

21. Most of thermodynamic parameters are

- A. system B. surrounding
C. phase D. state functions

Answer: Option D

22. ΔH of a system can be calculated by which of following relationship

- A. $q = m \times s \times \Delta T$ B. $q = \Delta E$
C. $q = m \times v \times \Delta T$ D. $q = pv$

Answer: Option A

23. Change in enthalpy (H) of a system can be calculated by following relationship

- A. $\Delta H = \Delta E + P\Delta V$ B. $\Delta H = \Delta E - PV$
C. $\Delta H = \Delta E - q$ D. $\Delta H = \Delta E + q$

Answer: Option A

24. Which of the following is correct

- A. $q_p > q_v$ B. $\Delta E < \Delta H$
C. $\Delta E > \Delta H$ D. Both a & b

Answer: Option A

25. Two fundamental ways to transfer energy are

- A. pressure and temperature B. pressure and volume
C. heat and work D. heat and volume

Answer: Option C

26. Which of the following processes has always $\Delta H = -ve$

- A. formation of compound B. combustion
C. dissolution of ionic compound D. dilution of a solution

Answer: Option B

27. Enthalpy change can be

- A. calculated by Hess law B. can be measured by calorimeter
C. both a and b D. none

Answer: Option c

28. If there is interconversion of solid and liquid states then

- A. $\Delta V = 0$ B. $\Delta H = \Delta E$
C. $\Delta H > \Delta E$ D. both a & b

Answer: Option B

29. In order to determine ΔH_{latt} of ionic compound which is correct relationship

- A. $\Delta H_{\text{latt}} = \Delta H_{\text{f}} - \Delta H_{\text{x}}$ B. $\Delta H_{\text{latt}} = \Delta H_{\text{f}} + \Delta H_{\text{x}}$
C. $\Delta H_{\text{latt}} = \Delta H_{\text{a}} + \Delta H_{\text{v}}$ D. $\Delta H_{\text{latt}} = \Delta H_{\text{f}} - \Delta H_{\text{sol}}$

Answer: Option A

30. Hess law can be applied to determine

- A. ΔH_{f} B. ΔH_{latt}
C. ΔH_{comb} D. All of the above

Answer: Option D