm water
 - A. with analytical art installations
 - B. with a sculptural retention pond
 - C. in bioswales with special weirs
 - D. all of the above



"This is it, Jenkins—indisputable proof that the Ice Age caught these people completely off guard."

7. Parking lot stormwater runoff polluted by automobiles can be treated by
- A. bioswales
 - B. constructed wetlands
 - C. pervious paving that induces percolation
 - D. all of the above
8. Green roofs are a viable solution to stormwater management in
- A. Seattle and Portland
 - B. Chicago
 - C. both of the above
 - D. none of the above
9. Water quality in Paradise Creek is negatively affected by
- A. forestry
 - B. agriculture
 - C. urban areas
 - D. all of the above
10. The Sweet Avenue restoration project on Paradise Creek features
- A. flood control
 - B. brown site restoration
 - C. parking lot stormwater runoff control/filtration
 - D. all of the above
11. Municipal waste water can be treated by
- A. conventional waster water treatment systems
 - B. constructed wetlands
 - C. living machines
 - D. all of the above
12. Among the projects that use living machines to treat waste water is
- A. Paws Inc., Jim Davis' cartoon studio
 - B. the Adam Lewis Center at Oberlin College
 - C. the National Botanical Garden of Wales
 - D. all of the above
13. For acceptable performance, the low-flush toilet that you specify should be able to effectively flush a load of
- A. 100 grams
 - B. 250 grams
 - C. 500 grams
 - D. 750 grams



14. A toilet that requires no sewer connection is
- a waterless urinal
 - a composting toilet
 - an ultra low-flush toilet
 - all of the above
15. Design considerations for bathrooms include
- aesthetics
 - ergometrics
 - alternative uses
 - all of the above
16. The problem with solid waste landfills is that
- valuable and recyclable materials are being deposited in them
 - they contain toxic wastes with potential to pollute ground water
 - permits for new sites for landfill are becoming difficult to obtain
 - all of the above
17. Designers can promote recycling by
- incorporating recycling centers in building designs
 - employing building site waste recycling managers
 - specifying recycled materials for their designs
 - all of the above

18. If a group of informed designers rated your new building design at 25 points on the Wells/SBSE Checklist for Regenerative Design and Construction, you should consider it
- A. degenerative
 - B. sustainable
 - C. regenerative
 - D. LEED Gold certifiable
19. An advantage of the SBSE checklist over the LEED checklist is that it
- A. is very objective
 - B. penalizes unsustainable design solutions
 - C. gives positive ratings to sustainable buildings
 - D. all of the above
20. The green architecture movement has matured more rapidly in Europe than in the US because
- A. the European Union building regulations encourage green building
 - B. the green party is influential in Europe
 - C. most European countries are Kyoto Accord signees
 - D. all of the above
21. The tallest building in Europe (CommerzBank) is considered green because
- A. it uses spiralling five-story atria as a natural ventilating set of lungs
 - B. it's solar heated
 - C. its vertical garden treats waste water
 - D. all of the above
22. The British Research Establishment (BRE) building sets a good example of green architecture through use of
- A. photovoltaics
 - B. solar-aided natural ventilation towers
 - C. wave-form ceilings that integrate mass, daylighting, and natural ventilation
 - D. all of the above
23. If you need assistance in designing a daylighted office building in Boise, you can get free consulting from
- A. the BetterBricks Integrated Design Lab in Boise
 - B. the Pacific Energy Center in San Francisco
 - C. Heschong-Mahone in Sacramento, CA
 - D. none of the above
24. Funding for the design assistance labs throughout the West are mainly provided by
- A. the U.S. Department of Energy
 - B. state governments
 - C. common good funds collected by the utilities
 - D. private corporations

25. A site energy system that uses both photovoltaics and low-head hydro is effective because
- A. excess energy can be sold back to the utility
 - B. peak PV and hydro generation occur at complementary times
 - C. neither system can provide enough energy for a residence
 - D. none of the above
26. In designing an energy self-sufficient residence in Idaho, you can successfully incorporate
- A. photovoltaic arrays
 - B. vernacular responses to climate
 - C. biomass electrical generation
 - D. all of the above
27. Energy spaghetti charts for the last forty-five years show
- A. U.S. energy use is greater than other countries'
 - B. energy waste exceeds 50%
 - C. the U.S. has potential for energy independence
 - D. all of the above
28. Combustion of bio- and fossil fuels causes
- A. global warming
 - B. air pollution
 - C. acid rain
 - D. all of the above
29. The most cost-effective way of reducing the effects of combustion fuels is
- A. conservation
 - B. wind-powered generators
 - C. solar thermal generators
 - D. photovoltaics
30. Fuel cells can be used to generate electric energy for
- A. a utility company
 - B. a single building
 - C. an automobile
 - D. all of the above

