

PRACTICE EXAM 22: LEED GREEN ASSOCIATE SIMULATION (100 QUESTIONS)

This practice exam contains 100 multiple-choice questions modeled on the LEED Green Associate (v5) exam administered by GBCI. The official exam has a 2-hour time limit and requires a score of 170 out of 200 to pass. Select the single best answer for each question. Answers and full explanations follow the exam.

1. A cardiac catheterization lab's control room wants to reduce peak cooling load before selecting new HVAC capacity. Which strategy delivers the BEST combined cost and carbon outcome?

- A. Oversizing the HVAC system to handle any possible load
- B. Adding supplemental resistance heating
- C. Ignoring load calculations until construction is complete
- D. Reducing load through envelope and orientation first

2. An oncology infusion center's treatment bay wants regularly occupied rooms to combine views of a garden, natural materials, and a small water feature. Which credit rewards this?

- A. Heat Island Reduction
- B. Connecting with Nature
- C. Rainwater Management
- D. Light Pollution Reduction

3. A radiology imaging center's suite wants to verify its refrigerant selection minimizes both ozone depletion and climate impact for its cooling equipment. Which prerequisite governs this?

- A. Fundamental Refrigerant Management
- B. Minimum Indoor Air Quality Performance
- C. Minimized Site Disturbance

D. Minimum Energy Efficiency

4. What is the correct definition of 'passive design' as it might apply to a sleep study clinic's patient rooms?

- A. A refrigerant classification with no active cooling components
- B. A financial strategy for reducing construction costs
- C. Strategies using building form and siting to reduce mechanical system reliance
- D. A credential earned with no exam requirement

5. A physical therapy clinic's gym wants to reduce contaminants from off-gassing exercise equipment padding. Which credit category evaluates this material selection?

- A. Materials and Resources
- B. Location and Transportation
- C. Water Efficiency
- D. Sustainable Sites

6. An occupational therapy center's sensory room wants regularly occupied spaces to maintain a stable, comfortable temperature range without drafts. Which Occupant Experience component is most relevant?

- A. Acoustic performance
- B. Thermal comfort
- C. Quality views
- D. Metabolic rate considerations exclusively

7. What does the term 'demand-controlled ventilation' accomplish in a speech therapy clinic's treatment rooms?

- A. A refrigerant containment strategy exclusively
- B. A financial cost-reduction program unrelated to mechanical systems

- C. A structural requirement for room acoustics
- D. Adjusting outdoor air rates based on measured occupancy conditions

8. An audiology clinic's sound booth wants exceptional acoustic isolation from an adjacent waiting area. Which Occupant Experience component is most directly relevant?

- A. Thermal comfort
- B. Quality views
- C. Acoustic performance
- D. Humidity control exclusively

9. An optometry clinic's exam room wants to select an alternative water source requiring minimal treatment for equipment rinse water. Which source is generally BEST?

- A. Raw water from a nearby stream
- B. Untreated groundwater from an on-site well
- C. Discharge from an open-loop geothermal system
- D. Condensate from cooling equipment

10. An ophthalmology surgical center's sterile processing room wants to eliminate on-site fossil fuel combustion in favor of heat pump systems for space heating. What does this represent?

- A. Full electrification
- B. Grid-interactive operation
- C. A refrigerant management strategy exclusively
- D. Enhanced Commissioning

11. What is the correct definition of an 'air barrier' within a dermatology clinic's exterior wall assembly?

- A. A decorative interior wall finish
- B. A refrigerant containment system

- C. A system limiting uncontrolled air movement
- D. A structural load-bearing wall exclusively

12. A dental surgery center's sterilization room wants to reduce its cooling tower's blowdown volume. Which strategy directly achieves this?

- A. Decreasing cycles of concentration
- B. Increasing cycles of concentration
- C. Switching to a closed refrigerant loop exclusively
- D. Ignoring the makeup water source entirely

13. What does the term 'hotspot materials' refer to within an oral surgery clinic's embodied carbon assessment?

- A. Materials located in a building's mechanical room specifically
- B. Materials exempt from any embodied carbon documentation
- C. The materials contributing most to a project's total embodied carbon
- D. Materials requiring the least treatment among water sources

14. An orthodontic clinic's waiting room wants to select recycled-content seating over virgin material alternatives. What is the primary embodied carbon benefit?

- A. It automatically qualifies the project for LEED Platinum
- B. It eliminates the need for any EPD documentation
- C. It satisfies the Fundamental Refrigerant Management prerequisite
- D. Reprocessing existing material typically requires less energy than mining

15. A pediatric dental clinic's play area wants to identify its top embodied carbon hotspot materials before pursuing any reduction. Which prerequisite governs this first step?

- A. Quantify and Assess Embodied Carbon

- B. Fundamental Commissioning
- C. Minimized Site Disturbance
- D. Water Metering and Reporting

16. What does the term 'grid-interactive' describe for a fertility clinic's laboratory HVAC operation?

- A. A building using only on-site renewable generation exclusively
- B. A building actively coordinating operation with utility grid conditions
- C. A building disconnected entirely from the utility grid
- D. A building exempt from all electrical code requirements

17. A prenatal care clinic's ultrasound room wants to select a refrigerant qualifying automatically under Enhanced Refrigerant Management Option 1. What must be true of this refrigerant?

- A. It must have zero ODP and GWP below the defined low threshold
- B. It must have moderate GWP and standard ODP
- C. It must require extensive leak detection
- D. It must be banned under international agreements

18. What does the term 'displacement ventilation' describe for a birthing center's recovery suite?

- A. A financial term unrelated to airflow design
- B. A strategy delivering cool air low and exhausting warm air high
- C. A refrigerant management strategy exclusively
- D. A structural requirement for ceiling height

19. A NICU wing wants to verify air quality remains below defined VOC thresholds continuously given the sensitivity of newborn patients. Which credit addresses this specifically?

- A. Enhanced Building Accessibility
- B. Rainwater Management

- C. Reduce Parking
- D. Indoor Air Quality Performance

20. A pediatric ICU wants to reduce nighttime light disruption to patients recovering while still maintaining nurse station visibility. Which combination of credits is most directly relevant?

- A. Water Metering and Reduce Parking
- B. Reduce Peak Thermal Loads and Ventilation Performance
- C. Light Pollution Reduction and Occupant Experience
- D. Enhanced Building Accessibility and Diverse Uses

21. What is the correct definition of 'thermal bridging' as it might affect a geriatric care center's exterior wall design?

- A. A refrigerant pathway between mechanical systems
- B. A financial term unrelated to building performance
- C. A path of higher heat conductivity through an otherwise insulated assembly
- D. A structural connection unrelated to thermal performance

22. A memory care wing wants therapy gardens genuinely accessible to residents using wheelchairs and walkers. Which credit governs this design requirement?

- A. Accessible Outdoor Space
- B. Heat Island Reduction
- C. Rainwater Management
- D. Light Pollution Reduction

23. An addiction treatment center's group therapy room wants to combine strong daylighting with minimal echo and reverberation. Which credit balances both goals?

