# 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