Arch 464
ECS
Midterm II
Spring 2012

30 Multiple Choice Questions

1. The evapotranspiration cycle is also known as
    A. the water table
    B. the quality cycle
    C. rain and respiration cycle
    D. all of the above

2. Which which activity poses the risk of cross-media pollution?
    A. landfilling
    B. industry
    C. agriculture
    D. all of the above

3. In order to conserve water, the arid Western US pioneered the use of
    A. waterless urinals
    B. dual-flush toilets
    C. low-flush toilets
    D. all of the above

4. Untreated stormwater can be used for
    A. potable uses
    B. watering lawns and ornamentals
    C. composting toilets
    D. all of the above

5. The notable water feature common to ancient Greek amphitheaters is
    A. fountains
    B. cisterns
    C. community toilets
    D. all of the above

6. A feature common to living machines and constructed wetlands is
    A. biological treatment of waste water
    B. a greenhouse to protect plants from winter weather
    C. the use of aquatic animals
    D. all of the above

7. The Portland Water Pollution Control Lab is notable in its stromwater management, using
    A. bioswales for treating parking lot run-off
    B. a retention pond for neighborhood storm water control and treatment
    C. obvious scuppers for directing roof run-off to bioswales
    D. all of the above

8. An extensive green roof will
    A. eliminate storm water run-off
    B. reduce flood potential
    C. worsen the heat island effect
    D. all of the above

9. The reason that biological treatment of black water is possible is
    A. black water is toxin-free
    B. black water is nutrient-rich
    C. black water requires filtration of grit
    D. none of the above

10. A living machine, that has been replaced by a non-biological rechnology, was installed to treat waste water at
    A. BedZED in Beddington, UK
    B. Paws Inc. in Muncie, IN
    C. IslandWood School on Bainbridge Island, WA
    D. all of the above

11. You can reduce, but not eliminate black water generated on site by using
    A. an incinerating toilet
    B. a waterless urinal
    C. a composting toilet
    D. all of the above

12. Planning for composting toilets must consider
    A. room for collection chambers
    B. routing for ventilation ducts
    C. means of adding other compostable materials
    D. all of the above

13. Pop-up urinals in London offer
    A. maximum privacy while offering a panoramic view
    B. convenience for late-night revelers
    C. access for 20 pence
    D. all of the above

14. Paradise Creek's water quality is threatened by
    A. creek bed channelization
    B. legal dumping in its headwaters
    C. lack of regulation of building site stormwater management in Moscow
    D. all of the above

15. The Sweet Avenue creek restoration project
    A. uses bioswales to catch and treat parking lot run-off
    B. includes a rebuilt, wider riparian zone to reduce flooding downstream
    C. features trees and grass plantings to control erosion and provide shading
    D. all of the above

16. Typically, modern landfills
    A. harvest methane gas
    B. are sealed to prevent cross-media pollution
    C. are covered to enhance containment
    D. all of the above

17. Which common product poses a toxic waste hazard?
    A. incandescent lamps
    B. CFLs
    C. LEDs
    D. all of the above

18. To reduce solid waste, building designers can
    A. specify construction site waste management
    B. design an easy to use recycling system
    C. design the building for disassembly and demountability
    D. all of the above

19. To mitigate global warming buildings must be designed to
    A. be sustainable
    B. greatly reduce carbon emissions
    C. be self-sufficient
    D. all of the above

20. What score would a code-compliant building achieve on the SBSE revision of Malcolm Wells' wilderness-based checklist for design and construction?

A. a negative score
B. zero
C. a slightly positive score
D. a perfect score

21. Division of the SBSE revision of Malcolm Wells' wilderness-based checklist for design and construction into site issues and building issues allows quick visual assessment of

A. building code compliance
B. lack of building and site development integration
C. attention to societal issues
D. all of the above

22. Architecture 2030 strives to

A. reduce carbon emissions from new buildings to zero by 2030
B. influence US energy policy
C. educate architects in carbon reducing design strategies in conjunction with AIA
D. all of the above

23. In the Pacific Northwest you can seek assistance for high-performance, low-energy building design for free or a nominal fee at Betterbricks labs in

A. Boise
B. Portland
C. Bozeman
D. all of the above

24. The first law efficiency of the United States' total energy use is

A. more than 90%
B. about 80%
C. about 50%
D. less than 40%

25. A weakness in the simple Life Cycle Costing formula is

A. no accounting for enhanced worker productivity
B. inflexible reckoning of the lifetime of the building
C. no accounting for tax credits and fuel cost inflation
D. all of the above

26. Alternatives to assessing economic viability based on GNP consider

A. health and social cost
B. environmental costs
C. future scarcities and costs
D. all of the above

27. For academic buildings, a LEED Gold building
    A. will cost more than a LEED Silver building
    B. will cost less than a LEED Platinum building
    C. both A and B
    D. may cost more or less than other LEED-rated buildings

28. European regulations now require that public buildings
    A. comply to the Kyoto Accord
    B. post an energy performance certificate
    C. generate 10% of their own energy on site
    D. all of the above

29. Exemplars of European green architecture use
    A. external shading devices
    B. night ventilation
    C. solar-powered stack ventilation
    D. all of the above

30. The recent European project that aims at carbon neutrality is
    A. Scottish Parliament
    B. the British Museum
    C. BedZED
    D. all of the above