

## Unit 12 - Week 11

### Course outline

#### How to access the portal

#### Week 1

#### Week 2

#### Week 3

#### Week 4

#### Week 5

#### Week 6

#### Week 7

#### Week 8

#### Week 9

#### Week 10

#### Week 11

 The Role of Windows in Building Design\_Part II

 Standards Related to Glass II

 FAQs about usage of Glass in Buildings

 Case Study of a Different Concept of Facade

 Case Studies-Envelope Design and Its Impact\_Part I

 Case Studies-Envelope Design and Its Impact\_Part II

 A Case Study of Building Envelope in the context of Environmentally Sustainable Design\_Part I

 A Case Study of Building Envelope in the context of Environmentally Sustainable Design\_Part II

 Sustainable Building and Facades\_Part I

 Sustainable Building and Facades\_Part II

 Week 11 Feedback : Glass in Buildings : Design and Applications

 Quiz : Assignment 11

#### Week 12

#### DOWNLOAD VIDEOS

#### Lecture Notes

## Assignment 11

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

**Due on 2019-10-16, 23:59 IST.**

1) Which of the following parameters should be considered for designing a window? **1 point**

- Wind load
- U value
- SHGC
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All the above

2) Hurricane bar can withstand wind speed up to **1 point**

- 100kmph
- 250kmph
- 200kmph
- 400kmph

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
250kmph

3) The most relevant spectrum for designing a window is **1 point**

- Between gamma rays and X-rays
- Between infrared and microwaves
- Between ultraviolet and infrared
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Between ultraviolet and infrared

4) Which one of the following is not a window performance parameter? **1 point**

- U-factor
- SHGC
- Visible transmittance
- Topography

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Topography

5) Which material has the lowest thermal conductivity? **1 point**

- UPVC
- Steel
- Aluminium
- Glass

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
UPVC

6) Which of the following parameter should be considered to control energy loss? **1 point**

- High embedded energy
- Glass with high E coating
- Proper installation
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Proper installation

7) Identify the correct trend regarding the U-value of U-PVC framing material **1 point**

- 3 chamber>6 chamber>4 chamber with foam
- 3 chamber>4 chamber with foam>6 chamber
- 4 chamber with foam>6 chamber>3 chamber
- 6 chamber>4 chamber with foam>3 chamber

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
3 chamber>6 chamber>4 chamber with foam

8) Which one of the following statements is true? **1 point**

- Visible area of U-PVC window is lower than the Al window
- U-value of U-PVC window is higher than the Al window
- Heat flow in U-PVC window is higher than the Al window
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
None of the above

9) Identify the correct trend regarding the SHGC of glass **1 point**

- Tinted>Clear>Coated
- Clear>Coated>Tinted
- Clear>Tinted>Coated
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Clear>Tinted>Coated

10)Which of the following processing standard is mismatched? **1 point**

- EN 12150- Tempered
- EN 1863-Heat strengthened glass
- EN 1279-DGU
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
EN 1279-DGU

11)According to IS 875, the wind load depends on the **1 point**

- Wind speed
- Cyclone factor
- Topography factor
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All the above

12)How is wind pressure calculated? **1 point**

- $P_z=0.3 \times (v_z \times v_z) \times \text{Reduction factors}$
- $P_z=0.6 \times (v_z \times v_z) \times \text{Reduction factors}$
- $P_z=v_z \times v_z \times \text{Reduction factors}$
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
 $P_z=0.6 \times (v_z \times v_z) \times \text{Reduction factors}$

13)What are the factors considered for calculating the glass thickness in ASTM? **1 point**

- Type of glass
- Type of support
- Size of the glass
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All the above

14)What is the maximum allowable deflection for a glass façade in ASTM? **1 point**

- L/150
- L/200
- L/175
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
L/175

15)Which of the following statement is true according to the British standard? **1 point**

- Maximum deflection for SGU=Span/150
- Maximum deflection for SGU=Span/125
- Maximum deflection for DGU=Span/175
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Maximum deflection for DGU=Span/175

16)Identify the correct statement **1 point**

- Laminated glass is used only because it reduces the noise
- Thicker SGUs can bring down more noise than a standard DGU
- Symmetrical DGUs are used to reduce noise
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Thicker SGUs can bring down more noise than a standard DGU

17)Identify the false statement **1 point**

- FT glass is more expensive than HS glass
- HS glass is 2-3 times stronger than annealed glass
- FT glass is 4-5 times stronger than annealed glass
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
FT glass is more expensive than HS glass

18)Which of the following is a cause for spontaneous breakage in glass? **1 point**

- NiS
- SiO2
- CaO
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
NiS

19)Identify the correct statement **1 point**

- HS/FT will minimize the deflection of glass
- Increasing the thickness will increase the resistance to impact
- Presence of Nano-metallic coating helps to modify the heat and light ingress
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Presence of Nano-metallic coating helps to modify the heat and light ingress

20)The factors influencing the design of a façade are **1 point**

- Building orientation
- Materials
- Complexity of design
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All the above

21)Which of the following is required for a sustainable façade? **1 point**

- Sun path analysis
- Heat gain analysis
- Fenestration shading analysis
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All the above

22)Which analysis helps in determining the shading from adjacent buildings? **1 point**

- Sun path analysis
- Fenestration shading analysis
- Heat gain analysis
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Sun path analysis

23)What are the benefits of a daylight analysis? **1 point**

- Glare areas can be identified in the façade
- Helps in calculating the heat gain
- Helps in calculation of HVAC value
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Glare areas can be identified in the façade

24)Which of the following steps are taken for better construction of a façade? **1 point**

- >60% day lit areas
- Heat gain from building skin <1.0 watt/sft
- EPI<100 units/sqm/year
- All the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
All the above

25)Identify the correct trend in VLT of a glass **1 point**

- Clear>coated>tinted
- Clear>tinted>coated
- Coated>clear>tinted
- None of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
Clear>tinted>coated