MONAD UNIVERSITY HAPUR (UP)

Programme: **B.Tech**

Semester: **II**

Course: **BS-122 Differential Equations and Integral Transforms**

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 $\frac{d^2y}{dx^2}+¿.$

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

MONAD UNIVERSITY HAPUR (UP)

Programme: **B.Tech**

Semester: **II**

Course: **BS-121 Chemistry**

Assignment No: **1**

Due date of submission: **12.03.2019**

Instructions

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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.

Q1.

a) Explain Schrodinger equation in detail.

b) Explain MOT for O_2 and NO molecule.

Q2.

a) Explain Crystal Field Theory in detail.

b) What do you mean by bond structure of solid.

MONAD UNIVERSITY HAPUR (UP)

Programme: **B.Tech**

Semester: **II**

Course: **BS-121 Programming for Problem Solving**

Assignment No: **1**

Due date of submission: **12.03.2019**

Instructions

1. Write the responses to the assignment in your own handwriting.
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3. Write your Name, Programme and Enrolment Number clearly at the top of the page.

Q1 (a): What is Loop? Explain different types of loop with program.

(b): What is pre-processor? Explain different types of directives.

Q2: (a): What is an Array? And explain type of Array.

(b): What is sorting? And explain difference between sorting and searching.

MONAD UNIVERSITY HAPUR (UP)

Programme: **B.Tech**

Semester: **II**

Course: **BS-121 Physics**

Assignment No: **1**

Due date of submission: **12.03.2019**

Instructions

1. Write the responses to the assignment in your own handwriting.
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3. Write your Name, Programme and Enrolment Number 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.Tech**

Semester: **II**

Course: **MC-121 EVS**

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) : 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 Vitamin-D from environment explain it?