

<b>CHEMISTRY-11</b>	<b>Chapter#05 (Complete-Smart Syllabus) Test-2</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 velocity of photon is:
  - Independent of wave length
  - Depends on its wave length
  - Depends on its source
  - Equal to square of its amplitude
- Splitting of spectral lines when atoms are subjected to strong electric field is called:
  - Zeeman effect
  - Stark effect
  - Photoelectric effect
  - Compton effect
- The  $e/m$  value for the positive rays is maximum for:
  - Hydrogen gas
  - Helium gas
  - Oxygen gas
  - Nitrogen gas
- Lyman series lies in spectral region:
  - Infrared
  - Visible
  - Ultra violet
  - None
- The name 'Proton' was given by \_\_\_\_\_ to the positive rays.
  - J. J. Thomson
  - E. Goldstein
  - Stoney
  - Rutherford
- The mass of an electron is:
  - $1.59 \times 10^{-19}$  kg
  - $1.7588 \times 10^{11}$  kg
  - $1.6022 \times 10^{-19}$  kg
  - $9.1095 \times 10^{-31}$  kg
- At infinity, the potential energy of the electron is always:
  - Positive
  - Negative
  - Zero
  - Infinite
- The idea of elliptical orbit was given by:
  - Bohr
  - Stark
  - Zeeman
  - Sommerfield
- Azimuthal quantum number value for p-subshell is:
  - $\ell = 0$
  - $\ell = 1$
  - $\ell = 2$
  - $\ell = 3$

Maximum Marks: 16

**(SUBJECTIVE TYPE)**

Time Allowed: 30 Min.

**SECTION-I**

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

- Why is  $e/m$  value of cathode rays just equal to that of electrons?
- How does a free neutron decay?
- What were the defects in Rutherford's model?
- Differentiate between continuous spectrum and line spectrum.
- Differentiate between orbit and orbital.
- Why are p-orbitals called triply fold degenerate orbitals?

**SECTION-II**

**NOTE:** Attempt All Questions:

(04)

**Q.3: What is Bohr's model of atom? Derive an expression for the radius of hydrogen atom.**