

Part B – Green Building Practices

1. Which building system is responsible for the most energy consumption?

- HVAC
- Water heating
- Lighting
- Plug loads

2. Which of the following best defines building envelope?

- The building's foundation, slab, exterior walls and windows and roof.
- The building's insulation.
- The building's foundation.
- The building's walls and roof.

3. A building that is well insulated will...

- Have a higher heating and cooling load
- Use more energy
- Use less energy
- Have a higher heating and cooling load and use more energy
- Have a lower heating and cooling load
- Have a lower heating and cooling load and use less energy

4. What is the whole-building approach?

- Ensuring that HVAC system turns off if a window is opened.
- The idea that all systems should be viewed independently from one another.
- Ensuring that building systems work well together.
- The building is efficient even if comfort is sacrificed.

5. What is NOT a method of ensuring the envelope is airtight?

- Air sealing with caulk
- Removing all insulation
- Air sealing with tape
- Using a blower door test

6. A building with a tight envelope does not need an HVAC system.

- True
- False

7. As envelopes become tighter, ...

- HVAC equipment becomes larger
- HVAC equipment have smaller loads.
- HVAC equipment becomes more expensive.
- HVAC equipment doesn't need to be tested.

8. What are some technologies used to conserve water and energy?

- Low-flow and more efficient toilets
- Low-flow showerheads
- Automatic sensors
- All of the above

9. Which of the following is a method to make lighting more efficient?

- Installing sensors to reduce the amount of time lights are on.
- Leaving the lights on when not in use.
- Switching on all the lights in a room when there is daylight from windows.
- Increasing power allocation to the building's lighting system.

10. Why are volatile organic compounds (VOCs) dangerous?

- They are organic and therefore not dangerous.
- They are produced as a byproduct from generating clean energy.
- They are pollutants.
- They fill up the air quickly.

11. A Construction Indoor Air Quality (CIAQ) Plan is:

- A plan that reduces indoor air quality problems resulting from construction activities.
- An approach used to examine air quality throughout the building's life cycle.
- A method of measuring indoor air quality during the construction process.
- A method of measuring indoor air quality once construction is complete.

12. The goal of a Construction Indoor Air Quality (CIAQ) Plan is to:

- protect the health and well-being of construction workers.
- protect the health and well-being of occupants.
- All of the above.

13. An example of green cleaning, which reduces exposure to unhealthy chemicals, is:

- using certified low-emitting cleaning products.
- cleaning with less frequency.
- requiring wet mopping at least once per week.
- using aerosol cans for cleaning.

14. Embodied energy is:

- the total carbon footprint of the raw materials required to make a structure.
- the energy involved in the installation of products in a building.
- the energy involved in the extraction of raw materials for a building.
- the energy required to extract, manufacture, transport, and install a product.

Part B – Green Building Practices continued

15. The goal of a Construction Waste Management (CWM) is to:

- reduce construction and demolition waste.
- sort waste into categories.
- recycle construction waste.
- lower cost associated with waste.

16. Switching to regionally sourced materials reduces carbon emissions for construction because:

- the materials do not need to be transported as far.
- locally produced materials are greener.
- manufacturers use renewable energy for production.
- All of the above.

17. Integrated project delivery involves:

- Designers, contractors, and trades working together throughout design and construction.
- One specific trade managing the design and construction process.
- No trades working together throughout the design and construction process.
- Occupants coordinating with the trades at the end of the design and construction process.

18. Which of the following does commissioning (Cx) accomplish?

- Reduces energy consumption of a building.
- Improves occupant comfort and productivity.
- Reduces call-backs and change orders.
- All of the above.

19. What is an economic benefit of high-performance building?

- Lower utility bills for building owners and tenants.
- Less reliance on foreign oil.
- More jobs in clean energy and building retrofits.
- All of the above.