MONAD UNIVERSITY HAPUR (UP)

Programme: B.Sc. [PCM]/B.TECH (CS)
Semester: II

Course: **(SEMICONDUCTOR PHYSICS)**

Course code **BS-121-I**

Assignment No: 1
Due date of submission: 12/03/2019
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, Programme and Enrolment No. clearly at the top of the page.

Q1.

a) As you aware of Electronic materials. Explain the free electron theory.
b) Write short note on :
   (i) Kronig-Penny model
   (ii) semiconductors
   (iii) Fermi level.

Q2.

(a) Explain the photovoltaic effect.
(b) As you are aware of light-semiconductor interaction. Explain the Optical transitions in bulk semiconductors.

MONAD UNIVERSITY HAPUR (UP)

Programme: B.Sc. [PCM]/B.TECH (EE)
Semester: II

Course: **(WAVE OPTICS AND INTRODUCTION TO QUANTUM MECHANICS)**
Course code **BS-121-2**

Assignment No: 1
Due date of submission: 12/03/2019
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, Programme and Enrolment No. clearly at the top of the page.

Q 1

(a) As you are aware of angular momentum. State and Explain the law of conservation of angular momentum.
(b) As you are aware of Collision .Explain elastic and inelastic Collison.

Q2

(a) Discuss combine translation and rotational motion of a rigid body on a horizontal surface.
(b) Derive Time-dependent and time-independent Schrodinger equation for wave function.

Department of Chemistry

ASSIGNMENT-1

Course- B.Sc. (PCM)/ (ZBC) **Sub code-CHE-121**

Sub-Chemistry -II **Year**- 1st year/2nd 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 different types of isomerism in detail with example.

b) What do you mean by optical and geometrical isomerism?

Q2.

a) Explain conformation of butane.

b)Explain S-block and P-block elements with their salient features.

MONAD UNIVERSITY HAPUR (UP)

Programme: **B.Sc. (PCM)**

Semester: **II**

Course: **BS-122 Mathematics –II**

Assignment No: **1**

Due date of submission: **12.03.2019**

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, Programme and Enrolment Number clearly at the top of the page.

Q.1

(a) Solve the following differential equation:

$$\frac{d^3y}{dx^3} + 3\frac{d^2y}{dx^2} + 3\frac{dy}{dx} + y = e^{-x}.$$

(b) Solve the following differential equation:

$$x(x-1)\frac{dy}{dx} - y = x^2(x-1)^2.$$

Q.2

(a) Solve $\frac{d^2y}{dx^2} + (1 - \cot x)\frac{dy}{dx} - y\cot x = \sin^2 x.$

(b) Solve $p = \tan(px - y).$

MONAD UNIVERSITY, HAPUR (UP)

Programme: UG ALL

Semester: II

Course: MC -121 ENVIRONMENTAL SCIENCE

Assignment No: 1

Due date of submission: 12.03.2019

Instructions:

4. Write the responses to the assignment in your own handwriting.
5. Submit the responses to your HOD within the due date.
6. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Q.1

(a) What is environmental science?

(b) What is the role of Air in environment?

Q2.

(a) What are main differences between living and non living organisms?

(b) How we get Vit-D from environment explain it ?