

1. What LEED rating system focuses on the where, what, and how to build green at a community scale?
 - A. LEED BD+C: Retail
 - B. LEED BD+C: Schools
 - C. LEED BD+C: New Construction
 - D. LEED for Neighborhood Development

2. What is the LEED standard for Indoor Air Quality?
 - A. 90.1
 - B. 62.1
 - C. SMACNA
 - D. ANSI

3. How many points must a LEED Gold project earn?
 - A. 40-49
 - B. 50-59
 - C. 60-79
 - D. 80-100

4. How many points must a LEED Silver project earn?
 - A. 30-39
 - B. 40-49
 - C. 50-59
 - D. 60-69

5. What is the lowest level of LEED certification?
 - A. Silver
 - B. Gold
 - C. Certified
 - D. Platinum

6. How many levels are there of LEED certification?
 - A. One Level
 - B. Two Levels
 - C. Three Levels
 - D. Four Levels

7. Who manages the LEED certification process?
 - A. GBI
 - B. GBCI
 - C. ANSI
 - D. ASHRAE

8. Who developed the LEED Impact Categories?
 - A. U.S. Green Building Council (USGBC)
 - B. United States Department of Energy (DOE)
 - C. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)
 - D. American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)

9. What type of system is one that materials and resources are constantly brought in from the outside, used in some way, and then released outside the system in some form of waste?
- A. Closed Flow
 - B. Open Flow
 - C. Open System
 - D. Closed System
10. What is an intense workshop designed to produce specific deliverables called?
- A. Stakeholder Meeting
 - B. Charrette
 - C. Task Group
 - D. Team Meeting
11. A project is renovating an existing building and wants to use green building strategies. What is the first step the design team should do?
- A. Set Goals
 - B. Look for Opportunities for Improvement
 - C. Hire a LEED AP
 - D. Identify local suppliers of green products
12. Which of these is the result of toilets and urinals?
- A. Graywater
 - B. Blackwater
 - C. Potable Water
 - D. Something
13. Which of these fixtures use gallons per minute (gpm) to measure water consumption?
- A. Something
 - B. Indoor flush fixtures
 - C. Indoor Flow Fixtures
 - D. Something
14. Using drought-tolerant native or adapted plants along with rocks, bark mulch, and other landscape elements is called
- A. Weatherizing
 - B. Xeriscaping
 - C. Naturalizing
 - D. Hydrological
15. A project team has incorporated Rainwater Management strategies by installing an open-grid parking lot and reducing the impervious pavement surrounding the project site buildings. What other environmental impact is reduced by this design?
- A. Light Pollution
 - B. Heat Island Effect
 - C. Potable Water Use for Irrigation
 - D. Green House Gas Emissions

16. The result of using flat, dark surfaces of roadways, parking lots, and tarred rooftops that absorb and retain the sun's heat during the day and are slow to radiate it at night is known as
- A. Emissivity
 - B. Heat Island Effect
 - C. Thermal Reflectance
 - D. Radiation
17. Which of these is a major concept in the integrative process that is integral to green building and sustainability?
- A. Open Design
 - B. Systems Thinking
 - C. Co-locating
 - D. Framework
18. The 'Prius effect' is an example of a(n)
- A. Positive Feedback Loop
 - B. Negative Feedback Loop
 - C. Closed Feedback Loop
 - D. Open Feedback Loop
19. Which of these describes the integrative process approach to designing a LEED project?
- A. Creating a project checklist
 - B. Accounting for the interactions among all building and site systems
 - C. Holding an all-day Charrette
 - D. Hiring a LEED AP to manage the project design
20. Which of these is an important tool in the iterative process?
- A. Charrette
 - B. One-on-one conversations
 - C. Stakeholders
 - D. Cost associated with a green strategy
21. Which of these treaties banned the production of chlorofluorocarbon (CFC) refrigerants and is phasing out hydrochlorofluorocarbon (HCFC) refrigerants?
- A. The Kyoto Treaty
 - B. The Montreal Protocol
 - C. ASHRAE
 - D. SMACNA
22. What refrigerant can be used by a LEED project?
- A. Halon
 - B. Hydropentachlorodimethyl (HPD)
 - C. Chlorofluorocarbons (CFC)
 - D. Hydrofluorocarbons (HFC)
23. ASHRAE Standard 189.1 can be as an alternate path to compliance to what building code?
- A. ANSI
 - B. IGCC
 - C. 90.1
 - D. CA's Title 24