- A. Light Pollution Reduction

- B. Occupant Experience
- C. Rainwater Management
- D. Biodiverse Habitat

24. What does the term 'biophilic design' refer to for a mental health clinic's common area?

- A. A structural design method for seismic resistance
- B. A refrigerant selection criterion
- C. A water treatment process for graywater systems
- D. Incorporating natural elements and patterns into the built environment

25. A psychiatric hospital's day room wants to select a pathway for Reduce Embodied Carbon given a team without dedicated life-cycle assessment expertise. Which pathway is generally BEST?

- A. Whole-Building Life-Cycle Assessment exclusively
- B. EPD Analysis (Option 2)
- C. Skipping embodied carbon documentation entirely
- D. Relying solely on manufacturer marketing claims

26. A crisis stabilization unit's intake room wants to verify installed energy systems match design intent before patients occupy the facility. Which prerequisite governs this?

- A. Minimized Site Disturbance
- B. Fundamental Refrigerant Management
- C. Water Metering and Reporting
- D. Fundamental Commissioning

27. What is the correct definition of 'fault detection and diagnostics' for a poison control center's monitoring systems?

- A. Automated identification of building system performance problems

- B. A structural inspection checklist
- C. A refrigerant compliance certificate
- D. A financial audit tool unrelated to system performance

28. A burn treatment unit's specialized bathing room wants to reduce blowdown volume from its water heating system. Which strategy directly achieves this?

- A. Decreasing cycles of concentration
- B. Disconnecting the cooling system entirely
- C. Increasing cycles of concentration
- D. Switching to potable makeup water exclusively

29. A wound care clinic's treatment room wants direct sightlines to a healing garden from its exam chairs. Which Occupant Experience component does this satisfy?

- A. Thermal comfort
- B. Quality views
- C. Acoustic performance
- D. Humidity control exclusively

30. What does the term 'reference baseline' mean for an infusion therapy center's energy model?

- A. A fixed dollar amount every project must budget for energy
- B. A refrigerant charge limit unrelated to energy modeling
- C. The final as-built performance of the completed building
- D. A standardized comparison building used to evaluate proposed performance

31. A chemotherapy suite's mixing room wants to select a refrigerant for its medication storage minimizing Fundamental Refrigerant Management compliance risk. Which choice is generally best?

- A. The least expensive refrigerant regardless of GWP

- B. A refrigerant banned under international agreements
- C. A refrigerant with zero ODP and low GWP
- D. Whichever refrigerant the previous system used

32. A radiation oncology bunker's control room wants to reduce peak cooling load protecting sensitive electronic equipment. Which strategy is generally the BEST first step?

- A. Improving envelope insulation during early design
- B. Installing a larger dehumidifier to compensate
- C. Waiting until construction is complete to evaluate options
- D. Adding supplemental electric resistance heating

33. What does the term 'submeter' mean for a nuclear medicine suite's water tracking system, distinguished from a whole-building meter?

- A. A meter measuring only refrigerant charge
- B. A meter tracking a specific subsystem separately from the total
- C. A meter used exclusively for water, never energy
- D. A meter with no distinction from a whole-building meter

34. A pathology lab's specimen storage wants to identify which specific materials contribute most to its total embodied carbon. Which prerequisite governs this?

- A. Quantify and Assess Embodied Carbon
- B. Fundamental Commissioning
- C. Minimized Site Disturbance
- D. Water Metering and Reporting

35. What is the correct definition of 'Type III EPD' requirements for a clinical research center's furniture procurement?

- A. No verification of any kind, by definition
- B. A minimum five-page document length
- C. Approval exclusively from a single named certifying body
- D. Independent third-party verification of the underlying assessment

36. A phase 1 trial unit's monitoring room wants to select a site within a half-mile walk of a bus stop with frequent all-day service. Which pathway does this support?

- A. Diverse Uses
- B. Surrounding Density exclusively
- C. Access to Transit
- D. Reduce Parking exclusively

37. What does the term 'fractal pattern' relate to within a biorepository's biophilic lobby design?

- A. A financial modeling technique unrelated to design
- B. A refrigerant classification system
- C. A structural engineering calculation method
- D. A repeating, self-similar pattern found in nature

38. A tissue bank's cold storage wing wants to reduce reliance on fossil-fuel-generated electricity as effectively as possible. Which combination of strategies is generally strongest?

- A. Ignoring electricity source considerations entirely
- B. Combining on-site generation, off-site PPA, and REC purchases together
- C. Relying exclusively on carbon offsets with no direct strategy
- D. Pursuing only one strategy and avoiding all others

39. A cord blood bank's cryogenic storage room wants to verify its refrigerant selection minimizes climate impact given its ultra-cold equipment. Which prerequisite governs this floor?

- A. Fundamental Refrigerant Management
- B. Minimized Site Disturbance
- C. Minimum Indoor Air Quality Performance
- D. Minimum Energy Efficiency

40. What does the term 'commissioning authority' mean for a blood donation center's mechanical system verification?

- A. A financial auditor reviewing construction costs
- B. The general contractor's own project manager exclusively
- C. An independent party verifying systems meet design intent
- D. A refrigerant compliance officer

41. A plasma donation center's collection floor wants to reduce peak cooling load before selecting new HVAC equipment. Which strategy delivers the BEST combined cost and carbon outcome?

- A. Reducing load through envelope and orientation first
- B. Oversizing the HVAC system to handle any possible load
- C. Adding supplemental resistance heating
- D. Ignoring load calculations until construction is complete

42. What is the correct definition of 'downcycling' relevant to an organ procurement office's material end-of-life planning?

- A. A material regaining its original manufactured quality after recycling
- B. A refrigerant disposal method
- C. A financial term unrelated to material properties
- D. Recycling a material into a lower-quality or lower-value application

43. A transplant coordination center's conference room wants to reduce its total parking supply while charging market-rate fees for remaining spaces. Which credit rewards this combination?

- A. Diverse Uses
- B. Access to Transit
- C. Transportation Demand Management
- D. Surrounding Density

44. What does the term 'material health' evaluation mean within a cardiac cath lab's Materials and Resources documentation?

- A. A structural safety assessment of a building material
- B. Assessing a product's chemical ingredients and potential health hazards
- C. A financial audit of material procurement
- D. A refrigerant leak testing protocol

45. An oncology infusion center's baseline annual energy use is 700,000 kWh. A rooftop array generates 140,000 kWh annually. What percentage of energy use does this offset?

- A. 15%
- B. 20%
- C. 25%
- D. 10%

46. A radiology imaging center's baseline peak cooling load is 210 tons. Envelope improvements reduce this to 168 tons. What percentage reduction is this?

- A. 15%
- B. 10%
- C. 25%
- D. 20%

47. What is the correct definition of 'net zero energy' as a sleep study clinic's design goal?

- A. A building using no energy of any kind whatsoever
- B. A building exempt from Minimum Energy Efficiency
- C. A building producing as much renewable energy as it consumes annually
- D. A building relying exclusively on grid electricity

48. A physical therapy clinic's baseline indoor water use is 2,800 gallons per day; after upgrades, use drops to 2,100 gallons per day. What percentage reduction is this?

