

Model Question paper
Thermodynamics - I 3

11th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

Time : 00:45:00 Hrs

Total Marks : 30

5 x 1 = 5

Part - A

- 1) Which of the following is not a state function?
(a) q (b) $q+w$ (c) ΔH (d) $v+pV$
- 2) Which of the following is an extensive property?
(a) volume (b) density (c) refractive index (d) molar volume
- 3) Which of the following is an exothermic reactions?
(a) melting of ice (b) combustion reactions (c) hydrolysis (d) boiling of water
- 4) Which of the following is reversible process?
(a) Diffusion (b) melting (c) Neutralization (d) combustion
- 5) In which process, work is maximum?
(a) reversible (b) irreversible (c) exothermic (d) cyclic

Part - B

4 x 2 = 8

- 6) Name the equipment using which heat of combustion of compounds are determined?
- 7) Energy can be created and be destroyed.state whether this is true or false.
- 8) Define zeroth law of thermodynamics.
- 9) Give the relation between ΔU and ΔH .

Part - C

4 x 3 = 12

- 10) Define an adiabatic process
- 11) Write an difference between an exothermic and an endothermic process
- 12) Define first law of thermodynamics.
- 13) Explain thermal and mechanical equilibrium processes.

Part - D

2 x 5 = 10

- 14) Describe a bomb calorimeter and explain how heat of formation of an organic compound is determined.
- 15) Compare the enthalpy changes that occur between the neutralisation of a strong acid and a weak acid by sodium hydroxide.Explain the differences seen.