24. The ASHRAE Standard 52 determines what for air filters?
- A. Minimum Efficiency Reporting Value
 - B. Minimum Efficiency Recording Value
 - C. Maximum Efficiency Reporting Value
 - D. Maximum Efficiency Recording Value
25. Which of these purchases would meet the requirement for being obtained locally for LEED Material and Resources (MR) credits?
- A. Bamboo floor harvested 600 miles away and purchased 300 miles from the project site
 - B. Stone extracted and processed 80 miles away and purchased within 75 miles from the project site
 - C. Vinyl floor manufactured 1,350 miles away and purchased within two miles of the project site
 - D. Marble extracted and processed 1500 miles away and purchased within 700 miles of the project site
26. What is pre-consumer recycled material?
- A. Waste generated by households or commercial, industrial and institutional facilities
 - B. Material left over from a manufacturing process
 - C. Recovery and reemployment of materials recovered from existing building or construction sites
 - D. Material diverted from the waste stream during the manufacturing process and used for another purpose
27. A non-profit organization is planning to rent three floors of an existing 15-story building. What LEED rating system would you recommend to the project team to follow?
- A. LEED BD+C: New Construction
 - B. LEED ID+C: Commercial Interiors
 - C. LEED O+M: Existing Buildings
 - D. LEED BD+C: Retail
28. What is the intent of the Materials and Resources (MR) credit Construction and Demolition Waste Management Planning credit?
- A. To manage the removal of trees and shrubs and other land clearing debris
 - B. To divert waste from disposal in landfills
 - C. To lessen the burden on landfills through waste-to-energy conversion
 - D. To minimize soil being hauled to disposed of in landfills
29. Which of these are addressed by a construction activity pollution prevention plan?
- A. Preservation of open space
 - B. Using native and adapted vegetation
 - C. Controlling airborne dust generation
 - D. Irrigation demand required by the project site
30. Allowing building occupants to dispose of cans, paper, and other recyclables in one container is called?
- A. Specialized waste management
 - B. Universal collection
 - C. Contained
 - D. Commingled

31. A project design team was asked by the owner to replace a black asphalt parking lot with grey pervious concrete in order to achieve Rainwater Management. What other environmental impact is reduced by this design change?
- A. Heat island effect
 - B. Light Pollution
 - C. Daylight
 - D. Emissivity
32. Which of these strategies would encourage pedestrian access to a project site?
- A. Plant a garden on the project site that is accessible to all employees
 - B. Provide a shuttle from the project site to a transit station
 - C. A natural trail open to the public connecting the building to other buildings on the site
 - D. Roads with increased vehicle speeds
33. Which of these sites is the best location to promote smart growth?
- A. 1500 unit housing development that sprawls outside the city
 - B. 20 senior housing apartments, 1 senior care facility, 1 elderly care home
 - C. 300 housing units that are nearby to jobs, a school, and a shopping center
 - D. 400 housing units with two bus stops within 3 miles
34. A project team is planning to use high-efficiency plumbing fixtures and smart-technology irrigation. What LEED category would this enable the project to earn points in?
- A. Innovation
 - B. Water Efficiency
 - C. Materials and Resources
 - D. Energy and Atmosphere
35. What is the best type of water that a home owner could use for landscape irrigation?
- A. Greywater
 - B. Well water
 - C. Spring water
 - D. Potable water
36. What type of vegetation is best for landscaping a project to reduce the need for irrigation?
- A. Turf
 - B. Native plants
 - C. Noxious plants
 - D. Artificial grass
37. Which of these is a good strategy for protecting the indoor air quality during construction?
- A. Cover ducts with plastic
 - B. Limit sawing to one room
 - C. Run the permanent air handlers with the final filtration media installed
 - D. Limit smoking to outside the building
38. What is the best strategy to control indoor pollutants?
- A. Decrease the ventilation going to the building
 - B. Keep pollutants out of the building
 - C. Locate air intakes near loading docks and idling vehicles
 - D. Control / Eliminate pollutants at the source

