

# Unit 13 - Week 12

## Course outline

How does an NPTEL online course work?

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Lecture 56 Whole Building Performance - VI

Lecture 57 Building Performance - VII

Lecture 58 Whole Building Performance - VIII

Lecture 59 Whole Building Performance IX

Lecture 60 Whole Building Performance - X

Quiz : Assignment 12

Solution for Assignment 12

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## Assignment 12

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

**Due on 2020-04-22, 23:59 IST.**

1) "DesignBuilder does not allow to model a window with custom (or arbitrary or project specific) thermal specifications." Is the above statement true or false? **1 point**

- True  
 False

No, the answer is incorrect.  
Score: 0  
Accepted Answers: False

2) "It is not possible to model internal window shading such as Blinds, and Curtains, etc. in DesignBuilder." Is the above statement true or false? **1 point**

- True  
 False

No, the answer is incorrect.  
Score: 0  
Accepted Answers: False

3) "Lighting Control generally means that whenever the illuminance level drops below a desired target illuminance (threshold) level then artificial lighting will be turned on." Is the above statement true or false? **1 point**

- True  
 False

No, the answer is incorrect.  
Score: 0  
Accepted Answers: True

4) What is the full form of ECM in the context of building energy simulation? **1 point**

- Energy Calculating Machine  
 Energy Control Module  
 Energy Conversion Method  
 Energy Conservation Measure

No, the answer is incorrect.  
Score: 0  
Accepted Answers: Energy Conservation Measure

5) Building energy performance due to individual ECMs, over and above the base case, is usually evaluated to: **1 point**

- Analyze the performance of base case model  
 Analyze the performance of propose case model  
 Do cost-benefit analysis, ascertain pay-back period and return on investment due to individual ECMs  
 Analyze the implications due to neighboring buildings

No, the answer is incorrect.  
Score: 0  
Accepted Answers: Do cost-benefit analysis, ascertain pay-back period and return on investment due to individual ECMs

6) What is the correct formula of visible light reflectance of a surface in the context of daylight simulations in DesignBuilder? **1 point**

- 1 - Visible light absorptance  
 1 x Visible light absorptance  
 1 + Visible light absorptance  
 1 ÷ Visible light absorptance

No, the answer is incorrect.  
Score: 0  
Accepted Answers: 1 - Visible light absorptance

7) What does VLT stands for, in the context of building daylight simulation? **1 point**

- Visible Light Transmittance  
 Very Light Transmission  
 Visual Lighting Technologies  
 Virtual Lighting Technologies

No, the answer is incorrect.  
Score: 0  
Accepted Answers: Visible Light Transmittance

8) What is the general use of building daylight simulation? **1 point**

- To evaluate the energy performance of various building facade design and specifications  
 To evaluate the thermal performance of various building facade design and specifications  
 To evaluate the carbon emission performance of various building facade design and specifications  
 To evaluate the daylight performance of various building facade design and specifications

No, the answer is incorrect.  
Score: 0  
Accepted Answers: To evaluate the daylight performance of various building facade design and specifications

9) Which simulation engine runs behind DesignBuilder for daylight calculations? **1 point**

- EnergyPlus  
 Radiance  
 DaiLux  
 ReLux  
 AGI 32

No, the answer is incorrect.  
Score: 0  
Accepted Answers: Radiance

10) What is Energy Performance Index of a building? **1 point**

- Total energy consumed in a building over a day divided by total built up area in kWh/sq. m./day  
 Total energy consumed in a building over a period of six months divided by total built up area in kWh/sq. m./six-month  
 Total energy consumed in a building over a month divided by total built up area in kWh/sq. m./month  
 Total energy consumed in a building over a year divided by total built up area in kWh/sq. m./year

No, the answer is incorrect.  
Score: 0  
Accepted Answers: Total energy consumed in a building over a year divided by total built up area in kWh/sq. m./year