

**INORGANIC CHEMISTRY (BS-ADP 6<sup>th</sup> Semester)**

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| <b>Module Code:</b>    | <b>Chem-324</b>                       |
| <b>Module title:</b>   | <b>Inorganic Chemistry Lab</b>        |
| <b>Name of Scheme:</b> | <b>BS-ADP 6<sup>th</sup> Semester</b> |
| <b>Department:</b>     | <b>School of Chemistry</b>            |
| <b>Faculty:</b>        | <b>Science</b>                        |
| <b>Module Type:</b>    | <b>Compulsory</b>                     |
| <b>Module Rating:</b>  | <b>1 credit</b>                       |

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**OBJECTIVES**

The aim of this course is to interpret the concepts for better understanding in inorganic chemistry. This course will familiarize the students to determine the complexometric titrations, Redox titrations and preparations of some compounds.

**SYLLABUS OUTLINE:**

**1 Complexometric Titrations:**

Estimation of  $Mg^{+2}$ , and  $Zn^{+2}$  with EDTA (Direct titration).

Estimation of  $Ni^{+2}$  with EDTA (Back titration).

Determination of  $Ca^{+2}$  and  $Mg^{+2}$  in a mixture

Determination of  $Co^{2+}$  and  $Pb^{+2}$  by using Xylenol Orange Indicator.

**2 Redox Titrations:**

**(a) Iodimetry**

Determine the amount of Iodine dissolved in water using  $Na_2S_2O_3$

**(b) Use of potassium iodate for the determination of the followings:**

i) KI    ii) Copper    iii)  $H_2O_2$     iv) Commercial Hypochlorite

**RECOMMENDED BOOKS:**

1. Vogel, Arthur I. A Text-Book Of Quantitative Inorganic Analysis-Theory And Practice. Longmans, Green And Co.; London; New York; Toronto, 2013.
2. Rabia Rehman and Haq Nawaz Bhatti, "Experimental Inorganic Chemistry", Carvan Book House Lahore in 2015.
3. Haq Nawaz Bhatti and Rabia Rehman "Advanced Experimental Inorganic Chemistry" Carvan Book House Lahore in 2017.
4. Mendham, John. Vogels textbook of quantitative chemical analysis. Pearson Education India, 2006.