



## **ASSIGNMENT-1**

**Course-** M.Sc Subject

**code-** MC-112

**Sub-**Organic Chemistry

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

**Last date of Submission-**06/11/2016

### **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 conjugation bond.
- b) Explain the Delocalized chemical bonding.

Q2.

- a) Define and Explain huckel's rule
- ) Explain the Free radical and example.



## ASSIGNMENT-1

Course- M.Sc

Sub code- MC-111

Sub-Inorganic Chemistry

Year- 1st year/1st sem

Last date of Submission-06/11/2016

### 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 Enrollment nu clearly at the top of the page.

### Q1.

a) Explain the following with proper examples

- i) VSEPR Theory
- ii) Hybridization

b) Explain CFT (Crystal Field Theory). What is the application and limitation of CFT.

### Q2.

- a) Explain different type of splitting of d-orbitals with proper examples.
- b) Explain determination and composition of Complex ion.



## **ASSIGNMENT-1**

**Course-M.Sc.Chemistry (Physical )**

**Sub code-MC-113**

**Sub-Physical Chemistry**

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

**Last date of Submission-06/11/2016**

### **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 is  $\Psi$  & E for a particle in a 1D box?
- b)Show the  $\Psi$  1s and 2  $\Psi$ 2s for hydrogen atom.

Q2.

- a)What is degeneracy ? A particle in 3D cubical box of Eigen L has energy  $14h^2/8ml^2$  the degeneracy of state is ?
- b)What is expectation value. ? Calculate the expectation value of  $V$  potential energy for hydrogen atom..



## MONAD UNIVERSITY HAPUR (UP)

Course: MSc. (Chemistry) -1,

Mathematics for chemists

Subject Code: MC-115-1

Assignment No: 1

Due date of submission: 10.11.2016

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 me, and Enrolment No. clearly at the top of the page.

Q.1.

(a) Find grad  $\phi$  when  $\phi$  is given by  $\phi = 3x^2y - y^3z^2$  at the point (1, -2, -1).

(b) Show that if  $\vec{r} = x\hat{i} + y\hat{j} + z\hat{k}$  then  $\text{div}(\vec{r}) = 3$

Q2.

(a) Show that  $A = \begin{bmatrix} i & 0 & 0 \\ 0 & 0 & i \\ 0 & i & 0 \end{bmatrix}$  is a skew-Hermitian.

(b) If  $A = \begin{bmatrix} 2 + i & 3 & -1 + 3i \\ -5 & i & 4 - 2i \end{bmatrix}$ , Find conjugate of A.



## **ASSIGNMENT-1**

**Course-M.Sc**

**Sub code-MC-115-2**

**Sub-Biology for chemists**

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

**Last date of Submission-06/11/2016**

### **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 nu clearly at the top of the page.

Q1.

- a) Give an account of the carbohydrate metabolism in a living system?
- b) .Describe the dicarboxylic acid shuttle of carbohydrate metabolism?

Q2

- a) . How the glucose level of blood is maintained in animal?
- b) Discuss the role of hormone in sugar regulation in the animal body?

Course: Basics of Computer Applications

Assignment No: 1

CODE: M.SC, MC -114

Submission Date: 10 November 2016

Instructions:

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD with in the due date.
3. Write your name ,programme and enrollment number clearly at the top of the Pages

Q.1

- a) What do you mean by programming languages? WriteTypes of Programming Languages in brief?
- b) Define Primary & Secondary Memory?

Q.2

- a) Explain the Block Diagram of Computer in brief?
- b) Define Symbols of Flowchart in brief?