



MONAD UNIVERSITY, HAPUR (UP)

Programme: B.Sc.

Semester: VI

Course: BSCMN-361 LINEAR PROGRAMMING PROBLEMS

Assignment No: 1

Due date of submission: 12.03.18

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

Q.1

- (a) What are the characteristics of L.P.P.? Give some examples of L.P.P.
- (b) Solve the following programming problem by graphical method:

$$\text{Max. } Z = 8x_1 + 7x_2$$

$$\text{s.t. } 3x_1 + x_2 \leq 66000$$

$$x_1 + x_2 \leq 45000$$

$$x_1 \leq 20000$$

$$x_2 \leq 40000$$

$$\text{and } x_1, x_2 \geq 0$$

Q2.

- (a) Solve the above problem by simplex method.
- (b) What is Artificial Variables Technique? Explain briefly.



MONAD UNIVERSITY, HAPUR (UP)

Programme: B.Sc.

Semester: VI

Course: BSCMN-362 NUMERICAL ANALYSIS

Assignment No: 1

Due date of submission: 12.03.18

Instructions:

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Q.1 (a) What are the difference operators and briefly explain their relationships.

(b) Show that $\sum_{k=0}^{n-1} \Delta^2 f_k = \Delta f_n - \Delta f_0$.

Q2. (a) Find the missing terms from the following data:

x:	1	2	3	4	5	6
f(x):	1	?	9	16	?	36

(b) Find the value of $f(2.5)$ from the following data:

x:	1	2	3	4	5	6
f(x):	1	4	9	16	25	36



ASSIGNMENT-1

Course- B.Sc.

Sub code- BSCMN-363

Sub-Organic Chemistry-III

Year- IIIrd year/VIthSem

Last date of Submission-12/03/2018

Instructions

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

Q1.

- 1) Explain difference between polynuclear aromatic compound and heterocyclic compound?
- 2) What is Naphthalene? Give the synthesis reaction of Naphthalene.

Q2.

- a) Give the structure of Anthracene with number. Give some reactions of Anthracene.
- b) Give structure and reaction mechanism of Phenanthrene.



MONAD UNIVERSITY HAPUR (UP)

Programme: B.Sc.

Semester: VI

Course: BSCMN-364 **SOLID STATE AND NUCLEAR PHYSICS**

Assignment No: 1

Due date of submission: 12 Mar 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, Programme and Enrolment No. clearly at the top of the page.

Q1.

- a) What do you mean by Primitive cell and non-primitive cell? Discuss X-ray diffraction in context of structural characterization. Derive the expression of Bragg's law for X-ray diffraction.
- b) Write short note on: (i) BCC. (ii) FCC. (iii) SCC.

Q 2

- a) As you are aware the crystal structure .Explain the NaCl and CsCl structure.
- b) What do you mean by Miller Indices? Explain the significance of the following notations:
(a) (khl) (b) $\{hkl\}$ (c) $[hkl]$ (d) $(hkil)$ or $(hk.l)$



MONAD UNIVERSITY HAPUR (UP)

Programme: B.Sc.

Semester: VI

Course: BSCMN-365 SOLID STATE ELECTRONICS

Assignment No: 1

Due date of submission: 12 Mar 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, Programme and Enrolment No. clearly at the top of the page.

Q1.

- a) As you are aware of LED .Explain the construction and working of LED.
- b) As you are aware of Zener diode. Explain construction and working of a PIN diode.

Q2

- a) How a PN junction act as a rectifier? Explain.
- b) Write short note on:
 - (i) Fermi energy.
 - (ii) Deflection layer.
 - (iii) Tunnel diode.