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## Unit 13 - Week 11

Course  
outline

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the portal

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Assignment Zero

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Week 11

● Moisture  
Transmission

# Assignment 11

The due date for submitting this assignment has passed. **Due on 2019-10-16, 23:59 IST.**  
As per our records you have not submitted this assignment.

1) The correct statements amongst the following is/are 1 point

- Non-Fickian diffusion is diffusion through air spaces within fibrous structure
- Diffusion along the fiber itself is non-Fickian diffusion
- In case of hydrophilic fiber assemblies vapour diffusion obey Ficks law
- The amount of moisture adsorption increases with decrease in temperature

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*Diffusion along the fiber itself is non-Fickian diffusion*

*The amount of moisture adsorption increases with decrease in temperature*

2) The correct statement(s) amongst the following is/are 1 point

- The adsorption hysteresis increases with decrease in hydrophilicity of fiber
- The adsorption hysteresis increases with increase in hydrophilicity of fiber
- Water vapour permeability increases with increase in hygroscopicity of material
- Water vapour permeability decreases with increase in hygroscopicity of material

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*The adsorption hysteresis increases with increase in hydrophilicity of fiber*

*Water vapour permeability increases with increase in hygroscopicity of material*

3) The correct statement(s) amongst the following is/are 1 point

- Diffusivity decreases with increase in fiber volume fraction
- Diffusivity decreases with decrease in flatness of fiber cross section

and Clothing  
Comfort Cont...  
(unit?  
unit=49&lesson=50)

● Moisture  
Transmission  
and Clothing  
Comfort Cont...  
(unit?  
unit=49&lesson=51)

● Moisture  
Transmission  
and Clothing  
Comfort Cont...  
(unit?  
unit=49&lesson=52)

○ Quiz :  
**Assignment 11**  
(assessment?  
name=72)

○ Feedback Form  
(unit?  
unit=49&lesson=83)

## Week 12

### Text Transcripts

- Diffusivity decreases with an increases in fabric thickness
- Diffusivity increases with an increase in air permeability of the fabric

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*Diffusivity decreases with increase in fiber volume fraction*  
*Diffusivity decreases with an increases in fabric thickness*  
*Diffusivity increases with an increase in air permeability of the fabric*

4) Which among the following fiber cross section will give higher water vapour permeability? **1 point**

- Trilobal
- Triangular
- Circular
- Elliptical

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*Circular*

5) Evaporative heat transfer is the effective means of cooling when **1 point**

- Body temperature is higher than environmental temperature
- Body temperature is lower than environmental temperature
- Body and environmental temperature are equal
- Evaporative heat transfer is independent of body and environmental temperature

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*Body temperature is lower than environmental temperature*

6) Which of the following methods of measuring water vapour permeability is most suitable for water proof fabrics? **1 point**

- Inverted cup test method
- Evaporative dish method
- Upright cup method
- Vertical wicking method

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*Inverted cup test method*

7) The correct statement(s) amongst the following for microclimate simulator cum moisture vapour transmission tester is/are **1 point**

- When the fan is switched on microclimate temperature increases
- When the fan is switched on microclimate temperature decreases
- When the fan is switched on microclimate humidity increases
- when the fan is switched on, the microclimate humidity decreases

No, the answer is incorrect.  
Score: 0

Accepted Answers:

*When the fan is switched on microclimate temperature decreases*  
*when the fan is switched on, the microclimate humidity decreases*

8) With increase in fineness and fiber shape factor water vapour permeability of the material **1 point**

- Increases
- Decreases
- Remains constant
- First increases and then decreases

No, the answer is incorrect.

Score: 0

Accepted Answers:

*Decreases*

9) Which of the following statement(s) is/are incorrect **1 point**

- Diffusion coefficient of fiber increase with increase in concentration of water in fibers
- Diffusion coefficient of fiber increases with decrease in concentration of water in fibers
- Diffusion coefficient of fibers initially increases and then decreases with increase in concentration of water in fibers
- Diffusion coefficient of fiber is independent of concentration of water in fibers

No, the answer is incorrect.

Score: 0

Accepted Answers:

*Diffusion coefficient of fiber increases with decrease in concentration of water in fibers*

*Diffusion coefficient of fibers initially increases and then decreases with increase in concentration of water in fibers*

*Diffusion coefficient of fiber is independent of concentration of water in fibers*