

<b>CHEMISTRY-11</b>	<b>Chapter#07-First Half (7.0.0 - 7.4.0) Test-4</b>		
	Name:	Class:	ID:
Date: / /	<b>Marks Total: 30</b>	<b>Marks Obtained:</b>	
Time Allowed: 50 Min.			

Maximum Marks: 10

**(OBJECTIVE TYPE)**

Time Allowed: 10 Min.

**NOTE:** Tick The Correct Option:

- If an endothermic reaction is allowed to take place very rapidly in the air, the temperature of the surrounding air:
  - Remains constant
  - Increases
  - Decreases
  - Remains unchanged
- Which is not a state function?
  - Enthalpy
  - Work
  - Pressure
  - Temperature
- Standard enthalpies are measured at:
  - 273 K
  - 298 K
  - 373 K
  - All
- When the temperature of the system falls or the system cools, the reaction is:
  - Exothermic
  - Endothermic
  - Both
  - None
- The enthalpy of formation of liquid H<sub>2</sub>O is:
  - 393.7 kJmol<sup>-1</sup>
  - 41.6 kJmol<sup>-1</sup>
  - 285.58 kJmol<sup>-1</sup>
  - +180.51 kJmol<sup>-1</sup>
- When 24 g of C burns in 32 g of O<sub>2</sub>, the heat evolved is:
  - 393.7 kJ
  - 787.4 kJ
  - 285.58 kJ
  - 180.51 kJ
- Which process constitutes a limiting case between spontaneous and non-spontaneous reactions?
  - Unidirectional
  - Real
  - Irreversible
  - Reversible
- The total internal energy of the whole universe is taken as:
  - Zero
  - Infinite
  - Unity
  - None
- Energy is transferred between the system and the surroundings in the form of:
  - Temperature
  - Heat
  - Work
  - Both 'b' & 'c'
- At constant pressure:
  - $\Delta H = q_v$
  - $\Delta E = q_v$
  - $\Delta H = q_p$
  - $\Delta E = q_p$

Maximum Marks: 20

**(SUBJECTIVE TYPE)**

Time Allowed: 40 Min.

**SECTION-I**

**Q.2: Give brief answers to the following questions: (16)**

- Differentiate between exothermic and endothermic reactions.
- Differentiate between spontaneous and non-spontaneous processes.
- Explain that the burning of candle is a spontaneous reaction.
- What is state and state function? Explain with example.
- Prove that at constant volume,  $\Delta E = q_v$ .
- Prove that  $\Delta H = \Delta E + P\Delta V$ .

**SECTION-II**

**NOTE:** Attempt All Questions:

(08)

**Q.3: Differentiate between exothermic and endothermic reactions with examples.**

**Q.4: Define enthalpy and derive enthalpy change at constant pressure.**