

<b>CHEMISTRY-11</b>	<b>Chapter#05-First Half (5.1-5.5) Test-1</b>		
	Name:	Class:	ID:
Date: / /	<b>Marks Total: 25</b>	<b>Marks Obtained:</b>	
Time Allowed: 40 Min.			

Maximum Marks: 09

**(OBJECTIVE TYPE)**

Time Allowed: 10 Min.

**NOTE:** Tick The Correct Option:

- The nature of positive rays depends on:
  - The nature of electrodes
  - The nature of the discharge tube
  - The nature of the residual gas
  - All of the above
- Splitting of spectral lines when atoms are subjected to strong electric field is called:
  - Zeeman effect
  - Stark effect
  - Photoelectric effect
  - Compton effect
- Positive rays were discovered by:
  - J.J. Thomson
  - Rutherford
  - Chadwick
  - E. Goldstein
- At which pressure, the glow inside the gas discharge tube disappears and fluorescence is produced on the glass wall?
  - 0.1 torr
  - 0.01 torr
  - 0.001 torr
  - 1 torr
- Neutrons were produced, when a beam of  $\alpha$ -particles was bombarded on \_\_\_\_\_ target.
  - Be
  - C
  - N
  - Cu
- 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
- The value of Plank's constant is:
  - $6.62 \times 10^{-34}$  Js
  - $6.62 \times 10^{-32}$  Js
  - $6.62 \times 10^{-27}$  Js
  - $6.62 \times 10^{-21}$  Js
- The velocity of electron will be maximum in:
  - $E_1$
  - $E_2$
  - $E_3$
  - $E_\infty$
- Hydrogen spectrum consists of \_\_\_\_\_ spectral series.
  - 2
  - 3
  - 5
  - 7

Maximum Marks: 16

**(SUBJECTIVE TYPE)**

Time Allowed: 30 Min.

**SECTION-I**

**Q.2: Give brief answers to the following questions: (12)**

- How was it inferred that cathode rays are material particles?
- How does a free neutron decay?
- What were the defects in Rutherford's model?
- Define frequency, wavelength and wave number. OR Differentiate between frequency and wave number.
- Justify that the size of  $\text{Li}^{2+}$  is even smaller than  $\text{He}^+$ .
- What is Zeeman effect? OR Differentiate between Zeeman and Stark effect.

**SECTION-II**

**NOTE:** Attempt All Questions:

(04)

**Q.3: How are positive rays produced in discharge tube? Give properties of these rays.**