39. To protect the indoor air quality during construction what should the project do?
- A. Do not run the ventilation system
 - B. Store moisture absorptive materials on a slab
 - C. Keep fuels, solvents, and other sources of VOCs with the absorbent materials
 - D. Use low VOC paint, adhesives, and furniture
40. In what category do projects earn exemplary performance points?
- A. Innovation
 - B. Sustainable Sites
 - C. Water Efficiency
 - D. Energy and Atmosphere
41. Which of these describes how a project could earn exemplary performance for credits that qualifies?
- A. Earn all the credits in the Water Efficiency category
 - B. Use all green building products sourced locally
 - C. Have at least three LEED Aps on the project team
 - D. Achieve the credit requirement's next percentage increment
42. Which of these is a good strategy for using alternative water for a building process?
- A. Using blackwater from the building to flush toilets
 - B. Filtering stormwater to use for a cooling tower
 - C. Capturing and treating rainwater to use for irrigation
 - D. Using water from sinks and showers to clean the site's hardscape
43. According to a University of California–Berkeley study certified green office buildings rented for what percentage more than comparable nearby buildings?
- A. 2%
 - B. 5%
 - C. 10%
 - D. 15%
44. A Lawrence Berkeley National Laboratory study found that commissioning for new construction has a median payback time of how many years?
- A. 1.7
 - B. 3.6
 - C. 4.8
 - D. 10
45. Where can projects purchase renewable energy certificates (RECs)?
- A. Almost anywhere
 - B. Only in locations that have deregulated power
 - C. In areas that have a wind farm within 100 miles of the project
 - D. Only from a utility company that has a green pricing program
46. What does renewable electricity refer to?
- A. Eco-friendly electricity
 - B. Indirect greenhouse gas emissions associated with the generation of purchased electricity
 - C. Grid electricity
 - D. Energy from residential windmills

47. Which of these would be a strategy for meeting a building's energy demand with renewable energy?
- A. Solar Water Heater Panels
 - B. Incinerating construction and demolition waste
 - C. Combustion of municipal solid waste
 - D. Installing automatic timers on the parking lot lights
48. Green power is
- A. Only produced by a PV array or wind turbine, owned by a third party
 - B. Less expensive than conventional power
 - C. Only available for new construction projects
 - D. Typically purchased at a premium price
49. What is a design strategy for designing walkable streets?
- A. Build narrow sidewalks
 - B. Increase street speeds
 - C. Decrease the building height-to-street-width ratio
 - D. Plant trees to shade sidewalks and install benches
50. Which of these concerns are of most importance to the LEED impact categories?
- A. Profit; ecology; water conservation
 - B. Credit point allocation; rating system development; Number of LEED APs
 - C. Climate change; greener economy; human health
 - D. Renewable energy; waterbodies; solar energy
51. The triple bottom line concept incorporates a long-term view for assessing potential effects and best practices for what resources?
- A. People, Planet, Profit
 - B. Public, Politics, Proceeds
 - C. Economics, Energy, Earth
 - D. Environment, Energy, Social
52. The triple bottom line addresses both social capital and natural capital. What other concept does the triple bottom line incorporate?
- A. Private capital
 - B. Local Capital
 - C. Economic capital
 - D. Business capital
53. What standard does LEED reference for green housekeeping products?
- A. ASHRAE
 - B. ANSI
 - C. Green Seal
 - D. ENERGY STAR

