

# 40 Lecture - PHY101

## Important Mcqs

**What is the unit of specific heat capacity?**

- a. J
- b. J/K
- c. J/kg
- d. J/(kg.K)

**Answer: d. J/(kg.K)**

**Which of the following is an example of a good thermal conductor?**

- a. Air
- b. Glass
- c. Aluminum
- d. Rubber

**Answer: c. Aluminum**

**Which law of thermodynamics states that heat flows from hotter to colder objects?**

- a. Zeroth law of thermodynamics
- b. First law of thermodynamics
- c. Second law of thermodynamics
- d. Third law of thermodynamics

**Answer: c. Second law of thermodynamics**

**Which of the following is an example of a reversible process?**

- a. Melting of ice
- b. Burning of coal

- c. Friction
- d. Explosions

**Answer: a. Melting of ice**

**What happens to the internal energy of a system during an adiabatic process?**

- a. It remains constant
- b. It increases
- c. It decreases
- d. It becomes zero

**Answer: a. It remains constant**

**Which of the following statements is true for an isothermal process?**

- a. The temperature of the system remains constant
- b. The pressure of the system remains constant
- c. The volume of the system remains constant
- d. The internal energy of the system remains constant

**Answer: a. The temperature of the system remains constant**

**The specific heat capacity of water is higher than that of iron. Which means:**

- a. It takes more heat energy to increase the temperature of water than iron
- b. It takes less heat energy to increase the temperature of water than iron
- c. Water and iron require the same amount of heat energy to increase their temperature
- d. None of the above

**Answer: a. It takes more heat energy to increase the temperature of water than iron**

**The amount of heat required to raise the temperature of a substance by one degree Celsius is called:**

- a. Heat energy
- b. Internal energy
- c. Thermal energy

d. Specific heat capacity

**Answer: d. Specific heat capacity**

**Which of the following statements is true for an adiabatic process?**

- a. No heat is added or removed from the system
- b. The temperature of the system remains constant
- c. The volume of the system remains constant
- d. The pressure of the system remains constant

**Answer: a. No heat is added or removed from the system**

**Which of the following is an example of a good thermal insulator?**

- a. Glass
- b. Rubber
- c. Aluminum
- d. Wool

**Answer: d. Wool**