Date Planned : __ / __ / __	Daily Tutorial Sheet - 15	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level - 3	Exact Duration :_____

160. Two electrons occupying the same orbital are distinguished by:

    (A)   Principal quantum number   **(B)**   Magnetic quantum number

    (C)   Azimuthal quantum number   **(D)**   Spin quantum number

*161. Which is/are correct statement?

    (A)   Number of subshell present in M-shell = 3

    (B)   Number of orbitals present in N-shell = 16

    (C) Cu^+ (Z = 29) is paramagnetic

    (D)   Zeeman effect explains splitting of spectral lines in magnetic field

*162. Select the correct statements.

    (A)   the degeneracy of orbitals of a shell in H-like atoms exists only in absence of magnetic field

    (B)   an orbital can be defined by three quantum numbers only

    (C)   the two electrons lying in an orbital can be distinguished by azimuthal quantum number

    (D)   the line spectrum of two elements can never be identical

*163. Which of the following charges can exists on an oil drop?

    (A) 3.2×10^{-19}C   **(B)** 8.3×10^{-19}C   **(C)** 9.6×10^{-19}C   **(D)** 4.8×10^{-19}C.

*164. Select the correct statements.

    (A)   energy of a photon increases with increase in its frequency

    (B)   angular momentum of electron in ground state orbital of element is zero

    (C)   the d-orbitals with two nodal surfaces forming cones is d_{z^2}

    (D)   for an electron $\Delta x.\Delta p \le \dfrac{h}{4\pi}$

*165. Select the correct statements.

    (A)   3d-orbital are more closer to nucleus than 4s-orbital

    (B)   3d-orbital possesses more energy than 4s-orbital

    (C)   3d-orbitals are five fold degenerate in presence of magnetic field

    (D)   the probability for finding electron between two lobes of p-orbitals is zero