



# Arjuna NEET (2024)

## Thermodynamics

**DPP-01**

- Thermodynamics is concerned with:
  - Total energy of a system
  - Energy changes in a system
  - Rate of a chemical change
  - Mass changes in nuclear reactions
- Intensive property is:
  - Moles
  - Volume
  - Mass
  - Temperature
- Which of the following statements are false?
  - Work is a state function
  - Temperature is a state function
  - Change in state is completely defined when initial and final state are specified
  - Work appears at the boundary of the system
- If in a container neither mass and nor heat exchange occurs then it constitutes a
  - Closed system
  - Open system
  - Isolated system
  - Imaginary system
- Which among the following is an extensive property of the system?
  - Temperature
  - Volume
  - Refractive index
  - Viscosity
- A tightly closed thermo flask contains some ice cubes. This constitutes
  - Closed system
  - Open system
  - Isolated system
  - Non-thermodynamic system
- Choose the correct answer- A thermodynamic state function is a quantity
  - Used to determine heat changes
  - Whose value is independent of path
  - Used to determine pressure volume work
  - Whose value depends on temperature only
- How many calories are required to heat 40 gram of argon from 40 to 100°C at constant volume? ( $R = 2 \text{ cal/mol K}$ )
  - 120
  - 2400
  - 1200
  - 180
- Calculate the amount of heat required to raise the temperature of 5 g of iron from 25°C to 75°C. The specific heat capacity of iron is 0.45 J/g.
  - 112.1
  - 112.5
  - 112.9
  - 112
- The heat required to raise the temperature of a body by 1 K is called
  - Specific heat
  - Thermal capacity
  - Water equivalent
  - None of these



**Note: Kindly find the Video Solution of DPPs Questions in the DPPs Section.**

## Answer Key

1. (2)
2. (4)
3. (1)
4. (3)
5. (2)

6. (3)
7. (2)
8. (4)
9. (2)
10. (2)



PW Web/App - <https://smart.link/7wwosivoicgd4>

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