

<b>CHEMISTRY-11</b>	<b>Chapter#05 (Complete) Test-1</b>		
	Name:	Class:	ID:
Date: / /	<b>Marks Total: 30</b>	<b>Marks Obtained:</b>	
Time Allowed: 60 Min.			

Maximum Marks: 06

**(OBJECTIVE TYPE)**

Time Allowed: 10 Min.

**NOTE:** Tick The Correct Option:

- Splitting of spectral lines when atoms are subjected to strong electric field is called:
  - Zeeman effect
  - Stark effect
  - Photoelectric effect
  - Compton effect
- When 6d orbital is complete, the entering electron goes into:
  - 7f
  - 7s
  - 7p
  - 7d
- Fast neutrons move with an energy:
  - 1 eV
  - 1.4 eV
  - 1.2 Mev
  - 0.2 Mev
- At which voltage, the gas discharge tube glows under reduced pressure?
  - 1000-5000 V
  - 5000-10000 V
  - 10000-15000 V
  - All of the above
- Rutherford directed a beam of  $\alpha$ -particles on a gold foil of thickness:
  - 0.004 cm
  - 0.0004 cm
  - 0.00004 cm
  - 0.000004 cm
- Which equation shows wave-particle duality?
  - $E = hv$
  - $E = mc^2$
  - $\lambda = \frac{h}{mv}$
  - $v = \frac{c}{\lambda}$

Maximum Marks: 24

**(SUBJECTIVE TYPE)**

Time Allowed: 50 Min.

**SECTION-I**

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

- Whichever gas is used in the discharge tube, the nature of the cathode rays remains the same. Why?
- $e/m$  value for positive rays, obtained from hydrogen is maximum. Explain.
- Justify that the size of  $\text{Li}^{2+}$  is even smaller than  $\text{He}^+$ .
- Differentiate between emission and absorption spectrum?
- How was dual nature of electron verified?
- Differentiate between orbit and orbital.
- Why are d-orbitals called five fold degenerate orbitals?
- What is 'n + l' rule?

**SECTION-II**

**NOTE:** Attempt All Questions:

(08)

**Q.3: Give four defects of Bohr's atomic model.**

**Q.4: Discuss magnetic and spin quantum numbers.**