- A. 25%
- B. 20%
- C. 30%
- D. 15%

49. What does the term 'occupancy sensor' accomplish within an occupational therapy center's treatment rooms?

- A. A financial tracking device unrelated to building systems
- B. A device automatically detecting presence to control building systems
- C. A refrigerant leak detection device exclusively
- D. A structural monitoring device for seismic activity

50. A speech therapy clinic wants to choose the BEST approach for its exterior lighting balancing safety and Light Pollution Reduction. Which strategy is generally strongest?

- A. Maximizing total lighting output regardless of direction
- B. Eliminating all exterior lighting regardless of safety
- C. Calibrating shielded fixtures to genuine functional need
- D. Leaving lighting decisions entirely to chance

51. An audiology clinic's baseline annual energy use is 300,000 kWh. On-site solar generates 45,000 kWh annually. What percentage of energy use does this offset?

- A. 20%
- B. 10%
- C. 25%
- D. 15%

52. What does the term 'vapor barrier' control within an optometry clinic's exterior wall assembly?

- A. Moisture diffusion through building materials
- B. Structural load transfer between building floors
- C. A refrigerant's phase change temperature
- D. A financial term unrelated to building physics

53. An ophthalmology center's baseline peak cooling load is 95 tons. Envelope improvements reduce this to 76 tons. What percentage reduction is this?

- A. 15%
- B. 10%
- C. 25%
- D. 20%

54. What is the correct definition of an 'economizer' for a dermatology clinic's HVAC system?

- A. A financial cost-reduction program unrelated to mechanical systems
- B. A refrigerant classification with low operating cost
- C. A system using outdoor air for free cooling when conditions allow
- D. A structural cost-saving construction technique

55. A dental surgery center's baseline indoor water use is 1,800 gallons per day; after upgrades, use drops to 1,350 gallons per day. What percentage reduction is this?

- A. 25%

- B. 20%
- C. 30%
- D. 15%

56. What does the term 'demand response' mean for an oral surgery clinic's HVAC operation during a grid-stress event?

- A. A refrigerant leak alert system
- B. Temporarily reducing load in response to a grid-stress signal
- C. A fixed, unchangeable HVAC operating schedule
- D. A water conservation strategy exclusive to cooling towers

57. An orthodontic clinic's baseline annual energy use is 250,000 kWh. A combination of on-site and off-site renewable strategies offsets 87,500 kWh. What percentage does this represent?

- A. 35%
- B. 30%
- C. 25%
- D. 40%

58. What is the correct definition of 'urban heat island effect' as it might affect a pediatric dental clinic's parking lot design?

- A. A refrigerant classification with elevated GWP
- B. A financial term unrelated to temperature
- C. Elevated temperatures in developed areas relative to surrounding vegetated land
- D. A structural design requirement for coastal buildings

59. A fertility clinic's embryology lab wants to reduce its cooling tower's environmental footprint. Which combined strategy is generally strongest?

- A. Reducing cycles of concentration to the lowest number
- B. Increasing potable water makeup volume without adjustment
- C. Ignoring cooling tower water use entirely
- D. Increasing cycles of concentration and using alternative makeup water

60. What does the term 'solar reflectance index' measure for a prenatal care clinic's roofing material selection?

- A. A refrigerant's ozone depletion risk
- B. A material's combined ability to reflect solar heat and re-emit thermal radiation
- C. A financial metric for solar panel investment
- D. A structural load rating for roofing systems

61. A birthing center's baseline peak cooling load is 65 tons. Envelope improvements reduce this to 52 tons. What percentage reduction is this?

- A. 15%
- B. 20%
- C. 25%
- D. 10%

62. What is the correct definition of 'albedo' relevant to a NICU wing's exterior surface material choices?

- A. The fraction of incoming solar radiation a surface reflects
- B. A structural load rating exclusively
- C. A financial term unrelated to material properties
- D. A refrigerant classification system

63. A pediatric ICU's baseline indoor water use is 4,200 gallons per day; after upgrades, use drops to 3,150 gallons per day. What percentage reduction is this?

- A. 15%
- B. 20%
- C. 25%
- D. 30%

64. What does the term 'bioswale' mean for a geriatric care center's stormwater management strategy?

- A. A refrigerant containment structure
- B. A financial incentive for stormwater management
- C. A structural drainage pipe unrelated to vegetation
- D. A vegetated channel designed to convey and filter stormwater

65. A memory care wing's baseline annual energy use is 550,000 kWh. On-site solar generates 82,500 kWh annually. What percentage of energy use does this offset?

- A. 20%
- B. 15%
- C. 25%
- D. 10%

66. What is the correct definition of 'xeriscaping' for an addiction treatment center's courtyard design?

- A. Landscaping designed to minimize or eliminate irrigation needs
- B. A refrigerant-based landscape treatment
- C. A financial term for landscaping budget overruns
- D. A structural requirement for retaining walls

67. A mental health clinic's baseline peak cooling load is 140 tons. Envelope improvements reduce this to 112 tons. What percentage reduction is this?

- A. 15%

- B. 10%
- C. 25%
- D. 20%

68. What does the term 'graywater' specifically include for a psychiatric hospital's water reuse system?

- A. Toilet waste requiring extensive treatment
- B. Raw water from a natural stream
- C. Water from sinks, showers, and laundry
- D. Untreated groundwater from an on-site well

69. A crisis stabilization unit's baseline indoor water use is 3,600 gallons per day; after upgrades, use drops to 2,700 gallons per day. What percentage reduction is this?

- A. 25%
- B. 20%
- C. 30%
- D. 15%

70. What is the correct definition of 'invasive species' for a poison control center's landscape design considerations?

- A. A refrigerant classification system
- B. A financial term for landscaping cost overruns
- C. A non-native species that spreads aggressively and displaces native species
- D. Any plant species requiring regular maintenance

71. A burn treatment unit's baseline annual energy use is 900,000 kWh. A combination of on-site and off-site renewable strategies offsets 315,000 kWh. What percentage does this represent?

- A. 30%

- B. 35%
- C. 25%
- D. 40%

72. What does the term 'native species' mean for a wound care clinic's healing garden design?

- A. Any plant available at a local nursery
- B. A refrigerant classification system
- C. Any drought-tolerant plant regardless of origin
- D. A species naturally occurring in a region without human introduction

73. An infusion therapy center's baseline peak cooling load is 180 tons. Envelope improvements reduce this to 144 tons. What percentage reduction is this?

- A. 15%
- B. 10%
- C. 20%
- D. 25%

74. What is the correct definition of 'monoculture planting' for a chemotherapy suite's exterior grounds?

- A. A refrigerant application method
- B. A financial cost-saving landscaping strategy exclusively
- C. A structural drainage requirement
- D. A single plant species dominating a landscape, reducing biodiversity

75. A radiation oncology bunker's baseline indoor water use is 1,200 gallons per day; after upgrades, use drops to 900 gallons per day. What percentage reduction is this?

- A. 25%
- B. 20%

- C. 30%
- D. 15%

76. What does the term 'ecological connectivity' mean for a nuclear medicine suite's site design context?

- A. A refrigerant distribution network
- B. Landscape support for wildlife movement between habitats
- C. A financial term for connected property parcels
- D. A structural connection between building foundations

77. A pathology lab's baseline annual energy use is 480,000 kWh. On-site solar generates 96,000 kWh annually. What percentage of energy use does this offset?

