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



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

8. For stormwater run-off retention and treatment, the parking lot design should include

7. Cisterns for storm water storage are found in

B. Michael Reynolds' earthships C. LEED certified buildings

A. Greek amphitheaters

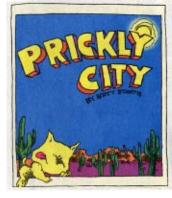
D. all of the above

A. wetlands B. bio-swales

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