



## Course Instructions

**NOTE:** The following page contains a preview of the final exam. This final exam is identical to the final exam that you will take online after you purchase the course.

After you purchase the course online, you will be taken to a receipt page online which will have the following link: [Click Here to Take Online Exam](#). You will then click on this link to take the final exam.

### 3 Easy Steps to Complete the Course:

- 1.) Read the Course PDF – download from our website
- 2.) Purchase the Course Online & Take the Final Exam – see note above
- 3.) Print Out Your Certificate

## Building Envelope Impact on HVAC Energy Use - Final Exam

- 1.) Past simulation studies, *as per the abstract*, have shown that commercial building envelope leakage can result in \_\_\_\_\_.
- A) significant heating and cooling loads
  - B) mechanical system freeze-ups
  - C) poor indoor air quality
  - D) a decrease in heating and cooling loads
- 2.) Which of the following building types, *as per the abstract*, was not part of this study?
- A) light industrial
  - B) office building
  - C) retail building
  - D) apartment building
- 3.) ASHRAE stands for:
- A) American Society of Human Resources Architects and Engineers
  - B) American Standard for Heating, Radon, Architects and Engineers
  - C) Asian Society of Hong Kong Radon Assessors and Engineers
  - D) The American Society of Heating, Refrigerating, and Air-Conditioning Engineers
- 4.) As a part of the analysis method, the apartment building is included because the scope of Standard 90.1 includes multi-family structures of more than \_\_\_\_\_ stories above grade.
- A) 7
  - B) 5
  - C) 3
  - D) 10
- 5.) Regarding *airflow models*, which of the following was not one of the three different airtightness levels modeled in each building?
- A) No air barrier
  - B) Target
  - C) Worst achievable
  - D) Best achievable
- 6.) Regarding *airflow models*, about \_\_\_\_\_ % of the tested buildings listed in Appendix A would meet the 1.2 L/s-m<sup>2</sup> (0.24 cfm/ft<sup>2</sup>) selected target airtightness level.
- A) 1
  - B) 6
  - C) 30
  - D) 80
- 7.) According to table 6, office buildings in which city would have highest savings in dollars?
- A) Miami
  - B) Bismarck
  - C) St. Louis
  - D) Minneapolis
- 8.) From table 12, \_\_\_\_\_ had the lowest Cost of energy saved x Scalar of 8 for a two story office building.
- A) St. Louis
  - B) Bismarck
  - C) Phoenix
  - D) Miami
- 9.) The *results* of the study showed that for office buildings, the annual cost savings are largest in the heating dominated climates.
- A) True
  - B) False
- 10.) Which of the following is a true statement regarding the *airflow models* in this study?
- A) The values for the no air barrier level varied for each location, while the target and best achievable construction cases were the same for all locations.
  - B) The values for the no air barrier level were the same for each location, while the target and best achievable construction cases were varied for all locations.
  - C) The values for best achievable level varied for each location, while the target and best no air barrier cases were the same for all locations.
  - D) The values for the target level varied for each location, while the no air barrier and best achievable construction cases were the same for all locations.