



## **Department of Chemistry**

### **ASSIGNMENT-2**

**Course- M.Sc**

**Sub-Inorganic Chemistry**

**Last date of Submission-20/4/2018**

**Sub code-MC-121**

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

### **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 the structure of boron hydride.
- b) What are metalloboranes and metallocarboranes.

Q2.

- a) You know that fission and fusion are two different types of nuclear reaction. Can you differentiate between nuclear fission and nuclear fusion.
- b) Explain the working of nuclear reactor in detail.



## **Department of Chemistry**

### **ASSIGNMENT-2**

**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-**20/4/2018

### **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 free radicals? Explain with examples.
- b) What do you understand by arylation of aromatic compounds?

Q2.

- a) Give reaction mechanism of aldol and benzoin reaction. .
- b) Explain cycloaddition in pericyclic reaction. Give reaction mechanism of Diels-Alder reaction.



## **ASSIGNMENT-2**

Course- M.Sc.

Sub code- MC-123

Sub-Physical Chemistry

Year- Ist year/IIInd Sem

Last date of Submission-20/04/2018

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) What is BET equation? Explain in detail.
- 2) What is Gibbs Equation? Define and discuss Gibbs adsorption isotherm.

Q2.

- 1) What is Macromolecules? Give the molecular mass and mass average.
- 2) Define and discuss light scattering method in detail.



## **ASSIGNMENT-2**

Course- M.Sc.

Sub code- MC-124

Sub- Photo-Chemistry

Year- IstYear/IIInd Sem

Last date of Submission-20/04/2018

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 gas-phase photolysis.

Q2.

- a) Give the properties of excited state in photo-chemistry.
- b) Define and discuss rate constants and life times of reactive molecule.