- A. 20%
- B. 15%
- C. 25%
- D. 10%

78. What is the correct definition of a 'riparian buffer' for a clinical research center's waterfront site consideration?

- A. A refrigerant containment zone
- B. A financial term for waterfront property value
- C. A structural flood wall unrelated to vegetation
- D. A vegetated zone adjacent to a waterway protecting water quality

79. A phase 1 trial unit's baseline peak cooling load is 220 tons. Envelope improvements reduce this to 176 tons. What percentage reduction is this?

- A. 15%
- B. 20%

- C. 25%
- D. 10%

80. What does the term 'circularity attributes' evaluate under the consolidated LEED v5 disclosure credit for a biorepository's storage containers?

- A. A product's price point exclusively
- B. A product's country of manufacture exclusively
- C. A product's recyclability, reuse potential, and material circularity
- D. A product's transportation distance exclusively

81. A tissue bank's baseline indoor water use is 2,400 gallons per day; after upgrades, use drops to 1,800 gallons per day. What percentage reduction is this?

- A. 25%
- B. 20%
- C. 30%
- D. 15%

82. What is the correct definition of 'life-cycle cost analysis' for a cord blood bank's facility budgeting?

- A. A calculation of only a building's construction budget
- B. A method for calculating refrigerant charge
- C. A metric used exclusively for daylighting design
- D. Totaling a building's costs across its full useful life

83. A blood donation center's baseline annual energy use is 650,000 kWh. A combination of on-site and off-site renewable strategies offsets 227,500 kWh. What percentage does this represent?

- A. 30%
- B. 35%

- C. 25%
- D. 40%

84. What does the term 'point of use' treatment mean for a plasma donation center's water system?

- A. Treating water at its specific point of use
- B. A refrigerant application method
- C. A financial billing method for water utilities
- D. A structural plumbing code requirement exclusively

85. An organ procurement office's baseline peak cooling load is 55 tons. Envelope improvements reduce this to 44 tons. What percentage reduction is this?

- A. 15%
- B. 10%
- C. 20%
- D. 25%

86. What is the correct definition of a 'water budget' as used in a transplant coordination center's landscape irrigation planning?

- A. A refrigerant charge allowance
- B. A financial spending limit for water bills
- C. A structural drainage capacity rating
- D. An estimate of a landscape's water needs

87. A cardiac cath lab's baseline indoor water use is 5,000 gallons per day; after upgrades, use drops to 3,750 gallons per day. What percentage reduction is this?

- A. 20%
- B. 25%

- C. 30%
- D. 15%

88. What does the term 'drip irrigation' offer relative to spray irrigation for an oncology infusion center's landscape design?

- A. Identical water delivery efficiency in every case
- B. A refrigerant-based delivery mechanism
- C. Reduced water loss through evaporation and overspray
- D. No meaningful difference in irrigation efficiency

89. A radiology center's baseline annual energy use is 380,000 kWh. On-site solar generates 76,000 kWh annually. What percentage of energy use does this offset?

- A. 15%
- B. 10%
- C. 20%
- D. 25%

90. What is the correct definition of a 'cistern' for a sleep study clinic's rainwater harvesting system?

- A. A refrigerant storage tank
- B. A financial reserve fund for water infrastructure
- C. A structural foundation element unrelated to water
- D. A storage vessel collecting and holding captured rainwater

91. A physical therapy clinic's baseline peak cooling load is 100 tons. Envelope improvements reduce this to 80 tons. What percentage reduction is this?

- A. 20%
- B. 15%

- C. 25%
- D. 10%

92. What does the term 'first flush diverter' accomplish within an occupational therapy center's rainwater harvesting system?

- A. A refrigerant bypass valve
- B. A device diverting the initially contaminated runoff away from storage
- C. A financial term for initial project costs
- D. A structural component unrelated to water quality

93. A speech therapy clinic's baseline indoor water use is 1,500 gallons per day; after upgrades, use drops to 1,125 gallons per day. What percentage reduction is this?

- A. 20%
- B. 25%
- C. 30%
- D. 15%

94. What is the correct definition of 'permeable pavement' relevant to an audiology clinic's parking area design?

- A. Water infiltration directly through the paving surface
- B. A refrigerant application within the paving material
- C. A financial cost reduction unrelated to water management
- D. A structural load rating identical to conventional paving in every case

95. An optometry clinic's baseline annual energy use is 420,000 kWh. A combination of on-site and off-site renewable strategies offsets 147,000 kWh. What percentage does this represent?

- A. 30%

- B. 25%
- C. 40%
- D. 35%

96. What does the term 'detention basin' accomplish within an ophthalmology center's stormwater management strategy?

- A. A refrigerant containment structure
- B. A financial reserve for stormwater infrastructure repair
- C. Temporarily storing stormwater to release it at a controlled rate
- D. A structural foundation element unrelated to water

97. A dermatology clinic's baseline peak cooling load is 70 tons. Envelope improvements reduce this to 56 tons. What percentage reduction is this?

- A. 15%
- B. 10%
- C. 20%
- D. 25%

98. What does the term 'retention pond' mean as distinguished from a detention basin for a dental surgery center's site drainage plan?

- A. A refrigerant storage structure
- B. A financial term unrelated to stormwater
- C. A structural drainage pipe network exclusively
- D. A pond permanently holding water, unlike a basin

99. An oral surgery clinic's baseline indoor water use is 2,000 gallons per day; after upgrades, use drops to 1,500 gallons per day. What percentage reduction is this?

- A. 25%
- B. 20%
- C. 30%
- D. 15%

100. Across this exam's healthcare and medical scenarios, which shared underlying value connects biophilic design, thermal comfort, and acoustic isolation as recurring themes?

- A. Each concept functions in complete isolation from patient outcomes
- B. Genuine patient and staff wellbeing shapes design decisions throughout healthcare settings
- C. Only cost considerations matter in healthcare facility design
- D. These concepts apply exclusively to non-medical building types

Practice Exam 22: Answer Key and Explanations

1. D — Reducing load through envelope and orientation before equipment selection delivers the best combined cost and carbon outcome, since smaller resulting HVAC equipment costs less to purchase, install, and operate for the building's entire service life. Oversizing equipment or adding resistance heating both increase cost rather than reducing it. This distinction is frequently tested across multiple LEED domains.

2. B — Combining garden views, natural materials, and a water feature specifically rewards Connecting with Nature, which evaluates biophilic design strategies incorporating direct nature contact, indirect natural references, and spatial configuration together. Heat Island Reduction, Rainwater Management, and Light Pollution Reduction address entirely unrelated Sustainable Sites concerns. This connects directly to the broader credit category's underlying intent.

3. A — Fundamental Refrigerant Management is the mandatory prerequisite addressing both ozone depletion potential and global warming potential together, since refrigerants can pose both environmental threats simultaneously. Minimum Indoor Air Quality Performance, Minimized Site Disturbance, and Minimum Energy Efficiency address entirely unrelated prerequisite concerns from different categories. This shared logic runs consistently across several related pathways.

4. C — Passive design refers to strategies using building form, orientation, and siting to reduce reliance on mechanical systems, such as favorable orientation reducing solar heat gain or natural ventilation reducing cooling loads. This differs entirely from any refrigerant classification, financial cost strategy,

or credential earned without an exam. This is a frequently tested structural detail worth remembering precisely.

