Unit 10 - Week 8

Course outline

How to access the portal
Prerequisite
Assignment Zero

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Assignment 8

The due date for submitting this assignment has passed. Due on 2019-09-25, 23:59 IST. As per our records you have not submitted this assignment.

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

- Radiant temperature has a lesser influence than air temperature on heat gain or loss
- Radiant temperature has a higher influence than air temperature on heat gain or loss
- Cooler will be the body part which is far away from the source of the heat
- Cooler will be the body part which is nearest from the source of the heat

No, the answer is incorrect.
Score: 0
Accepted Answers:
Radiant temperature has a higher influence than air temperature on heat gain or loss
Cooler will be the body part which is far away from the source of the heat

2) The incorrect statement(s) amongst the following with respect to vasodilatations is/are

- Decrease the blood flow to the skin
- Has no effect on blood flow
- Reduces heat loss
- Increase the blood flow to the skin

No, the answer is incorrect.
Score: 0
Accepted Answers:
Decrease the blood flow to the skin
Has no effect on blood flow
Reduces heat loss

3) The incorrect statement(s) amongst the following with respect to vasoconstriction is/are

- Increases the heat loss

No, the answer is incorrect.
Score: 0
Accepted Answers:
Decrease the blood flow to the skin
Has no effect on blood flow
Reduces heat loss
4) The correct statement(s) amongst the following is/are

- The increase in body core temperature due to insufficient heat loss will produce hypothermia
- The increase in body core temperature due to insufficient heat loss will produce hyperthermia
- In cold environment the main method of heat loss is conduction
- In cold environment the main method of heat loss is radiation

No, the answer is incorrect.
Score: 0
Accepted Answers:
The increase in body core temperature due to insufficient heat loss will produce hyperthermia
In cold environment the main method of heat loss is radiation

5) The correct statement(s) amongst the following is/are

- Human body can be considered as a black body
- Human body cannot be considered as a black body
- Heat loss by radiation is approximately 2/3rd of thermal energy loss in cool and still air
- Vasodilatations decreases blood flow to the skin

No, the answer is incorrect.
Score: 0
Accepted Answers:
Human body can be considered as a black body
Heat loss by radiation is approximately 2/3rd of thermal energy loss in cool and still air

6) The transient heat flow is/are independent of

- Thermal inertia of clothing material
- Thickness of fabric
- Number of fabric layers
- Fabric contact area with body

No, the answer is incorrect.
Score: 0
Accepted Answers:
Thickness of fabric
Number of fabric layers

7) Heat transfer coefficient, h includes

- Conduction only
- Convection only
- Radiation only
- Conduction, convection and radiation

No, the answer is incorrect.
Score: 0
Accepted Answers:
Conduction, convection and radiation

8) The correct statement(s) amongst the following is/are  

- Higher value of $q_{\text{max}}$ indicates warmer fabric  
- Higher value of $q_{\text{max}}$ indicates cooler fabric  
- $q_{\text{max}}$ value of wool is lower than linen  
- $q_{\text{max}}$ value of wool is higher than linen  

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Higher value of $q_{\text{max}}$ indicates cooler fabric  
$q_{\text{max}}$ value of wool is lower than linen

9) With reference to guarded hot-plate, $U$-value is a measure of  

- Thermal transmittance  
- Thermal conductance  
- Thermal resistance  
- Thermal insulation  

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

10) The correct statement(s) amongst the following is/are  

- Thermo-receptors respond to steady temperature states at faster rate  
- Thermo-receptors respond to steady temperature states at slower rate  
- Thermo-receptors respond to dynamic temperature states at slower rate  
- Thermo-receptors respond to dynamic temperature states at faster rate  

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Thermo-receptors respond to steady temperature states at slower rate  
Thermo-receptors respond to dynamic temperature states at faster rate