1. Which of the following is the fastest process of heat transfer?

conduction

convection

radiation

insolation

Answer (c).

2. The factors directly proportional to the amount of heat conducted through a metal rod are -

Time of flow of Heat

Area of cross section

Temperature gradient

All the above

Answer (d).

3. 1 gm of ice at 0° C is mixed with 1 gm of steam at 100° C. After thermal equilibrium, the temperature of the mixture is

0° C

50° C

80° C

100° C

Answer (a).

4. What would be the thermal resistance of an ideal conductor?

Zero

One

Infinity

Ten

Answer (a).

5. Why does the bottom of a lake not freeze in severe winter even when the surface is all frozen?

The water has large specific heat

The conductivity of ice is low

The water has large latent heat of fusion

The temperature of the earth at the bottom of the lake is high.

Answer (b).

6. A cooking pot is coated black because -

black substances absorb more heat

black substances reflect more heat

black surfaces are easier to clean

the material of the pot would not be damaged

Answer (a).

7. Specific heat is -

the specific temperature at which the substance is in solid state.

the energy needed to increase the temperature of 1 gram of a substance by 1 degree Celsius.

the amount of heat conducted in 1 minute.

the heat needed to increase the temperature of 1 gallon of water by 1 degree Fahrenheit.

Answer (b).

8. How will a metal container full of hot water in vaccum lose heat?

by conduction

by convection

by radiation

will stay hot for ever

Answer (c).

9. A block of ice

cannot radiate heat

can radiate heat but cannot absorb heat

can absorb heat but cannot radiate heat

can radiate as well as absorb heat

Answer (d).

10. As a solid undergoes a phase change to a liquid state, it

releases heat while remaining at a constant temperature.

absorbs heat while remaining at a constant temperature.

releases heat as the temperature decreases.

absorbs heat as the temperature increases.

Answer (b).