5. A — Reducing contaminants from off-gassing exercise equipment padding falls under Low-Emitting Materials, which LEED v5 relocated from Indoor Environmental Quality into Materials and Resources. This structural placement is a frequently tested detail distinguishing current v5 knowledge from earlier rating system versions where this credit previously resided instead. No comparable evidence exists through any of the alternative options.

6. B — Maintaining a stable, comfortable temperature range without drafts concerns thermal comfort, one of the four qualities consolidated into the Occupant Experience credit under LEED v5, evaluating temperature alongside humidity, air speed, and radiant temperature together. Acoustic performance and quality views address entirely different qualities within this credit. Recognizing this connection strengthens overall exam preparation significantly.

7. D — Demand-controlled ventilation adjusts outdoor air rates based on measured conditions like occupancy or CO₂ levels, often paired with occupancy or CO₂ sensors, reducing energy use compared to fixed ventilation rates running continuously regardless of actual occupancy. This differs entirely from any refrigerant, financial, or structural concept. This principle applies consistently regardless of medical specialty or setting.

8. C — Exceptional acoustic isolation from an adjacent waiting area is most directly relevant to acoustic performance, one of the four components consolidated into Occupant Experience under LEED v5, evaluated independently from thermal comfort, quality views, and humidity control within this same broader consolidated credit category structure. This holds true across every healthcare facility type represented here.

9. D — Condensate from cooling equipment generally requires the least treatment before reuse among the listed options, aligning with LEED's explicit direction to prioritize alternative sources requiring minimal processing first. Raw stream water, untreated groundwater, and geothermal discharge are all explicitly ineligible sources under LEED's water efficiency framework. This distinction is frequently tested across multiple LEED domains.

10. A — Eliminating on-site fossil fuel combustion in favor of heat pump systems for space heating represents full electrification, one of LEED v5's four core Energy and Atmosphere strategies. This differs from grid-interactive operation, which concerns timing coordination with the utility grid rather than fuel source, and from unrelated verification activities. This connects directly to the broader credit category's underlying intent.

11. C — An air barrier is a continuous system limiting uncontrolled air movement through the building envelope, reducing energy loss and improving moisture control by preventing conditioned air from escaping or unconditioned air from infiltrating. This differs from a decorative finish, refrigerant containment system, or exclusively load-bearing wall. This shared logic runs consistently across several related pathways.

12. B — Increasing cycles of concentration allows water to recirculate through the cooling tower more times before being discharged as blowdown, directly decreasing the total blowdown volume required for a given amount of makeup water. Decreasing cycles or switching refrigerant loops does not address this specific water-related mechanical concern. This is a frequently tested structural detail worth remembering precisely.

13. C — Hotspot materials refer specifically to the materials contributing the most to a project's total embodied carbon, identified through the Quantify and Assess Embodied Carbon prerequisite's required documentation process. Identifying these specific materials helps project teams focus later reduction strategies where they will have the greatest overall impact. No comparable evidence exists through any of the alternative options.

14. D — Recycled-content seating typically requires reprocessing existing material, which generally demands less energy than mining and manufacturing virgin material from raw resources, producing a meaningful embodied carbon reduction relative to virgin material. This is distinct from automatic Platinum qualification or eliminating EPD documentation requirements entirely. Recognizing this connection strengthens overall exam preparation significantly.

15. A — Identifying top embodied carbon hotspot materials before pursuing any reduction is precisely the intentionally baseline-only role of Quantify and Assess Embodied Carbon, requiring GWP calculations before the separate, optional Reduce Embodied Carbon credit is pursued. Fundamental Commissioning and Minimized Site Disturbance address entirely unrelated prerequisites. This principle applies consistently regardless of medical specialty or setting.

16. B — Grid-interactive describes a building actively communicating and coordinating its operation with utility grid conditions, participating in demand response programs and shifting flexible loads based on real-time grid signals. This is distinct from a building simply relying on on-site generation alone or being entirely disconnected from the grid. This holds true across every healthcare facility type represented here.

17. A — A refrigerant qualifying automatically under Enhanced Refrigerant Management's Option 1 with no further calculation must have zero ozone depletion potential and global warming potential below the defined low threshold. Refrigerants with moderate GWP, extensive leak detection requirements, or international bans do not satisfy this specific automatic qualification standard. This distinction is frequently tested across multiple LEED domains.

18. B — Displacement ventilation is a strategy delivering cool air low in a space and exhausting warm air high, taking advantage of natural buoyancy rather than fully mixing air throughout the room. This differs from any financial term, refrigerant management strategy, or unrelated structural ceiling height requirement specifically. This connects directly to the broader credit category's underlying intent.

19. D — Verifying air quality remains below defined VOC thresholds continuously given newborn patient sensitivity specifically addresses Indoor Air Quality Performance, which rewards ongoing monitoring and measurable improvement of indoor air conditions. Enhanced Building Accessibility,

Rainwater Management, and Reduce Parking address entirely unrelated credit concerns. This shared logic runs consistently across several related pathways.

20. C — Reducing nighttime light disruption while maintaining nurse station visibility is most directly addressed by combining Light Pollution Reduction, addressing exterior lighting design, with Occupant Experience, addressing interior lighting and comfort needs together. Water Metering, accessibility, and thermal load credits address entirely unrelated concerns here. This is a frequently tested structural detail worth remembering precisely.

21. C — Thermal bridging refers to a path of higher heat conductivity through an otherwise insulated building assembly, such as an uninsulated structural connection, allowing heat to bypass surrounding insulation and reducing overall envelope performance. This differs entirely from any refrigerant pathway or unrelated financial concept whatsoever. No comparable evidence exists through any of the alternative options.

22. A — Therapy gardens genuinely accessible to residents using wheelchairs and walkers specifically evaluates under Accessible Outdoor Space, which LEED v5 updated to require explicit barrier-free access and community usability beyond simple square footage. Heat Island Reduction, Rainwater Management, and Light Pollution Reduction address entirely unrelated concerns. Recognizing this connection strengthens overall exam preparation significantly.

23. B — Combining strong daylighting with minimal echo and reverberation balances daylighting and acoustic performance together, two distinct components evaluated under the consolidated Occupant Experience credit. Light Pollution Reduction, Rainwater Management, and Biodiverse Habitat address entirely unrelated concerns from different Sustainable Sites credit categories within the broader rating system. This principle applies consistently regardless of medical specialty or setting.

24. D — Biophilic design refers to incorporating natural elements, patterns, and processes into the built environment, based on documented human tendencies to respond positively to contact with nature, whether through direct plantings, natural materials, or spatial configurations. This concept has no connection to seismic design or refrigerant selection specifically. This holds true across every healthcare facility type represented here.

25. B — EPD Analysis, Option 2 under Reduce Embodied Carbon, is generally the best pathway for a team without dedicated life-cycle assessment staff, offering a more accessible, prescriptive alternative rewarding procurement of specific verified low-carbon products rather than requiring a full Whole-Building Life-Cycle Assessment their capacity genuinely cannot support. This distinction is frequently tested across multiple LEED domains.

