

CHEMISTRY-11	Chapter#05 (Complete-Smart Syllabus) Test-3		
	Name:	Class:	ID:
Date: / /	Marks Total: 30	Marks Obtained:	
Time Allowed: 50 Min.			

Maximum Marks: 10

(OBJECTIVE TYPE)

Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

- The wave number of the light emitted by a certain source is $2 \times 10^6 \text{ m}^{-1}$. The wave length of this light will be:
 (a) 500 nm (b) 500 m (c) 200 nm (d) $5 \times 10^7 \text{ m}$
- In the ground state of an atom, the electron is present:
 (a) In the nucleus (b) In the second shell
 (c) Nearest to the nucleus (d) Farthest from the nucleus
- Positive rays were discovered by:
 (a) J.J. Thomson (b) Rutherford (c) Chadwick (d) E. Goldstein
- When fast neutron carries nuclear reaction with nitrogen, it ejects particles:
 (a) α (b) β (c) γ (d) δ
- The maximum number of electrons in a sub-shell is given by:
 (a) $2\ell+1$ (b) $2\ell-1$ (c) $2(2\ell+1)$ (d) $2(2\ell-1)$
- Slow neutrons move with energy less than:
 (a) 1 eV (b) 2 eV (c) 3 eV (d) 4 eV
- The unit of wave number is:
 (a) m (b) m^{-1} (c) ms^{-1} (d) Hertz
- In hydrogen atom, the second orbit is _____ times away from the nucleus than the first orbit.
 (a) 2 (b) 3 (c) 4 (d) 8
- Line spectrum of sodium consists of _____ yellow lines.
 (a) Two (b) Three (c) Five (d) Seven
- Who proved experimentally the dual nature of electron?
 (a) De-Broglie (b) Davisson (c) Germer (d) Both 'b' & 'c'

Maximum Marks: 20

(SUBJECTIVE TYPE)

Time Allowed: 40 Min.

SECTION-I

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

- How can it be proved that cathode rays travel in straight line?
- Why are positive rays also called canal rays?
- Define frequency, wavelength and wave number.
- Why is the energy of an electron, revolving in an orbit, always negative?
- What is the origin of line spectrum of hydrogen?
- What is Heisenberg's uncertainty principle? Give its mathematical expression.

SECTION-II

NOTE: Attempt All Questions:

(08)

Q.3: Write J. J. Thomson's method to measure the e/m value of electron.

Q.4: What are quantum numbers? Explain principal quantum number.