1. An energy modeler has been assigned a renovation project with the following specifications:
• 10,000 ft² (929 m²), 3-story office building
• 1,000 ft (304.8 m) elevation
• hot, humid climate
The building owner wants to utilize daylighting and time-clock lighting controls to reduce energy use in the renovated building. Of the following inputs, which is the most important for developing a model that supports the owner's goals?

A. occupancy profile  
B. wall construction  
C. outdoor temperature  
D. indoor relative humidity

Objective 1C  
Task 2  
Analysis  
Answer:  A

2. The percentage of heat gain that is typically assigned to the plenum for a recessed fluorescent luminaire without venting is

A. 0.  
B. 30.  
C. 60.  
D. 80.

Objective 2D  
Task 3  
Recall  
Answer:  B

3. A design team has identified energy improvements for an existing building. The energy model estimates that the annual savings will be US $1,000. If the time horizon is 30 years and the discount rate is 3%, what is the net present value (US $) of the energy savings?

A. 15,900  
B. 19,600  
C. 25,300  
D. 30,000

Objective 4C  
Task 2  
Application  
Answer:  B