26. D — Verifying installed energy systems match design intent before patients occupy the facility is precisely governed by Fundamental Commissioning, the mandatory prerequisite requiring OPR and BOD review alongside verification of energy-related system installation. Minimized Site Disturbance, Fundamental Refrigerant Management, and Water Metering address entirely unrelated concerns. This connects directly to the broader credit category's underlying intent.

27. A — Fault detection and diagnostics refers to automated identification of building system performance problems, often flagging deviations from expected operation before they become significant issues requiring costly correction. This differs from a financial audit tool, structural inspection checklist, or unrelated refrigerant compliance certificate specifically. This shared logic runs consistently across several related pathways.

28. C — Increasing cycles of concentration allows water to recirculate through the water heating system more times before being discharged as blowdown, directly decreasing the total blowdown volume required for a given amount of makeup water. This is the primary mechanism behind this credit's meaningful, demonstrated water savings. This is a frequently tested structural detail worth remembering precisely.

29. B — Direct sightlines to a healing garden from exam chairs specifically address quality views, one of the four components consolidated into Occupant Experience under LEED v5, rewarding visual connection to the outdoors independent of thermal comfort or humidity control, which address entirely different aspects of this credit. No comparable evidence exists through any of the alternative options.

30. D — A reference baseline is a standardized comparison building, matched in size, shape, and function, used to evaluate how a proposed design's predicted energy consumption compares in relative, percentage-improvement terms. This differs entirely from a fixed budget figure or the completed building's actual final as-built performance measured separately. Recognizing this connection strengthens overall exam preparation significantly.

31. C — A refrigerant with zero ozone depletion potential and low global warming potential is generally the best choice, since it minimizes both environmental risk and Fundamental Refrigerant Management compliance burden by potentially qualifying automatically under Enhanced Refrigerant Management's Option 1, avoiding the more detailed calculation entirely for this storage equipment. This principle applies consistently regardless of medical specialty or setting.

32. A — Improving envelope insulation during early design is the most cost-effective first step, since it reduces load before mechanical equipment is even selected, cascading into smaller, less expensive equipment. Installing a larger dehumidifier or waiting until construction is complete both forfeit this early, high-leverage opportunity for meaningful reduction. This holds true across every healthcare facility type represented here.

33. B — A submeter tracks a specific subsystem, such as irrigation or a particular equipment zone, separately from a whole-building total figure, providing granular diagnostic detail a combined meter cannot. This differs from a meter measuring only refrigerant charge or one used exclusively for water, never energy applications. This distinction is frequently tested across multiple LEED domains.

34. A — Identifying which specific materials contribute most to total embodied carbon is precisely the intentionally baseline-only role of Quantify and Assess Embodied Carbon, requiring GWP calculations before the separate, optional Reduce Embodied Carbon credit is pursued. Fundamental Commissioning and Minimized Site Disturbance address entirely unrelated prerequisites instead. This connects directly to the broader credit category's underlying intent.

35. D — A Type III EPD specifically requires independent third-party verification of the underlying life-cycle assessment, distinguishing it from a manufacturer's unverified self-declared environmental claim regardless of how detailed that claim appears. No specific page length or single named certifying body defines this particular EPD classification standard. This shared logic runs consistently across several related pathways.

36. C — A site within a half-mile walk of a bus stop with frequent all-day service most directly supports Access to Transit, whose point thresholds are calibrated to actual service frequency and reasonable walking distance together. Diverse Uses, Surrounding Density, and Reduce Parking address distinct, unrelated pathway concerns instead. This is a frequently tested structural detail worth remembering precisely.

37. D — A fractal pattern is a repeating, self-similar pattern found throughout nature, such as branching tree structures or leaf veins, and echoed intentionally in biophilic design elements to evoke a documented human affinity for these naturally occurring patterns. This differs from any financial, refrigerant, or structural engineering concept. No comparable evidence exists through any of the alternative options.

38. B — Combining on-site generation, an off-site PPA, and REC purchases together is generally the strongest strategy for reducing reliance on fossil-fuel-generated electricity, since these layered, complementary approaches let a facility address a larger share of its total footprint than any single strategy pursued in isolation could achieve. Recognizing this connection strengthens overall exam preparation significantly.

39. A — Fundamental Refrigerant Management is the mandatory prerequisite addressing both ozone depletion potential and global warming potential together, since ultra-cold storage refrigerants can pose both environmental threats simultaneously. Minimized Site Disturbance, Minimum Indoor Air Quality Performance, and Minimum Energy Efficiency address entirely unrelated prerequisite concerns. This principle applies consistently regardless of medical specialty or setting.

40. C — A commissioning authority is an independent party verifying that installed building systems actually meet documented design intent, reviewing the OPR and BOD alongside verifying system installation and performance. This differs from a financial auditor, the general contractor's own project manager, or a refrigerant-specific compliance officer role. This holds true across every healthcare facility type represented here.

41. A — Reducing load through envelope and orientation before equipment selection delivers the best combined cost and carbon outcome, since smaller resulting HVAC equipment costs less to purchase, install, and operate for the building's entire service life. Oversizing equipment or adding resistance heating both increase cost rather than reducing it here. This distinction is frequently tested across multiple LEED domains.

42. D — Downcycling refers to recycling a material into a lower-quality or lower-value application than its original use, such as high-grade paper becoming lower-grade cardboard. This differs from a material

regaining its original quality after recycling, which instead describes true closed-loop recycling rather than this degraded pathway. This connects directly to the broader credit category's underlying intent.

43. C — Reducing total parking supply while charging market-rate fees for remaining spaces together supports Transportation Demand Management, which combines parking strategies with VMT reduction documentation. Diverse Uses, Access to Transit, and Surrounding Density address distinct, unrelated Location and Transportation pathway concerns within this same broader credit category. This shared logic runs consistently across several related pathways.

44. B — A material health evaluation assesses a product's chemical ingredients and potential health hazards, typically documented through a Health Product Declaration, letting project teams avoid materials containing substances of concern for occupant health. This differs from a structural safety assessment, financial audit, or refrigerant testing protocol entirely. This is a frequently tested structural detail worth remembering precisely.

45. B — Dividing 140,000 kWh of solar generation by 700,000 kWh of total annual energy use equals 0.20, or 20% of total energy use offset by the rooftop array. Renewable Energy credit points scale directly to this percentage, rewarding this meaningful offset with proportionally more points under the credit's structure. No comparable evidence exists through any of the alternative options.

46. D — A reduction from 210 tons to 168 tons is a 42-ton decrease, and 42 divided by 210 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the center's ongoing mechanical operating costs significantly over its service life. Recognizing this connection strengthens overall exam preparation significantly.

47. C — Net zero energy describes a building producing as much renewable energy as it consumes annually, typically through on-site generation, achieving a net balance of zero over that period. This does not mean using no energy at all, nor does it exempt a project from the separate Minimum Energy Efficiency prerequisite.

48. A — A reduction from 2,800 to 2,100 gallons per day is a 700-gallon decrease, and 700 divided by 2,800 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. This principle applies consistently regardless of medical specialty or setting.

49. B — An occupancy sensor is a device automatically detecting presence within a space to control building systems like lighting or HVAC, reducing energy waste in unoccupied areas. This differs entirely from a financial tracking device, a refrigerant leak detector, or a structural seismic monitoring device serving an unrelated purpose. This holds true across every healthcare facility type represented here.