54. What policy should specify standards for selecting cleaning products and technologies, such as Green Seal standards, California Code of Regulations, and certification of cleaning equipment from the Carpet and Rug Institute?
- A. Pest Management Policy
 - B. Green Cleaning Policy
 - C. Recycling Policy
 - D. Indoor Air Quality (IAQ) Policy
55. Which of these is specified by the Sheet Metal Association of North America (SMACNA) to improve indoor air quality during construction?
- A. Increase ventilation rate to the building
 - B. Use low or no toxicity pest management products
 - C. Keep project clean during construction
 - D. Schedule drywall finishing and carpet installation for the same days
56. Which of these is a strategy for increasing a building occupants comfort and control?
- A. Install occupancy sensors on all over-head lighting
 - B. Provide operable windows
 - C. Schedule work hours to be flexible when it is extremely hot or cold outside
 - D. Use daylight as the only source of lighting in all private offices
57. Which of these is a strategy to reduce a building's energy demand?
- A. High efficiency flush and flow fixtures
 - B. Mats at all building entries
 - C. Passive ventilation
 - D. Native plants
58. What is the LEED standard for the baseline water consumption for the credit Indoor Water Use Reduction?
- A. EPAAct 1992, 2005
 - B. ASHRAE 90.1
 - C. ASHRAE 62.1
 - D. MERV
59. What process can be applied to existing buildings to keep a building on track for meeting or exceeding the original operational goals?
- A. ENERGY STAR
 - B. Commissioning
 - C. Retrocommissioning
 - D. Training
60. What is a benefit of installing water meters in a building?
- A. Fixture performance is improved
 - B. Building users will use less water to flush toilets
 - C. Allows teams to identify where they should focus conservation efforts
 - D. Helps to reduce energy cost and Green House Gas Emissions (GHGs)

61. Which of these features would help a project achieve Surrounding Density and Diverse Uses?
- A. Shaded streets
 - B. High-Density Street Grid
 - C. Bus Rapid Transit (BRT) stop within ½ mile of the project
 - D. An urban runoff facility is in the city
62. During the building's daily operations what can be done to reduce the amount of material destined for local landfills?
- A. Restrict the use of all paper products
 - B. Specify the use of only green cleaning products
 - C. Reuse plan
 - D. Collect recyclables from building occupants once a month
63. Which of these can help to prevent light pollution?
- A. Direct fixtures upwards
 - B. Shielded fixtures
 - C. Open-grid pavers
 - D. Native landscaping
64. What document can be used to help a project team to find locally available material suppliers?
- A. Material Safety Data Sheets (MSDS)
 - B. Invoice
 - C. A map indicating where the suppliers are located
 - D. Flyer advertising materials available
65. Which of these would help a project to reduce their energy demand?
- A. High-Efficiency HVAC
 - B. Low Flow Toilets
 - C. RECs
 - D. Task Lights
66. A project owner wants to evaluate the cost and performance of a vegetated roof. Which of these tools should the team use?
- A. Life-Cycle Analysis (LCA)
 - B. Life-Cycle Costing (LCC)
 - C. Life-Cycle Evaluation (LCE)
 - D. Life-Cycle Development (LCD)
67. The Forest Stewardship Council (FSC) exist to ensure that resources are available from responsible forestry operations. What else is important to their mission?
- A. Keep the cost of wood products down
 - B. Reduce the use of timber throughout the world
 - C. Restore biodiversity and habitat protection
 - D. Limit the number of forestry operations and suppliers

