

CHEMISTRY-11	Chapter#05-Second Half (5.6-5.9) Test-4		
	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:

- When 6d orbital is complete, the entering electron goes into:
 - 7f
 - 7s
 - 7p
 - 7d
- When azimuthal quantum number is '3', then 'm' can have:
 - 5 values
 - 7 values
 - 2 values
 - 3 values
- X-rays are produced when rapidly moving electrons collide with:
 - Heavy metal cathode
 - Heavy metal anode
 - Lighter metal cathode
 - Lighter metal anode
- Mosley used _____ different elements as target in X-rays tube.
 - 28
 - 30
 - 38
 - 45
- The graph between \sqrt{v} of X-rays and Z of the target metal is a:
 - Straight line
 - Parabolic curve
 - Hyperbolic curve
 - Negative slope
- De-Broglie proposed that:
 - Light behaves as material particles.
 - All material particles in motion behave like waves.
 - All material particles at rest also behave like waves.
 - Both 'b' & 'c'
- According to de-Broglie's equation, the wavelength of the wave of proton will be _____ than the wavelength of electron moving with same velocity.
 - 1836 times smaller
 - 1836 times greater
 - 3672 times smaller
 - 3672 times greater
- Heisenberg's uncertainty principle is applicable to:
 - Microscopic particles
 - Macroscopic particles
 - Both micro-& and macroscopic particles
 - Only electrons
- The volume of space in which there is _____ chance of finding an electron is called atomic orbital.
 - 90%
 - 95%
 - 99%
 - 100%
- Magnetic quantum number is also called _____ quantum number.
 - Subsidiary
 - Orientation
 - Geometric
 - None

Maximum Marks: 20

(SUBJECTIVE TYPE)

Time Allowed: 40 Min.

SECTION-I

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

(12)

- i. State Mosley's law. Give its mathematical form.
- ii. Why do we say that the graphs obtained from Mosley's law are straight lines?
- iii. What is Heisenberg's uncertainty principle? Give its mathematical expression.
- iv. Why are p-orbitals called triply fold degenerate orbitals?
- v. What is 'n + ℓ' rule?
- vi. Write electronic configuration of ${}_{53}\text{I}$ and ${}_{79}\text{Au}$.

SECTION-II

NOTE: Attempt All Questions:

(08)

Q.3: Explain dual nature of matter. How was it verified?

Q.4: Write brief notes on: (i) Hund's Rule (ii) Pauli's Exclusion Principle