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37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

Green Business Certification Inc. (GBCI)

GAFRE

LEED Green Associate

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Green Business Certification Inc. (GBCI) **GAFRE**, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, **GAFRE**
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1

SINGLE CHOICE

A project team is pursuing LEED certification for a new mid-rise office building. Which LEED credit category addresses the selection of a building site that is not located on prime farmland, in wetlands, or in habitats for threatened or endangered species?

- ☐ A Sustainable Sites
- ☒ B Location and Transportation
- ☐ C Energy and Atmosphere
- ☐ D Materials and Resources

ANSWER B

WHY Under LEED v4/LEED v4.1 the credit category Location and Transportation (Lt) addresses site selection concerns such as avoiding the development of land identified as prime farmland, wetlands, or habitat for threatened/endangered species (LT Credit 'Site Selection'). Sustainable Sites focuses more on site design and construction-phase environmental stewardship (erosion control, light pollution, etc.).

QUESTION 2

SINGLE CHOICE

Under the LEED Green Associate credential maintenance (CM) program, what is the minimum number of continuing education hours that credential holders must complete within their two-year reporting cycle?

- ☐ A 6 LEED-specific hours plus 6 general hours, for a total of 12 hours
- ☐ B 15 hours of any GBCI-approved continuing education
- ☐ C 20 hours of LEED-specific education with no general education requirement
- ☒ D 30 hours of which 12 must be LEED-specific

ANSWER D

WHY GBCI's LEED credential maintenance policy requires credential holders to complete 30 continuing education hours every two-year reporting cycle, of which at least 12 hours must be LEED-specific (i.e., directly related to green building and LEED), and the remaining 18 may be general continuing education.

QUESTION 3

SINGLE CHOICE

An architect is asked to quantify the total carbon emissions associated with a building material across every phase of its life, from raw material extraction through manufacturing, transport, use, and end-of-life disposal. Which established environmental measurement tool is best suited for this analysis?

- ☐ A Triple bottom line (TBL) reporting
- ☒ B Life-cycle assessment (LCA)
- ☐ C Environmental Protection Agency (EPA) benchmarking
- ☐ D Greenhouse Gas Protocol Scope 3 inventory

ANSWER B

WHY A life-cycle assessment (LCA), standardized under ISO 14040/14044, evaluates environmental impacts across the cradle-to-grave stages of a product or system. While the GHG Protocol and TBL are related frameworks, the formal, comprehensive tool for quantifying cradle-to-grave impacts of a building material is the LCA.

QUESTION 4

SINGLE CHOICE

A project team wants to reduce the urban heat island effect of a new parking lot. Which site design strategy directly addresses this concern under the LEED Sustainable Sites category?

- ☐ A Planting native, drought-tolerant vegetation
- ☒ B Installing open-grid pavement or a high-reflectance ('cool') roof over the structure
- ☐ C Locating the site near existing utility infrastructure
- ☐ D Reducing interior water fixture flow rates

ANSWER B

WHY The Heat Island Reduction credit in LEED's Sustainable Sites category gives points for strategies such as using high-reflectance roofing materials, vegetated roofs, or open-grid pavement on a significant percentage of the site's non-roof and roof hardscape. Native planting and fixture flow rates address biodiversity and water efficiency respectively.

QUESTION 5

SINGLE CHOICE

A mechanical engineer is specifying an air-handling system for a commercial building. Which of the following strategies is explicitly recognized in LEED for capturing thermal energy from exhaust air to pre-condition incoming ventilation air?

- ☐ A Demand-controlled ventilation (DCV)
- ☒ B Energy recovery ventilation (ERV) or heat recovery ventilation (HRV)
- ☐ C Variable refrigerant flow (VRF) refrigerant piping
- ☐ D Chilled beam radiant cooling

ANSWER B

WHY Energy recovery ventilation (ERV) and heat recovery ventilation (HRV) systems capture sensible and/or latent energy from building exhaust to precondition outdoor air, reducing heating and cooling loads. LEED's Energy and Atmosphere credits recognize ERV/HRV for improved ventilation energy efficiency. DCV, VRF, and chilled beams are energy-efficiency strategies but do not specifically recover energy from exhaust airstreams.

QUESTION 6

MULTIPLE CHOICE

Which of the following water-efficiency strategies are recognized within LEED's Water Efficiency (WE) category? (Choose two.)

- ☒ A Installing dual-flush or low-flow water closets and aerating lavatory faucets
- ☒ B Capturing and reusing rainwater for landscape irrigation and toilet flushing
- ☐ C Using chlorofluorocarbon (CFC)-based refrigerants in chillers
- ☐ D Sealing drywall assemblies with low-VOC joint compound

ANSWER A - B

WHY LEED's Water Efficiency category addresses both indoor potable water reduction (low-flow fixtures, dual-flush water closets, aerators) and outdoor water reduction through alternative water sources such as harvested rainwater and condensate water. CFC-based refrigerants and low-VOC joint compound belong respectively to the Materials/Energy and Indoor Environmental Quality concerns, not water efficiency.

QUESTION 7

MULTIPLE CHOICE

Which of the following material-related strategies are recognized in LEED's Materials and Resources (MR) category for reducing project environmental impacts? (Choose two.)

- ☒ **A** Specifying building products with Environmental Product Declarations (EPDs)
- ☒ **B** Reusing or salvaging existing building structure and shell elements
- ☐ **C** Installing occupancy sensors in office spaces
- ☐ **D** Painting interior walls with dark accent colors to reduce glare

ANSWER A • B

WHY LEED v4/v4.1 Materials and Resources credits reward transparency and lifecycle disclosure, including products with EPDs and the reuse of existing building elements (e.g., building reuse credits). Occupancy sensors relate to Energy and Atmosphere (or IEQ lighting), and decorative paint color is not a recognized MR strategy for reducing environmental impact.

QUESTION 8

SINGLE CHOICE

A new school building is being designed to support low-emitting materials and good indoor air quality. Which LEED strategy directly addresses reducing the concentration of volatile organic compounds (VOCs) off-gassed from adhesives, sealants, paints, and coatings?

- ☒ **A** Low-Emitting Materials credit in Indoor Environmental Quality
- ☐ **B** Daylight and Views credit in Indoor Environmental Quality
- ☐ **C** Thermal Comfort credit in Indoor Environmental Quality
- ☐ **D** Acoustic Performance credit in Indoor Environmental Quality

ANSWER A

WHY The LEED v4/v4.1 Low-Emitting Materials credit within the Indoor Environmental Quality category requires that adhesives, sealants, paints, coatings, flooring systems, and composite wood comply with published VOC content and emissions standards (e.g., CDPH Standard Method). Daylight, thermal comfort, and acoustic credits address separate IEQ concerns.

QUESTION 9

SINGLE CHOICE

A project team convenes a charrette at the earliest stage of a new hospital project to brainstorm synergies between energy, water, indoor air quality, and site decisions. This collaborative, systems-thinking approach is most consistent with which LEED-related process?

- ☐ A Submittal review phase
- ☒ B Integrated (integrative) design process
- ☐ C Construction document phase
- ☐ D Post-occupancy evaluation

ANSWER B

WHY The integrated design process (also called integrative design or IP) is an early, collaborative design approach in which the project team explores cross-disciplinary synergies to maximize overall building performance. LEED v4/v4.1 explicitly rewards this approach through the Integrative Process credit in the Location and Transportation category.