PANDU COLLEGE CHEMISTRY DEPARTMENT

PANDU,GUWAHATI-78101,
ASSAM

Dr.Manoj Sarma,
Associate Professor.

Dr.Gitali Baruah,
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Notice

This is for information of all the 6th Semester students (Chemistry Honors) an add-on certificate course will be conducted by the Department of Chemistry from 1st February 2024 on Green Chemistry Practices. All the students are requested to pay Rs 50 as a fee of Add-on Course.

28/1/24

Principal
PANDU COLLEGE, PANDU
Guwahati-12, Assam

Green chemistry practices.
Date - 17/02/2024.

Signature of Teacher — Gitali Barman.

Signatures of students -
1. Ankurjyoti Thakuria
2. Dhanjit Das
3. Kaushik Das
4. Dipankar Kakati
5. Leena Nath
6. Sehal Chakraborty
7. Dhanithi Sankar
8. Seema Bora
9. Irfan Ahmed
10. Kakali Nath
11. Mitali Nath

Green chemist

Date - 19/02/2024

Signature Of the Teacher -

Signature of Students -

(i) Seema Bora
(ii) Nehal Chakraborty
(iii) Jufam Ahmed.
(iv) Leena Nath
(v) Mitali Nath
(vi) Kakali Nath
(vii) Dhanitri Sankar
(viii) Dhanjit Das
(ix) Kanchi Barbarwah
(x) Parismita Basumatary
(xi) Ankurjyoti Thakuria
(xii) Kaushik Das

Question Paper (MM=30)

Add-on course: Green Practices

Give one example of the followings: (i) Green solvent (ii) Auxillary substance (iii) Catalytic reagent (iv) Solvent free reaction (v) Ionic liquid (vi) Phase transfer catalyst (vii) Microwave assisted reaction
1x7=7

Your answer

Fill in the blanks with appropriate words
(i) Rearrangement reactions are _____ % atom economical.
(ii) _____ is an example of a green solvent.
(iii) Sonication uses _____ energy.
(iv) _____ is a non-renewable feedstock.
(v) VOC stands for_____.
1x5=5

Your answer

What is green chemistry? Give any two goals of green chemistry.
1+2=3

Your answer

Write twelve principles of the green chemistry. Briefly explain any two with suitable example.
5+3=8

Your answer

List any four limitations/obstacles in the pursuit of green chemistry.
4

Your answer

A desirable green solvent should be

- ○ Costly
- ○ Toxic
- ○ Readily available
- ○ Synthetic

Green Chemistry practices

Unit 1. 15 lectures

Design an ideal green experiment in a chemistry laboratory, different types of green solvents and its uses in sample preparation in analytical chemistry. kolakhar, ionic solvents, advantages of green solvents, Kolakhar and its spectroscopic investigation.

Green catalyst.Rice straw ash and its catalytic activity. Spectroscopic analysis of Rice straw ash.

Unit 2.

Labwork 15 lectures

- Preparation of kolakhar and its spectroscopic analysis.
- Reactions using ionic solvents as green solvent.
- Preparation of rice straw ash and spectroscopic analysis.

Gitali Barnah
HOD, chemistry department.