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| **Sr. No** | **Title of Course with code** | **Topic** | **Sub-topic /**  **Key words** | **Link** |
| 01 | CH-332 Inorganic Chemistry | **Chapter- 1 Molecular Orbital Theory**  Lecture No.1 | Formation of sigma molecular orbitals, Combination of p & p atomic orbitals, Difference between sigma MOs & Pi MOs, Formation of Pi molecular orbital. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/MzcxNzQwMjMxNDky/details> |
|  |  | Lecture No.2 | Formation of Delta molecular orbital, Formation of nonbonding molecular orbital, MO energy level diagram for Homonuclear diatomic molecule of first row elements, H2 molecule. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzQzNjgwMDYw/details> |
|  |  | Lecture No.3 | Formation of Helium molecule, Lithium molecule, Beryllium molecule, Boron molecule. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzQ5MTg2MDI3/details> |
|  |  | Lecture No.4 | Formation of Carbon molecule (C2), Nitrogen molecule, Oxygen molecule, O2+, O2-, O2- - , ion formation their bond order & bond length. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzUwNzEyMDg3/details> |
|  |  | Lecture No.5 | Formation of Fluorine molecule, Neon molecule, Difference in MOs of B2& F2, Formation of HF molecule. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzUwNzU0NDM1/details> |
|  |  | Lecture No.6 | Formation of Nitric oxide molecule, Carbon monoxide molecule, Molecular orbital in heteronuclear triatomic molecules. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzQ5MjA0ODI3/details> |
|  |  | Lecture No.7 | Formation of Pi bonding MOs, Pi antibonding MOs, Pi nonbonding MOs, Carbondioxide molecule, Heteronulear triatomic molecule. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzUxODU3NTU0/details> |
|  |  | Lecture No.8 | Formation of Sigma bonding MOs, Sigma antibonding MOs, Pi MOs in NO2 molecule, Pi antibonding MOs, Nitrogen dioxide molecule. | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzQ4MzYxMjMw/details> |
|  |  | Lecture No.9 | Similarity & difference between valence bond theory & molecular orbital theory | <https://classroom.google.com/c/MTM5MzI4OTYwMTM2/m/Mzc0MzQ3ODg3MTM1/details> |