Yakeen NEET 2.0 2026

Physical Chemistry By Amit Mahajan Sir

Thermodynamics and Thermochemistry

DPP: 1

Q1 Thermodynamics is concerned with
(A) Total energy of a system
(B) Energy changes in a system
(C) Rate of a chemical change
(D) Mass changes in nuclear reactions

Q2 Intensive property is
(A) Moles (B) Volume
(C) Mass (D) Temperature

Q3 Which of the following is **not** a state function?
(A) Pressure (B) Volume
(C) Temperature (D) Work

Q4 Extensive property is
(A) Enthalpy (B) Density
(C) Pressure (D) Temperature

Q5 A refrigerator is an example of
(A) Open system
(B) Closed system
(C) Isolated system
(D) Non thermodynamic system

Q6 Out of E, H, q, W and S which are state function?
(A) E, H, W (B) E, S, H, W
(C) E, H, S (D) E, H, q, W, S

Q7 Which of the following statements are false?
(A) Work is a state function
(B) Temperature is a state function
(C) Change in state is completely defined when initial and final state are specified
(D) Work appears at the boundary of the system

Q8 Both q and w are_____ function and $\mathrm{q}+\mathrm{w}$ is a_____ function.
(A) State, State (B) State, path
(C) Path, state (D) Path, path

Q9 Internal energy is an example of
(A) Path function
(B) State function
(C) Both A and B
(D) None of these

Q10 The intensive property among these quantities is
(A) Enthalpy (B) Mass/volume
(C) Mass (D) Volume

Q11 In thermodynamics which one of the following is not an intensive property?
(A) Pressure (B) Density
(C) Volume (D) Temperature

Q12 If in a container neither mass and nor heat exchange occurs then it constitutes a
(A) Closed system
(B) Open system
(C) Isolated system
(D) Imaginary system

Q13 Which of the following is not a state function?
(A) $\Delta \mathrm{S}$
(B) $\Delta \mathrm{G}$
(C) $\Delta \mathrm{H}$
(D) $\triangle \mathrm{Q}$

Q14 Which of the following is not a state function
(A) Internal energy

(B) Enthalpy
(C) Work
(D) Entropy

Q15 Which of the following is like a state function (a) $q + w$, (b) q, $(c)w$, (d) heat in isobaric process (e) work in adiabatic process
(A) a, b, c (B) a, e
(C) a, d, e (D) a, d

Q16 Which among the following is an extensive property of the system?
(A) Temperature
(B) Volume
(C) Refractive index
(D) Viscosity

Q17 Which of the following is not a state function?
(A) Heat
(B) Internal energy
(C) Enthalpy
(D) Entropy

Q18 Which of the following quantities is not a state function?
(A) Temperature (B) Entropy
(C) Enthalpy (D) Work

Q19 Which of the following is not an intensive property?
(A) Entropy (B) Pressure
(C) Temperature (D) Molar volume

Q20 Which of the following is a state function and also an extensive property?
(A) Internal energy
(B) Pressure
(C) Molar heat capacity
(D) Temperature

Q21 Warming ammonium chloride with sodium hydroxide in a test tube is an example of:
(A) Closed system
(B) Isolated system
(C) Open system
(D) None of these

Q22 A tightly closed thermo flask contains some ice cubes. This constitutes
(A) Closed system
(B) Open system
(C) Isolated system
(D) Non-thermodynamic system

Q23 Choose the **correct** answer- A thermodynamic state function is a quantity
(A) Used to determine heat changes.
(B) Whose value is independent of path.
(C) Used to determine pressure volume work.
(D) Whose value depends on temperature only.

Q24 A thermodynamic quantity is that:
(A) Which is used in thermochemistry
(B) Which obeys all the laws of thermodynamics
(C) Quantity which depends only on the state of the system
(D) Quantity which is used in measuring thermal change

Q25 Which is not characteristic of thermo-chemical equation?
(A) It indicates physical state of reactants and products.
(B) It indicates whether the reaction is exothermic or endothermic.
(C) It indicates allotrope of reactants if present.
(D) It indicates whether reaction would occur or not.

Answer Key

Q1	(B)
Q2	(D)
Q3	(D)
Q4	(A)
Q5	(B)
Q6	(C)
Q7	(A)
Q8	(C)
Q9	(B)
Q10	(B)
Q11	(C)
Q12	(C)
Q13	(D)
Q14	(C)
Q15	(C)
Q16	(B)
Q17	(A)
Q18	(D)
Q19	(A)
Q20	(A)
Q21	(C)
Q22	(C)
Q23	(B)
Q24	(C)
Q25	(D)