

41 Lecture - PHY101

Important Mcqs

What is the SI unit of heat?

- A) Kelvin (K)
- B) Joule (J)
- C) Watt (W)
- D) Celsius ($^{\circ}\text{C}$)

Answer: B) Joule (J)

Which of the following is a good conductor of heat?

- A) Wood
- B) Plastic
- C) Copper
- D) Rubber

Answer: C) Copper

Which law of thermodynamics describes the relationship between temperature, energy, and entropy?

- A) First law
- B) Second law
- C) Third law
- D) None of the above

Answer: B) Second law

Which of the following is an example of convection?

- A) Heat transfer through a metal rod
- B) Heat transfer through a vacuum

C) Heat transfer through a fluid

D) None of the above

Answer: C) Heat transfer through a fluid

What is the heat required to change the phase of a substance called?

A) Sensible heat

B) Latent heat

C) Specific heat

D) None of the above

Answer: B) Latent heat

Which of the following materials has the highest specific heat capacity?

A) Water

B) Aluminum

C) Iron

D) Copper

Answer: A) Water

Which type of heat transfer does not require a medium?

A) Conduction

B) Convection

C) Radiation

D) None of the above

Answer: C) Radiation

What is the difference between temperature and heat?

A) Temperature is a measure of the average kinetic energy of particles, while heat is the total energy of particles.

B) Temperature and heat are the same thing.

C) Temperature is the total energy of particles, while heat is a measure of the average kinetic energy of particles.

D) None of the above.

Answer: A) Temperature is a measure of the average kinetic energy of particles, while heat is the total energy of particles.

Which of the following is not a state function?

A) Enthalpy

B) Temperature

C) Internal energy

D) Entropy

Answer: B) Temperature

What is the unit of thermal conductivity?

A) W/m^2

B) J/kg

C) J/m^3

D) W/mK

Answer: D) W/mK