

## Weekly Report –(12/10/2024 to 18/10/2024)

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DATE	Concept / Topic Discussed
12/10/2024	<ul style="list-style-type: none"> <li>Spin only Magnetic Moment</li> <li>Relation b/w no.of unpaired electrons &amp; magnetic moment</li> <li>Relation b/w Temperature &amp; magnetic moment</li> <li>Spin cross-over experimens</li> <li>Special cases of magnetic moment for lanthanides</li> <li>Magnetic moment caculation</li> <li>Arranging the complexes based on magnetic moment</li> <li>Experimental &amp; calculated magnetic moment</li> </ul>
13/10/2024	<ul style="list-style-type: none"> <li>Magnetic behavior of chlorophyll &amp; oxy and deoxy-hemoglobin (graph)</li> <li>Spin + Orbital magnetic moment with formula</li> <li>Spin + Orbital magnetic moment calculation</li> <li>Orbital contribution to the magnetic moment</li> <li>Unsymmetrical filling of electrons</li> </ul>
14/10/2024	<ul style="list-style-type: none"> <li>John Tellor Distortion</li> <li>Relation b/w Unsymmetrical filling of electrons &amp; JT Distortion</li> <li>Types of JT Distortion (<math>Z_{out}</math>   <math>Z_{in}</math>   Static   Strong   Dynamic   Weak)</li> <li>Relation b/w ESR &amp; JT Distortion</li> </ul>
15/10/2024	<ul style="list-style-type: none"> <li>Atomic Term symbol</li> <li>Calculating S, L and J for Atomic Term symbol</li> <li>Arranging term symbols on the basis of energy</li> <li>Allowed transition of in Atomic term symbols &amp; Selection rules</li> <li>Listing Probable Atomic Terms symbols</li> </ul>
16/10/2024	<ul style="list-style-type: none"> <li>Molecular Term symbol</li> <li>Calculating S, L and J for Molecular Term symbol</li> <li>Arranging molecular symbols on the basis of energy</li> <li>Allowed transition of in molecular term symbols &amp; selection rules</li> </ul>
17/10/2024	<ul style="list-style-type: none"> <li>Calculating “g” Value</li> <li>LMCT</li> <li>MLCT</li> <li>d-d transition &amp; ligand to ligand charge transition</li> <li>Orbitals involved in Charge transfer</li> </ul>
18/10/2024	<ul style="list-style-type: none"> <li>Microstates (on the basis of electronic configuration &amp; Term Symbol)</li> <li>Calculation Degenaracy in Statistical thermodynamics</li> <li>Reation b/w Microstates &amp; Degenaracy</li> <li>Muliken symbol</li> <li>Orgel diagram</li> <li>Relation b/w Orgel diagram and Tanabe-Sugano diagram</li> </ul>