Leadership in Energy and Environmental Design

LEED® Homes Practice Exam

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21. LEED CS (rather than LEED NC) should be pursued when which of the following items are outside the control of the building owner? (Choose three.)

(A) envelope insulation
(B) interior finishes
(C) lighting
(D) mechanical distribution
(E) site selection

22. LEED Online provides a means for _____. (Choose two.)

(A) code officials to access project documentation
(B) product vendors to advertize
(C) project team members to analyze anticipated building energy performance
(D) project administrators to manage LEED projects
(E) project team members to manage LEED prerequisites and credits

23. Installing a green roof can help a project team achieve which of the following LEED credits? (Choose two.)

(A) Development Density and Community Connectivity
(B) Heat Island Effect
(C) Light Pollution Reduction
(D) Site Selection
(E) Stormwater Design

24. Using lightbulbs with low mercury content, long life, and high lumen output will result in which of the following?

(A) improved indoor air quality
(B) increased light pollution
(C) reduced light pollution
(D) reduced toxic waste

25. Which of the following are covered in the Sustainable Sites credit category? (Choose three.)

(A) light to night sky
(B) light trespass
(C) on-site renewable energy
(D) stormwater mitigation
(E) refrigerants

45. How many gallons of water per year must a graywater system reuse in order to earn points for WE Credit 1.2, Water Reuse: Graywater Reuse System?

(A) 2000 gallons
(B) 5000 gallons
(C) 7500 gallons
(D) 10,000 gallons

46. What organization manages the Green Label Plus program?

(A) U.S. EPA
(B) ASTM
(C) Carpet and Rug Institute
(D) Green Seal

47. For a home with a forced-air system to meet the requirements of EA Credit 5.3, Heating and Cooling Distribution: Minimal Distribution Losses, what is the maximum duct leakage allowed per minute at 25 Pa per 100 sq ft?

(A) 1.0 cu ft
(B) 2.0 cu ft
(C) 3.0 cu ft
(D) 4.0 cu ft

48. Which of the following are NOT appropriate storage mediums for harvested rainwater? (Choose three.)

(A) cistern
(B) constructed wetland
(C) pond
(D) rain garden
(E) tank

49. What does U.S. EPA's WaterSense program certify individuals to install?

(A) boilers
(B) irrigation systems
(C) graywater systems
(D) fixtures and fittings

50. Which of the following statements are true of fly ash? (Choose two.)

(A) It is a byproduct of burning coal.
(B) It is sometimes a component of concrete.
(C) It is sometimes a component of particle board.
(D) It is a type of mulch.
(E) It is not recyclable.

LEED Online does not provide advertising of any sort. Project administrators assign access responsibilities for prerequisites and credits to project team members using LEED Online. Local code officials are unable to view online LEED documentation. The Energy Star Target Finder tool will help a project team analyze anticipated building energy performance.

23. ***The answers are:*** **(A)** Heat Island Effect
(E) Stormwater Design

Green roofs help mitigate stormwater and reduce the roof's heat island effect by increasing evapotranspiration (which has a cooling effect), and increasing the roof's albedo. Light pollution reduction is achieved through strategic lighting design. Site selection credit is achieved by not locating the building, or hardscapes, on a prohibited site.

24. ***The answer is:*** **(D)** reduced toxic waste

Because mercury waste is toxic, using lightbulbs with low mercury content, long life, and high lumen output will result in reduced toxic waste. The mercury content of lights does not affect light pollution, which is the impact of artificial light on night sky visibility.

25. ***The answers are:*** **(A)** light to night sky
(B) light trespass
(D) stormwater mitigation

Site lighting and stormwater mitigation must be addressed when designing a sustainable site. On-site renewable energy can reduce the building's burden on the power grid and is addressed in the Energy and Atmosphere category. Refrigerants affect ozone depletion and are addressed in the Energy and Atmosphere category.

While important, controlling light trespass and light to night sky are not prerequisites for sustainable site design.

26. ***The answers are:*** **(B)** evaluate durability risks of project
(C) incorporate durability strategies into design

The four basic elements of a durability plan are evaluation of durability risks, incorporation of durability strategies into design, implementation of durability strategies into construction, and completion of a third-party inspection of the implemented durability features.

27. ***The answers are:*** **(A)** ensure the technical soundness of the LEED reference guides and training
(C) resolve issues to maintain consistency across different LEED rating systems

Technical Advisory Groups (TAGs) respond to Credit Interpretation Requests (CIRs) and assist in the development of LEED credits. The Technical Scientific Advisory Committee (TSAC) ensures LEED and its supporting documentation is technically sound while assisting USGBC with complex technical issues.

44. ***The answers are:*** **(A)** increased mass transit use
(B) increased pedestrian activity
(D) protection of undeveloped land

Compact land development promotes community connectivity, which increases mass-transit use and pedestrian activity. It also conserves and protects undeveloped land. Compact land development does not specifically protect endangered species or reduce the amount of water used for irrigation in the community landscape.

45. ***The answer is:*** **(B)** 5000 gallons

WE Credit 1.2, Water Reuse: Graywater Reuse System, requires a graywater system to collect at least 5000 gallons of water per year from clothes washers, showers, and a combination of other applicable faucets.

46. ***The answer is:*** **(C)** Carpet and Rug Institute

The Carpet and Rug Institute manages the Green Label and Green Label Plus programs, which tests the VOC emissions of carpets, cushions, and adhesives, and identifies products with low and very low VOC emissions.

47. ***The answer is:*** **(A)** 1.0 cu ft

EA Credit 5.3, Heating and Cooling Distribution: Minimal Distribution Losses, requires that the duct leakage rate be tested. It can be no more than 1.0 cu ft per minute at 25 Pa per 100 sq ft of conditioned floor area and must be verified by an energy rater. Other acceptable approaches for meeting the credit requirements include installing the air handler and all ductwork within the conditioned envelope and minimizing leakage, or installing the air handler and all ductwork in sight (not hidden in walls, floors, etc.) and within conditioned spaces.

48. ***The answers are:*** **(B)** constructed wetland
(C) pond
(D) rain garden

WE Credit 1.1, Water Reuse: Rainwater Harvesting System, requires that rainwater be harvested in an opaque cistern or tank out of the sun to minimize algae, bacteria growth, pests, and debris. If implemented effectively, rainwater harvesting systems can reduce runoff and erosion and replace potable water used for landscape irrigation and some indoor water use. Constructed wetlands, ponds, and rain gardens can also capture rainwater and prevent runoff and erosion, but water from them cannot be reused for the same purposes as properly harvested and stored rainwater.

49. ***The answer is:*** **(B)** irrigation systems

The U.S. EPA's WaterSense program certifies professionals to design and install irrigation systems. While the program does not certify installers of high-efficiency fixtures and fittings, it does certify the fixtures and fittings themselves.