

Arch 464
ECS
Midterm II
Spring 2006

30 Multiple Choice Questions

1. The evapotranspiration process that always increases water purity is
 - A. rainfall
 - B. percolation through the soil
 - C. parking lot run-off
 - D. none of the above
2. Clean water is essential for
 - A. agriculture
 - B. recreation
 - C. human consumption
 - D. all of the above
3. In Idaho a major water issue is
 - A. reservoirs are being decommissioned
 - B. high levels of groundwater extraction
 - C. lack of low-flow toilet legislation
 - 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. A modern example of a project designed to conserve great quantities of water is
 - A. the Portland Water Pollution Control Lab
 - B. the Eden Project
 - C. Corbu's Notre Dame du Haut at Ronchamps
 - D. all of the above
6. For ground water purity, the most advantageous position in a geo-regional watershed is
 - A. near the top of the drainage
 - B. mid-drainage
 - C. near the bottom of the drainage
 - D. all of the above are equally polluted



7. Cisterns for storm water storage are found in
- A. Greek amphitheaters
 - B. Michael Reynolds' earthships
 - C. LEED certified buildings
 - D. all of the above
8. For stormwater run-off retention and treatment, the parking lot design should include
- A. wetlands
 - B. bio-swales
 - C. riparian zones
 - D. all of the above
9. Among the advantages of green roofs, those that affect water quality are
- A. provision of wildlife habitat
 - B. mitigating the urban heat island effect
 - C. retention of stormwater on site
 - D. none of the above
10. The section of our local Paradise Creek that doesn't contribute to its pollution is
- A. the forested uplands
 - B. the agricultural lands
 - C. the urban areas
 - D. none of the above
11. The Sweet Avenue restoration project on Paradise Creek has
- A. eliminated pollution
 - B. reduced the probability of flooding downstream
 - C. discouraged wildlife habitation
 - D. all of the above
12. Living machines can be used for
- A. off-site treatment of black water
 - B. on-site treatment of black water
 - C. on-site treatment of gray water
 - D. all of the above
13. A septic tank and drain field is an appropriate black water treatment system for all of the below except
- A. an urban site
 - B. a low-density suburban site
 - C. a rural site near a river
 - D. all of the above

14. For new construction, you'll save water unless you specify
- a low-flush toilet
 - a composting toilet
 - an ultra low-flush toilet
 - all of the above will save water
15. Design considerations for composting toilets include
- ventilation
 - vertical alignment of commodes and composters
 - a warmish environment
 - all of the above
16. In the US solid waste problems include
- inclusion of toxic wastes
 - difficulty in permitting new landfills
 - production of methane gas
 - all of the above
17. A reasonable goal for a municipal recycling program is to reduce land-filling by
- 10%
 - 25%
 - 50%
 - 90%
18. Estimates place the built environment's share of energy use at about
- 10 to 20%
 - 25 to 35%
 - 40 TO 50%
 - 65 TO 75%
19. An advantage of the SBSE checklist over the LEED checklist is that it
- is very objective
 - penalizes unsustainable design solutions
 - gives positive ratings to sustainable buildings
 - all of the above
20. Green building in Europe features elements that aren't common in the US, including
- green roofs
 - natural lighting
 - natural ventilation towers
 - all of the above



21. The Inland Revenue complex in Nottingham, UK, features strategies for
- A. daylighting
 - B. shading
 - C. solar-assisted stack ventilation
 - D. all of the above
22. You can get free or low-cost consulting and training in green building issues from
- A. the US Green Building Council
 - B. Betterbricks-sponsored labs in Seattle, Boise, Bozeman, and Spokane
 - C. LEED-accredited professionals
 - D. all of the above
23. The best independent source of research findings on sustainable design issues is
- A. the official journal of the AIA, *Architectural Record*
 - B. the Pacific Energy Center in San Francisco
 - C. BuildingGreen.com and the *Environmental Building News*
 - D. all of the above
24. The best strategy for providing site-generated energy for a residential project is
- A. photovoltaics
 - B. wind generators
 - C. micro-hydro
 - D. a complementary combination of the above strategies
25. Eco-house projects occur around the globe and
- A. are identical
 - B. primarily use PV-generated electricity
 - C. are designed to take advantage of unique site conditions
 - D. none of the above
26. In the US today we waste at least
- A. 100 quads of energy
 - B. 300 terrawatts
 - C. 50 quads
 - D. 70% of all energy produced



27. The most earth-friendly form of combustion fuel is
- A. bio-mass
 - B. coal
 - C. natural gas
 - D. nuclear fission
28. Combustion of bio-fuels and fossil fuels contributes to
- A. global warming
 - B. air pollution
 - C. acid rain
 - D. all of the above
29. Conservation programs are supported by utilities because
- A. they increase revenues
 - B. they help avoid capital expenditures on new generation plants
 - C. the utilities are altruistic
 - D. all of the above
30. Fuel cells are currently being used in
- A. General Motors autos
 - B. Icelandic busses
 - C. LEED platinum buildings
 - D. all of the above