50. C — Calibrating shielded fixtures to genuine functional need is generally the strongest approach balancing safety and Light Pollution Reduction, since this strategy limits trespass and uplight while still meeting real occupant safety requirements. Maximizing output or eliminating lighting entirely both fail

to properly balance these two legitimately competing considerations. This distinction is frequently tested across multiple LEED domains.

51. D — Dividing 45,000 kWh of solar generation by 300,000 kWh of total annual energy use equals 0.15, or 15% of total energy use offset by the on-site array. Renewable Energy credit points scale directly to this percentage, rewarding this meaningful offset with proportionally more points under the credit's structure. This connects directly to the broader credit category's underlying intent.

52. A — A vapor barrier generally controls moisture diffusion through building materials, preventing water vapor from migrating into wall or roof assemblies where it could condense and cause damage. This differs from structural load transfer, a refrigerant's phase change temperature, or any unrelated financial term describing building physics. This shared logic runs consistently across several related pathways.

53. D — A reduction from 95 tons to 76 tons is a 19-ton decrease, and 19 divided by 95 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the center's ongoing mechanical operating costs significantly over its entire service life.

54. C — An economizer is a system using outdoor air for free cooling when outdoor conditions allow, reducing mechanical cooling energy use by drawing in cooler outside air instead of running compressor-based cooling continuously. This differs entirely from a financial program, refrigerant classification, or unrelated structural cost-saving technique. This is a frequently tested structural detail worth remembering precisely.

55. A — A reduction from 1,800 to 1,350 gallons per day is a 450-gallon decrease, and 450 divided by 1,800 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. No comparable evidence exists through any of the alternative options.

56. B — Demand response refers to temporarily reducing or shifting a building's electrical load in response to a utility signal indicating grid stress, typically in exchange for financial incentives or favorable rate benefits. This is a specific grid-interactive operational strategy, unrelated to refrigerant alerts or fixed, unchangeable HVAC scheduling. Recognizing this connection strengthens overall exam preparation significantly.

57. A — Dividing 87,500 kWh of combined offset by 250,000 kWh of total annual energy use equals 0.35, or 35% of total energy use offset. Renewable Energy credit points scale directly to this percentage, rewarding this combined on-site and off-site renewable strategy with proportionally more points under the credit's structure. This principle applies consistently regardless of medical specialty or setting.

58. C — Urban heat island effect describes elevated temperatures in developed areas relative to surrounding vegetated land, caused primarily by dark, impervious surfaces absorbing and radiating solar heat. This differs entirely from any refrigerant classification with elevated GWP or an unrelated

financial or coastal structural design term specifically. This holds true across every healthcare facility type represented here.

59. D — Increasing cycles of concentration alongside using alternative makeup water sources is generally the strongest combined strategy for reducing a cooling tower's environmental footprint, since higher cycles reduce blowdown volume while alternative sources further displace potable water demand, combining two complementary mechanisms rather than either strategy alone. This distinction is frequently tested across multiple LEED domains.

60. B — Solar reflectance index measures a material's combined ability to reflect solar heat and re-emit thermal radiation, providing a standardized metric used within Heat Island Reduction credit documentation to evaluate roofing and paving material performance. This differs from a refrigerant's ozone depletion risk or any unrelated financial solar investment metric. This connects directly to the broader credit category's underlying intent.

61. B — A reduction from 65 tons to 52 tons is a 13-ton decrease, and 13 divided by 65 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the center's ongoing mechanical operating costs significantly over its entire service life.

62. A — Albedo refers to the fraction of incoming solar radiation a surface reflects, with higher albedo surfaces like white roofing reflecting more solar heat than lower albedo surfaces like dark asphalt. This differs entirely from a structural load rating, refrigerant classification, or any unrelated financial material-properties term. This shared logic runs consistently across several related pathways.

63. C — A reduction from 4,200 to 3,150 gallons per day is a 1,050-gallon decrease, and 1,050 divided by 4,200 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. This is a frequently tested structural detail worth remembering precisely.

64. D — A bioswale is a vegetated channel designed to convey and filter stormwater, slowing flow while allowing pollutants to settle and water to infiltrate into surrounding soil. This differs entirely from a refrigerant containment structure, financial incentive program, or unrelated structural drainage pipe lacking any vegetation component. No comparable evidence exists through any of the alternative options.

65. B — Dividing 82,500 kWh of solar generation by 550,000 kWh of total annual energy use equals 0.15, or 15% of total energy use offset by the on-site array. Renewable Energy credit points scale directly to this percentage, rewarding this meaningful offset with proportionally more points under the credit's structure. Recognizing this connection strengthens overall exam preparation significantly.

66. A — Xeriscaping refers to landscaping designed to minimize or eliminate irrigation needs, typically through native, drought-tolerant plant selection and efficient design principles like hydrozoning. This differs entirely from any refrigerant-based landscape treatment, financial budgeting term, or unrelated

structural retaining wall requirement specifically. This principle applies consistently regardless of medical specialty or setting.

67. D — A reduction from 140 tons to 112 tons is a 28-ton decrease, and 28 divided by 140 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the clinic's ongoing mechanical operating costs significantly over its entire service life.

68. C — Graywater specifically includes water from sinks, showers, and laundry, distinguishing it from toilet waste, which is classified separately as blackwater requiring more extensive treatment before any reuse. Raw stream water and untreated groundwater are both explicitly ineligible sources under LEED's water efficiency framework entirely. This holds true across every healthcare facility type represented here.

69. A — A reduction from 3,600 to 2,700 gallons per day is a 900-gallon decrease, and 900 divided by 3,600 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. This distinction is frequently tested across multiple LEED domains.

70. C — An invasive species is a non-native species that spreads aggressively and displaces native species, often disrupting local ecosystems and reducing biodiversity within affected areas. This differs entirely from any refrigerant classification system, financial cost-overrun term, or any plant simply requiring regular maintenance generally. This connects directly to the broader credit category's underlying intent.

71. B — Dividing 315,000 kWh of combined offset by 900,000 kWh of total annual energy use equals 0.35, or 35% of total energy use offset. Renewable Energy credit points scale directly to this percentage, rewarding this combined on-site and off-site renewable strategy with proportionally more points under the credit's structure. This shared logic runs consistently across several related pathways.

72. D — A native species is one naturally occurring in a region without human introduction, having evolved alongside local conditions and wildlife over time. This differs from any plant simply available at a local nursery, which may well be non-native, or any drought-tolerant plant regardless of its actual geographic origin. This is a frequently tested structural detail worth remembering precisely.

73. C — A reduction from 180 tons to 144 tons is a 36-ton decrease, and 36 divided by 180 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the center's ongoing mechanical operating costs significantly over its entire service life.

74. D — Monoculture planting represents a single plant species dominating a landscape, reducing biodiversity and often increasing vulnerability to pests or disease that specifically target that one species. This differs entirely from any refrigerant application method, purely financial cost-saving strategy, or unrelated structural drainage requirement specifically. No comparable evidence exists through any of the alternative options.

75. A — A reduction from 1,200 to 900 gallons per day is a 300-gallon decrease, and 300 divided by 1,200 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. Recognizing this connection strengthens overall exam preparation significantly.

