

## **Department of Chemistry**

### **ASSIGNMENT-1**

**Course-** M.Sc.

**Sub code-**MC-121

**Sub-**Inorganic Chemistry

**Year-** 1<sup>st</sup> year/2<sup>nd</sup> sem

**Last date of Submission-**12/03/2018

### **Instruction**

- 1) Write the responses to the assignment in your own handwriting.
- 2) Submit the responses to your HOD within the due date.
- 3) Write your name, program and Enrollment nu clearly at the top of the page.

Q1.

- a) Explain Orgel and Tanabe-Sugano diagrams for transition metal complexes.
- b) Describe spectroscopic methods in transition metal complexes.

Q2.

- a) What are metal carbonyls? Explain with examples
- b) Give preparation, structure and important reactions of nitrosyl.

## **Department of Chemistry**

### **ASSIGNMENT-1**

**Course-** M.Sc.

**Sub code-**MC-122

**Sub-**Organic Chemistry

**Year-** 1<sup>st</sup> year/2<sup>nd</sup> sem

**Last date of Submission-**12/03/2018

### **Instruction**

- 1) Write the responses to the assignment in your own handwriting.
- 2) Submit the responses to your HOD within the due date.
- 3) Write your name, program and Enrollment nu clearly at the top of the page.

Q1.

- a) What are aromatic compounds? Explain ortho and para substitution in aromatic rings.
- b) What is substitution reaction? Explain diazonium coupling.

Q2.

- a) Give reaction mechanism of Gattermann-Koch reaction.
- b) Explain concept of leaving group and attacking reagent in nucleophilic substitution reaction.

## ASSIGNMENT-1

Course- M.Sc.

Sub code- MC-123

Sub-Physical Chemistry

Year- Ist year/IIInd sem

Last date of Submission-12/03/2018

Instructions

- 1) Write the responses to the assignment in your own handwriting.
- 2) Submit the responses to your HOD within the due date.
- 3) Write your name, program and Enrolment number clearly at the top of the page.

Q1.

- 1) Give the methods of chemical dynamics determining rate laws.
- 2) What is collision theory? Define and discuss the of steric factors.

Q2.

- a) What is activated complex theory? Give Arrhenius equation activation theory.
- b) What is unimolecular reaction? Explain reaction of hydrogen-bromine.

## ASSIGNMENT-1

Course- M.Sc.

Sub code- 124

Sub- Photochemistry

Year- IIInd Year/IIInd Sem

Last date of Submission-12/03/2018

Instructions

- 1) Write the responses to the assignment in your own handwriting.
- 2) Submit the responses to your HOD within the due date.
- 3) Write your name, program and Enrolment number clearly at the top of the page.

Q1.

- 3) What is quantum yield? Give the photochemical laws in Photochemistry.
- 4) Define and discuss flash photolysis process.

Q2.

- c) Give the photochemical stages of primary and secondary processes..
- d) Give the different between energy radioactive and non-radioactive processes.