

Exercises on Thermal Comfort

1. Which mechanism in thermal comfort study is each of the following referring to?
 - (a) A warm body transferring heat across space to surrounding surface.
 - (b) The heat flow through a substance by physical contact.
 - (c) Cooler air warmed by the body rise, drawing in more cool air to the body.
 - (d) Moisture exits the body through pores in the skin and changes to a vapour causing the skin to cool.

2. What are the two important conditions for achieving thermal comfort?

3. Briefly describe the heat balance equation for assessing thermal comfort and its parameters.

4. Explain the meaning of the following environmental indices used for evaluating the perception of thermal comfort.
 - i) Mean radiant temperature
 - ii) Operative temperature
 - iii) Effective temperature
 - iv) Equivalent temperature

5. Briefly explain the four situations where local thermal discomfort may happen.