

## Unit 7 - Week 6

### Course outline

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Week 6

Psychrometric Processes-3

Infiltration

Design Conditions

Cooling Load -1

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## Assignment 6

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

**Due on 2019-09-11, 23:59 IST.**

1) The atmospheric air at dry bulb temperature of 15°C enters a heating coil maintained at 40°C. The air leaves the heating coil at 25°C. The by-pass factor of the heating coil is **1 point**

- 0.376  
 0.4  
 0.6  
 0.67

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
0.6

2) The by-pass factor for a cooling coil **1 point**

- increase with increase in velocity of air passing through it  
 decreases with increase in velocity of air passing through it  
 remain unchanged with increase in velocity of air passing through it  
 may increase or decrease with increase in velocity of air passing through it depending upon the condition of air entering

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
increase with increase in velocity of air passing through it

3) Infiltration is measured by the **1 point**

- infiltrometer  
 evaporimeter  
 hydrometer  
 none of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
infiltrometer

4) The grill temperature of air is **1 point**

- temperature of air entering the cooling coil  
 temperature of air leaving the room  
 temperature of air entering the room  
 temperature of fresh air after mixing with return air

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
temperature of air entering the room

5) During winter season infiltration of air in the building takes place from **1 point**

- bottom side openings of building  
 top side openings of the building  
 through all openings of building  
 only through ventilator

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
bottom side openings of building

6) It is desired to condition the outside air from 70% relative humidity and 45°C dry bulb temperature to 50% relative humidity and 25°C dry bulb temperature (room condition). The practical arrangement will be **1 point**

- dehumidification  
 cooling and humidification  
 cooling and dehumidification  
 dehumidification and pure sensible cooling

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
cooling and dehumidification

7) Along the effective temperature line when dry bulb temperature increases **1 point**

- specific enthalpy of air increases  
 relative humidity of air decreases  
 WBT of air increases  
 all of the above

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
relative humidity of air decreases

8) Sensible heat factor is given by **1 point**

where S.H. = Sensible heat, and L.H.= Latent heat

- $\frac{S.H.}{S.H.+L.H.}$   
  $\frac{S.H.+L.H.}{S.H.}$   
  $\frac{S.H.}{L.H.-S.H.}$   
  $\frac{S.H.}{S.H.}$   
  $\frac{S.H.}{L.H.-S.H.}$

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
 $\frac{S.H.}{S.H.+L.H.}$

9) Air exchange rate is the ratio of **1 point**

- total volume of the building and volumetric flow rate of air per hour  
 total volume of the building and velocity of air entering the building  
 difference of air going out of the building and coming in the building per hour  
 cross flow of air between two adjacent rooms of the building

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
total volume of the building and volumetric flow rate of air per hour

10)The index which correlates the combined effects of air temperature, relative humidity and air velocity on the human body, is known as **1 point**

- mean radiant temperature  
 effective temperature  
 dew point temperature  
 none of these

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
effective temperature