



SCHOOL OF PHARMACY
CIRCULAR



SCHOOL OF PHARMACY
CIRCULAR

No: AJU/SP/174/22

Date 21.12.2022

It is hereby notified that a 30 hours Short Term Certification Course on "Basic Extraction Methods and Standardisation of Herbal Drugs" will be conducted from 9th January 2023-14th Feb 2023. Registered candidates herewith notified to attend the course without failing. Coordinators need to submit the evaluated assessment papers by 20th February 2023.

ANNEXURE-1- Course Content


Dean
School of Pharmacy
ARKA JAIN University Jharkhand

Dean

School of Pharmacy

Copy to

Vice Chancellor
Office of the Registrar
IQAC
In-charge ERP Coordinator
ERP In-charge
Website In-charge
Office file
Student Whatsapp group



ANNEXURE-1

Day	Date	Session to be instructed
1	9 th Jan 2023	Discussion on basic Extraction methods
2	10 th Jan 2023	Demonstration on Soxhlation process
3	11 th Jan 2023	Demonstration on Reflux Extraction process
4	12 th Jan 2023	Demonstration on Cold Maceration Extraction method
5	13 th Jan 2023	Demonstration on Spray Drying of liquid extract
6	16 th Jan 2023	Discussion on different Identification test for Carbohydrates
7	17 th Jan 2023	Discussion on different Identification test for Alkaloids
8	18 th Jan 2023	Discussion on different Identification test for Tannins
9	19 th Jan 2023	Discussion on different Identification test for Volatile oils
10	20 th Jan 2023	Discussion on different Identification test for Glycosides
11	21 st Jan 2023	Discussion on different Identification test for Proteins and Amino acids
12	23 rd Jan 2023	Demonstration on Molisch's test
13	24 th Jan 2023	Demonstration on Mayer's and Hager's test
14	25 th Jan 2023	Demonstration on Dragendorff's test and Wagner's test
15	27 th Jan 2023	Demonstration on Goldbeater's Skin test
16	28 th Jan 2023	Demonstration on Identification test for Volatile oils
17	30 th Jan 2023	Demonstration on Bontrager's test
18	31 st Jan 2023	Demonstration on Bromine test, Borax test and Cupraloin test
19	1 st Feb 2023	Demonstration on Miller's test, Biuret test and Ninhydrin test
20	2 nd Feb 2023	Demonstration on detection of Fixed oils and Fats
21	3 rd Feb 2023	Discussion on Physical Evaluation of Crude drug
22	4 th Feb 2023	Demonstration on determination of Moisture content and Viscosity
23	6 th Feb 2023	Demonstration on determination of Ash content and Extractives
24	7 th Feb 2023	Demonstration on determination of Optical rotation and Refractive Index
25	8 th Feb 2023	Discussion on Morphological and Organoleptic Evaluation
26	9 th Feb 2023	Discussion on Microscopic Evaluation
27	10 th Feb 2023	Demonstration on determination of Palisade ratio and Vein-islet number
28	11 th Feb 2023	Demonstration on determination of Stomatal Index
29	13 th Feb 2023	Demonstration on determination of Stomata number and Vein termination number
30	14 th Feb 2023	Demonstration on Lycopodium spore method for percentage purity
31	15 th Feb 2023	Assessment



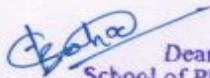
SCHOOL OF PHARMACY
CIRCULAR

No: AJU/SP/175/22

Date 21.12.2022

It is hereby notified that following is the schedule for the assessment of 30-Hour Short Term Certification Course on "Basic Extraction Methods and Standardisation of Herbal Drugs":

Assessment Date:	15-02-2023
Time:	4:30-6:00 PM
Mode:	Offline
Venue:	AJU Campus


Dean
School of Pharmacy
ARKA JAIN University Jharkhand
Dean

School of Pharmacy

Copy to

Vice Chancellor
Office of the Registrar
IQAC
In-charge ERP Coordinator
ERP In-charge
Website In-charge
Office file
Student Whatsapp group

