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| **Sr. No** | **Title of Course with code** | **Topic** | **Sub-topic /****Key words** | **Link** |
| 01 | CH-302 Inorganic Chemistry | **Chapter- 1 Molecular Orbital Theory of Covalent Bonding**Lecture No.1 | Introduction, Limitations of VBT, Need of MOT | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/MzcxNjg0MzE1OTgx/details> |
|  |  | Lecture No.2 | Difference between Atomic orbitals and Molecular orbital, Rules for linear combination of atomic orbitals | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc0MjU0NTQ2OTY1/details> |
|  |  | Lecture No.3 | Formation of bonding and anti-bonding orbitals, Difference between bonding and antibonding molecular orbitals | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/MjI2NDA2NDc5OTc5/details> |
|  |  | Lecture No.4 | Shapes of s, p and d orbitals, Formation of sigma and pi bonds | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/MjI2NDA2MzE3OTI0/details> |
|  |  | Lecture No.5 | Combination p and d atomic orbitals, combination d and d atomic orbital, non-bonding combination of atomic orbitals, MO energy level diagram | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc0MjYwMzQ5NjI5/details> |
|  |  | Lecture No.6 | MO energy level diagram of H2 molecule, MO energy level diagram He2 molecule | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc0MjYwNjU2NDA1/details> |
|  |  | Lecture No.7 | MO energy level diagram for homonuclear diatomic molecules of second row elements, Li2 and Be2 molecule | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc0MjYwODM4NDkw/details> |
|  |  | Lecture No.8 | MO energy level diagram for B2,C2 Molecule | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc0MjQ0MzYzNDIw/details> |
|  |  | Lecture No.9 | MO energy level diagram of N2, O2 molecules | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/MzA1OTYyNjgyOTc4/details> |
|  |  | Lecture No.10 | MO energy level diagram of O2+,O2- ,O2—ions and F2 molecules. | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/MjI2NDA1OTIxMDU0/details> |
|  |  | Lecture No.11 | MO configuration of molecules, MO energy level diagram of Ne2 molecule and HCl molecule. | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc0MjYwNzIwMjA1/details> |
|  |  | Lecture No.12 | MO energy level diagram of HF molecule, nitric oxide molecule. | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/MzcxNjg1OTg2NzQ4/details> |
|  |  | Lecture No.13 | MO energy level diagram of CO (Carbon monoxide) molecule. | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc0MjYxMTE1MTMy/details> |
|  |  | Lecture No. 14 | References | <https://classroom.google.com/c/MTU4ODQ3MzY1NTg2/m/Mzc1OTYzMDk2MzYx/details> |