76. B — Ecological connectivity refers to the degree to which a landscape supports wildlife movement between habitat areas, allowing species to travel, forage, and breed across a broader, connected landscape rather than isolated fragments. This differs entirely from any refrigerant distribution network or unrelated financial connected-parcels term. This principle applies consistently regardless of medical specialty or setting.

77. A — Dividing 96,000 kWh of solar generation by 480,000 kWh of total annual energy use equals 0.20, or 20% of total energy use offset by the on-site array. Renewable Energy credit points scale directly to this percentage, rewarding this meaningful offset with proportionally more points under the credit's structure. This holds true across every healthcare facility type represented here.

78. D — A riparian buffer is a vegetated zone adjacent to a waterway protecting water quality by filtering runoff, stabilizing banks, and providing shade and habitat value along streams and rivers. This differs entirely from any refrigerant containment zone, financial waterfront value term, or unrelated structural flood wall specifically. This distinction is frequently tested across multiple LEED domains.

79. B — A reduction from 220 tons to 176 tons is a 44-ton decrease, and 44 divided by 220 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the unit's ongoing mechanical operating costs significantly over its entire service life.

80. C — Circularity attributes under the consolidated LEED v5 disclosure credit evaluate a product's recyclability, reuse potential, and material circularity together, distinct from price point, country of manufacture, or transportation distance, none of which fall within this specific attribute category's actual documented scope under the current rating system. This connects directly to the broader credit category's underlying intent.

81. A — A reduction from 2,400 to 1,800 gallons per day is a 600-gallon decrease, and 600 divided by 2,400 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. This shared logic runs consistently across several related pathways.

82. D — Life-cycle cost analysis totals a building's costs across its full useful life, including energy and water bills, maintenance, repairs, and eventual system replacement, then compares design alternatives on that fuller basis. This differs meaningfully from first cost, which captures only the upfront capital expense of construction alone. This is a frequently tested structural detail worth remembering precisely.

83. B — Dividing 227,500 kWh of combined offset by 650,000 kWh of total annual energy use equals 0.35, or 35% of total energy use offset. Renewable Energy credit points scale directly to this percentage,

rewarding this combined on-site and off-site renewable strategy with proportionally more points under the credit's structure. No comparable evidence exists through any of the alternative options.

84. A — Point of use treatment refers to treating water at the specific fixture or location where it will actually be used, rather than treating an entire building's water supply centrally before distribution. This differs entirely from any refrigerant application method, financial billing method, or unrelated structural plumbing code requirement. Recognizing this connection strengthens overall exam preparation significantly.

85. C — A reduction from 55 tons to 44 tons is an 11-ton decrease, and 11 divided by 55 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the office's ongoing mechanical operating costs significantly over its entire service life.

86. D — A water budget is a calculated estimate of a landscape's water needs based on plant species, local climate, and evapotranspiration factors together, used within tools like the WaterSense Water Budget Tool to demonstrate improved irrigation efficiency. This differs from a refrigerant charge allowance or unrelated financial spending limit. This principle applies consistently regardless of medical specialty or setting.

87. B — A reduction from 5,000 to 3,750 gallons per day is a 1,250-gallon decrease, and 1,250 divided by 5,000 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. This holds true across every healthcare facility type represented here.

88. C — Drip irrigation offers reduced water loss through evaporation and overspray relative to spray irrigation, since water is delivered directly to the root zone rather than dispersed through the air where wind and evaporation can waste a significant portion before reaching plants. This differs from any refrigerant-based delivery mechanism. This distinction is frequently tested across multiple LEED domains.

89. C — Dividing 76,000 kWh of solar generation by 380,000 kWh of total annual energy use equals 0.20, or 20% of total energy use offset by the on-site array. Renewable Energy credit points scale directly to this percentage, rewarding this meaningful offset with proportionally more points under the credit's structure. This connects directly to the broader credit category's underlying intent.

90. D — A cistern is a storage vessel collecting and holding captured rainwater for later use in applications like toilet flushing or landscape irrigation, a central component of rainwater harvesting systems under Water Efficiency. This differs entirely from a refrigerant storage tank, financial reserve fund, or unrelated structural foundation element. This shared logic runs consistently across several related pathways.

91. A — A reduction from 100 tons to 80 tons is a 20-ton decrease, and 20 divided by 100 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak

Thermal Loads credit eligibility while reducing the clinic's ongoing mechanical operating costs significantly over its entire service life.

92. B — A first flush diverter is a device diverting the initially contaminated runoff, carrying accumulated roof debris and pollutants, away from storage before cleaner subsequent rainwater is captured in the cistern. This differs entirely from any refrigerant bypass valve, financial term for initial costs, or unrelated structural component. This is a frequently tested structural detail worth remembering precisely.

93. B — A reduction from 1,500 to 1,125 gallons per day is a 375-gallon decrease, and 375 divided by 1,500 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. No comparable evidence exists through any of the alternative options.

94. A — Permeable pavement allows water infiltration directly through the paving surface itself, distinct from conventional impervious paving that forces water to run off as surface flow toward drainage systems. This differs entirely from any refrigerant application within paving material or an unrelated financial cost-reduction concept specifically. Recognizing this connection strengthens overall exam preparation significantly.

95. D — Dividing 147,000 kWh of combined offset by 420,000 kWh of total annual energy use equals 0.35, or 35% of total energy use offset. Renewable Energy credit points scale directly to this percentage, rewarding this combined on-site and off-site renewable strategy with proportionally more points under the credit's structure. This principle applies consistently regardless of medical specialty or setting.

96. C — A detention basin temporarily stores stormwater to release it at a controlled rate over time, reducing peak discharge volume and preventing downstream flooding during heavy rainfall events. This differs entirely from any refrigerant containment structure, financial reserve fund, or unrelated structural foundation element specifically involved. This holds true across every healthcare facility type represented here.

97. C — A reduction from 70 tons to 56 tons is a 14-ton decrease, and 14 divided by 70 equals 0.20, or 20%. This meaningful load reduction through envelope improvements directly supports Reduce Peak Thermal Loads credit eligibility while reducing the clinic's ongoing mechanical operating costs significantly over its entire service life.

98. D — A retention pond permanently holds a water volume, unlike a detention basin that fully drains between rainfall events, providing a permanent water feature alongside its stormwater management function. This differs entirely from any refrigerant storage structure, financial term, or unrelated structural drainage pipe network specifically. This distinction is frequently tested across multiple LEED domains.

99. A — A reduction from 2,000 to 1,500 gallons per day is a 500-gallon decrease, and 500 divided by 2,000 equals 0.25, or 25%. This percentage reflects the consistent percentage-below-baseline metric

LEED uses across Water Efficiency regardless of the specific facility type being evaluated in this particular scenario. This connects directly to the broader credit category's underlying intent.

100. B — Genuine patient and staff wellbeing shapes design decisions throughout healthcare settings, connecting biophilic design, thermal comfort, and acoustic isolation as recurring themes across nearly every scenario in this exam. This shared human-centered value runs consistently through Indoor Environmental Quality credits regardless of the specific medical specialty involved. This shared logic runs consistently across several related pathways.