

## LESSON PLAN- B.Sc 2<sup>nd</sup> SEMESTER

**SUBJECT-** INORGANIC CHEMISTRY

**TEACHER'S NAME-** Dr. ANJU SIWACH

**SESSION- 2023-23**

WEEKS	SYLLABUS
10-01-2023 to 31-01-2023	<b>B.Sc 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup> semester PRACTICAL EXAMINATION</b>
01-02-2023 to 04-02-2023	<b>Hydrogen Bonding</b> Hydrogen Bonding – Definition, Types, effects of hydrogen bonding on properties of substances,
06-02-2023 to 11-02-2023	Application and Brief discussion of various types of Vander Waals Forces
13-02-2023 to 18-02-2023	<b>Metallic Bond and Semiconductors</b> Metallic Bond- Brief introduction to metallic bond, band theory of metallic bond, Semiconductors- Introduction, types and applications. <b>(Assignment + Unit Test)</b>
20-02-2023 to 25-02-2023	<b>s-Block Elements</b> Comparative study of the elements including, diagonal relationships, salient features of hydrides (methods of preparation excluded), solvation and complexation tendencies including their function in biosystems. <b>(Assignment + Unit Test)</b>
27-02-2023 to 04-03-2023	
13-03-2023 to 18-03-2023	
20-03-2023 to 25-03-2023	<b>Chemistry of Noble Gases</b> Chemical properties of the noble gases with emphasis on their low chemical reactivity, chemistry of xenon, structure and bonding of fluorides, oxides & oxyfluorides of xenon. <b>(Assignment + Unit Test)</b>
27-03-2023 to 01-04-2023	
03-04-2023 to 08-04-2023	<b>p-Block Elements</b> Emphasis on comparative study of properties of p-block elements (including diagonal relationship and excluding methods of preparation). <b>Boron family (13<sup>th</sup> group):-</b> Diborane – properties and structure (as an example of electron – deficient compound and multicentre bonding), Borazene – chemical properties and structure Trihalides of Boron – Trends in lewis acid character structure of aluminium (III) chloride.
10-04-2023 to 15-04-2023	

17-04-2023 to 22-04-2023	<p><b>Carbon Family (14th group)</b> Catenation, <math>p\pi-d\pi</math> bonding (an idea), carbides, fluorocarbons, silicates structural aspects), silicon – general methods of preparations, properties and uses.</p>
24-04-2023 to 29-04-2023	<p><b>Nitrogen Family (15th group)</b> Oxides – structures of oxides of N, P. oxyacids – structure and relative acid strengths of oxyacids of Nitrogen and phosphorus. Structure of white, yellow and red phosphorus.</p>
01-05-2023 to 06-05-2023	<p><b>Oxygen Family (16th group)</b> Oxyacids of sulphur – structures and acidic strength <math>H_2O_2</math> – structure, properties and uses.</p>
08-05-2023 to 13-05-2023	<p><b>Halogen Family (17th group)</b> Basic properties of halogen, interhalogens types properties, hydro and oxyacids of chlorine – structure and comparison of acid strength. <b>(Assignment + Unit Test)</b></p>
15-05-2023 to 16-05-2023	Revision
17-05-2023 onwards	MDU examination