68. When the project team is evaluating the location of a new project in a developed area which of these is the most important to consider?
- A. Access to public transit
 - B. Location of fast food restaurants
 - C. Number of parking garages in the area
 - D. Required amount of open space by local code
69. Besides Indoor Air Quality (IAQ) what other areas of concern are addressed by the LEED Indoor Environmental Quality credits?
- A. Daylight/views/Controls
 - B. Sound/Light/Comfort
 - C. Light trespass/Hydrology/open space
 - D. Recycling/VOC/Diverse Surroundings
70. What is not included in the Materials and Resources credit Construction and Demolition Waste Management Planning?
- A. Concrete
 - B. Brick
 - C. Soil
 - D. Wood
71. According to the LEED Core Concepts Guide what is the largest energy use in a commercial building?
- A. Lighting
 - B. Heating
 - C. Cooling
 - D. Computers
72. Which of these is a natural refrigerant?
- A. Ammonia (NH₃)
 - B. HFC-134A
 - C. CFC-11
 - D. HCFC-123
73. What must all projects do in order to LEED certify the project?
- A. Earn all prerequisites
 - B. Hire a LEED AP with Specialty
 - C. Energy model the project
 - D. Must have at least 5000 sf of total building floor are
74. Which of these is the best site to build on?
- A. Floodplain
 - B. Habitat
 - C. Brownfield
 - D. Farmland
75. What is the best vegetation to use for landscaping?
- A. Native plants
 - B. Low growing shrubs
 - C. Trees
 - D. Turf

76. A project team has obtained a door salvaged from another location. What Materials and Resource credit could this be used for?
- A. Recycled content
 - B. Construction Waste Management
 - C. Material reuse
 - D. FSC certification
77. What is the intent of the Water Efficiency credits?
- A. Protect waterways
 - B. Encourage open space
 - C. Improve outdoor views
 - D. Conserve potable water
78. What is the correct way to refer to a project that has achieved certification?
- A. LEED Certified Building
 - B. LEED's Certified Building
 - C. LEED Registered, Gold
 - D. LEED Verified
79. Who can use the USGBC Member logo?
- A. USGBC members in good standing
 - B. LEED Accredited Professionals
 - C. LEED – certified projects
 - D. Projects registered for LEED-certification
80. What is a building called that uses no more energy from the grid than they can produce on-site?
- A. Carbon Neutral
 - B. Net-Zero
 - C. Net-Energy
 - D. Energy Wise
81. What is the area on a project site used by the building structure, defined by the perimeter of the building plan called?
- A. Buildable Land
 - B. Building Site
 - C. Building Footprint
 - D. Development Footprint
82. What could a project owner do to help reduce the use of private automobiles for commuting to work by building occupants?
- A. Give a low emitting vehicle to all employees
 - B. Provide incentives for using public transit
 - C. Schedule short work weeks
 - D. Provide discounts to a local parking garage

83. Which of these design strategies should be considered when designing a walkable neighborhood to promote connectivity?
- A. Limit culs-de-sac
 - B. Shade streets with trees
 - C. Provide benches
 - D. Create long blocks
84. Increasing the building size generally,
- A. Decreases the energy demand
 - B. Increases the energy demand
 - C. Improves the energy efficiency
 - D. Neither increases or decreases the energy demand
85. What is the main reason for LEED prerequisites?
- A. To help a project earn certification
 - B. To ensure that projects meet a minimum level of sustainability
 - C. Set minimums for code requirements
 - D. Protect USGBC from lawsuits
86. What is the best source for graywater?
- A. Dishwasher
 - B. Cooling Tower
 - C. Janitor's sink
 - D. Bathroom sink
87. What can projects do to assess occupants' satisfaction with the indoor environment?
- A. Place CO₂ sensors on every floor
 - B. Install sensors to monitor the indoor conditions
 - C. Conduct occupant surveys and obtain feedback
 - D. Wait for the building occupants to complain about the conditions
88. Studies by the Heschong Mahone Group have demonstrated that providing daylighting in classrooms can improve student scores by what percentage?
- A. 2% to 5%
 - B. 7% to 18%
 - C. 25% to 33%
 - D. 40% to 50%
89. Climate change is an example of what kind of feedback loop?
- A. Negative
 - B. Positive
 - C. Open
 - D. Closed
90. Pervious paving areas allow rainwater infiltration and also reduce which of these environmental impacts?
- A. Erosion
 - B. Sedimentation
 - C. Air Borne Dust
 - D. Heat Island Effect