MONAD UNIVERSITY HAPUR (UP)

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

Semester:**III**

Course:**MTH-211, Linear Algebra and Matrices**

Assignment No: **2**

Due date of submission: **23.10.2017**

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) Define inner product spaces. Prove that $V_2(R)$ is an inner product space, if

$$(\alpha, \beta) = a_1b_1 - a_2b_1 - a_1b_2 + 4a_2b_2,$$

where $\alpha = (a_1, b_1)$ and $\beta = (a_2, b_2)$.

(b) Find the rank of the matrix $\begin{bmatrix} 1 & 5 & 4 \\ 0 & 3 & 2 \\ 2 & 13 & 10 \end{bmatrix}$ by reducing into normal form.

Q.2

(a) Find Eigen values and Eigen vectors of the matrix $\begin{bmatrix} 8 & -6 & 2 \\ -6 & 7 & -4 \\ 2 & -4 & 3 \end{bmatrix}$.

(b) State Cayley-Hamilton theorem. Prove that the matrix $\begin{bmatrix} 4 & 2 & -2 \\ -5 & 3 & 2 \\ -2 & 4 & 1 \end{bmatrix}$ satisfies Cayley-Hamilton theorem.

PHY-211, KINETIC THEORY AND THERMODYNAMICS

Assignment: 02

Due date of submission: 23/10/2017

Instructions:

1. Write the response to the assignment in your own handwritings.
2. Submit the response to your H.O.D. within the due date.
3. Write your name, program and enrollment no. clearly at the top of the page.

Q1 (a) Explain first law of thermodynamics. What are its limitations?

Q1 (b). Obtain expression for the work done in an adiabatic process.

Q2 (a). Explain the application of Maxwell's thermodynamic relation to Adiabatic cooling.

Q2 (b).Explain principles of:

(i) Cascade cooling.
(ii) Regenerative cooling.

Department of Chemistry

ASSIGNMENT-2

Course- B.Sc(PCM)/(ZBC) /(Hons) **Sub code-CHE-211**

Sub-Inorganic Chemistry **Year**- IInd year/IIIrdsem

Last date of Submission-23/10/2017

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 non aqueous solvent ,explain with examples.

b) What is solvation and solvolysis, explain with example. .

Q2.

a)Explain the properties of liquid ammonia as non aqueous solvent..

b)Explainthe amphoteric behavior of liquid SO_2.

Department of Chemistry

ASSIGNMENT-2

Course- B.Sc(PCM)/(ZBC) /(Hons) **Sub code-CHE-212**

Sub-Physical Chemistry **Year**-IInd year/IIIrdsem

Last date of Submission-23/10/2017

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) Derive and explain Kirchhoff's equation .

b)Define &explain Law of mass action.

Q2.

a)Explain Le Chatelierprinciple..

b)What is heat of neutralization, Explain.

Assignment Number: 1I
Course code: BBA-214
Class: BBA –III/ BSCIII/B.COM
Title-Introduction of GST
Last Dates for Submission: 23th October, 2017

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.

Write your Name, Programme, and Enrolment No. clearly at the top of the page

Question:-1

(a) How can you apply for GST Number?
(b) How many returns of GST are needed in single financial for company?

Question;-2

(a) Why GST is not covering all goods and services?

(b)- What are objectives of GST?