

CHEMISTRY-11	Chapter#05-Second Half (5.6-5.9) Test-2		
	Name:	Class:	ID:
Date: / /	Marks Total: 25	Marks Obtained:	
Time Allowed: 40 Min.			

Maximum Marks: 09

(OBJECTIVE TYPE)

Time Allowed: 10 Min.

NOTE: Tick The Correct Option:

1) Quantum number values for 2p orbital are:

- (a) $n = 2, \ell = 1$ (b) $n = 1, \ell = 2$ (c) $n = 1, \ell = 0$ (d) $n = 2, \ell = 0$

2) Which equation correctly represents the Heisenberg uncertainty principle?

- (a) $\Delta x \cdot \Delta p = \frac{h}{4\pi}$ (b) $\Delta x \cdot \Delta p > \frac{h}{4\pi}$ (c) $\Delta x \cdot \Delta p \geq \frac{h}{4\pi}$ (d) $\Delta x \cdot \Delta p \leq \frac{h}{4\pi}$

3) The element which has maximum number of unpaired electrons is:

- (a) Cr_{24} (b) Ca_{20} (c) Fe_{26} (d) Cu_{29}

4) Davisson and Germer obtained electrons by heating _____ filament and made them fall on _____ crystal.

- (a) Aluminum, nickel (b) Tungsten, nickel (c) Lead, gold (d) Copper, Chromium

5) Azimuthal quantum number represents:

- (a) Shells (b) Sub-shells (c) Orbitals (d) All

6) The number of electrons in f-subshell is:

- (a) 2 (b) 6 (c) 10 (d) 14

7) Stark and Zeeman effects find explanation in _____ quantum number.

- (a) Principal (b) Magnetic (c) Azimuthal (d) Spin

8) Two electrons in the same orbital should have opposite spin. This is called:

- (a) Self-rotation (b) Hund's rule
(c) Aufbau principle (d) Pauli's exclusion principle

9) Which orbital will be filled earlier by the electrons?

- (a) 4f (b) 5d (c) 6p (d) 7s

Maximum Marks: 16

(SUBJECTIVE TYPE)

Time Allowed: 30 Min.

SECTION-I

Q.2: Give brief answers to the following questions:

(12)

- What is de-Broglie's equation? What is its importance?
- Why can the position and momentum of electron not be calculated precisely?
- Define quantum numbers.
- Why are d-orbitals called five fold degenerate orbitals?
- What is meant by self-rotation of electrons?
- What is Hund's rule?

SECTION-II

NOTE: Attempt All Questions:

(04)

Q.3: What are X-rays? Give the conclusions drawn by Moseley from the study of X-ray spectra.