

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

- Orbitals having same energy are called:
 - Hybrid orbitals
 - Valence orbitals
 - Degenerate orbitals
 - d-orbitals
- $n+l$ value of 6d orbital is:
 - 8
 - 9
 - 10
 - 11
- Which spectral series of X-rays spectrum has shorter wavelength?
 - K-series
 - M-series
 - L-Series
 - S-series
- Mosley's law led to the discovery of many new elements. One of which is:
 - Larger
 - Medium
 - Shorter
 - Unaffected
- Mosley's law led to the discovery of many new elements. One of which is:
 - W
 - Rh
 - Te
 - Both 'b' & 'c'
- Which equation shows wave-particle duality?
 - $E = hv$
 - $E = mc^2$
 - $\lambda = \frac{h}{mv}$
 - $v = \frac{c}{\lambda}$
- Davisson and Germer proved that electrons after falling on nickel crystal undergo:
 - Diffraction
 - Refraction
 - Reflection
 - All
- Fine structure of hydrogen spectrum finds explanation in:
 - Principle quantum number
 - Azimuthal quantum number
 - Magnetic quantum number
 - Spin quantum number
- The letter 'd' in azimuthal quantum number stands for:
 - Dumple shaped
 - Diffused
 - Dwarf
 - Double
- If 'm' value for d-subshell is +2, the orbital is:
 - d_{xy}
 - d_{yz}
 - d_{xz}
 - $d_{x^2-y^2}$
- How many total electrons are in N atom, which have 's' value $+\frac{1}{2}$?
 - 1
 - 7
 - 3
 - 5

Maximum Marks: 20 **(SUBJECTIVE TYPE)** Time Allowed: 40 Min.

SECTION-I

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

- How are X-rays produced?
- What is principal quantum number? Give its significance.
- Define nodal plane.
- Draw the shapes of d-orbitals.
- What is Auf-bau principle?
- Distribute electrons in orbitals of ${}_{12}\text{Mg}$ and ${}_{29}\text{Cu}$.

SECTION-II

NOTE: Attempt All Questions: (08)

Q.3: Write a note on Heisenberg's uncertainty principle.

Q.4: What are quantum numbers? Explain azimuthal quantum number and magnetic quantum number.