REGISTERED CANDIDATES

Sl. No.	Name of Candidate	Enrolment Number
1	Miss Srishti Shreya	210204
2	Sumant Thakur	210340
3	Miss Anjali Gupta	190176
4	Miss Shalini Mohakud	210814
5	Suman Mahapatrra	210498
6	Vikrant Kumar	210414
7	Vaishnavi Gupta	190393
8	Chetna Sandilya	210910

Report on– 30 Hours Certification Course on
“Basic Extraction Methods and Standardisation of Herbal Drugs”
Held from (9th January 2023-14th Feb 2023)

Date of Event	09.01.2023-14th Feb 2023
Name of the Event	Basic Extraction Methods and Standardisation of Herbal Drugs (30 Hours Certification Course)
Type of the Event	Slow Learner/ Advance Learner (2.2.1)
Conducted by	School of Pharmacy
No. Of Participant	07

OBJECTIVE: The medicinal plants are important source for pharmaceutical manufacturing. Medicinal plants & herbal medicines account for a significant percentage of the pharmaceutical market. As the side effects of Synthetic medicine have started getting more apparent, majority of formulation are prepared from herbs. The herbal medicines however, suffer from lack of standardization parameters. The main limitation is the lack of standardization of raw materials, of processing methods and of the final products, dosage formulation, and the non- existence of criteria for quality control. It is necessary to introduce measures on the regulation of herbal medicines to ensure quality, safety, efficacy of herbal medicines by using modern techniques, applying suitable standards & GMP.

DETAILS: Standardization guarantees the content of one or more active constituents and marker compounds. The plant environment and genetic factors could significantly affect the biochemical components of the plant extract, in which plants are still the most abundant and cost-effective resource for drug innovation. Basic extraction procedures are used for crude drugs only to obtain therapeutically useful components and to remove inert components by treating them with a selective solvent known as menstrum. Various methods of extraction in pharmacognosy are Maceration, Percolation, Decoction, Reflux extraction, Soxhlet extraction *etc.* To develop the expertise among the students a value added course was started by the School of Pharmacy from 9th January 2023. The course was jointly instructed by Dr. Jyotirmaya Sahoo (Professor and Dean of School of Pharmacy), Mr. Alok Kumar Moharana and Mr. Sumanta Sen (Associate Professor). Various theoretical and practical aspects relevant to the topic was discussed and performed during the conduction of the course. Finally the assessment was conducted. Successful candidates were provided with certificates of successful completion.

On completion of the course students able to learn about authentication of herbal drug, identification of crude drugs by different methods as inadequate availability of the crude drugs encourage dishonest practice for commercial benefit, different methods of extraction of crude drugs as now a days herbal drugs gain their popularity day by day for their less or minimum toxic effect.

MINUTE OF MEETING

Agenda 1: Welcome by Dr. Jyotirmaya Sahoo, Dean of School of Pharmacy

Discussion: Dr. Jyotirmaya Sahoo, Dean of School of Pharmacy welcome all the members present with the meeting.

Agenda 2: Title of the STCC and schemes for assessment.

Discussion: Keeping the importance of Herbal drugs and their formulations in view the title of the STCC is decided to keep as Basic Extraction Methods and Standardisation of Herbal Drugs. The course will be of 30 days (30 hours). Curriculum designing will be done by course developer with assignments and assessments. The schemes for assessment will be as one Assignment of 10 marks, Viva of 10 marks, Attendance of 5 marks, and one assessment of 50 marks. Total marks will be of 75 marks. Assessment is of 1.5 hour in offline mode and pass mark will be 38.

Agenda 3: Scheduling and Permission from Vice Chancellor

Discussion: It is decided to schedule the course from 9th January 2023. Notice need to be circulated among the students and faculty members after the approval of Vice Chancellor of the University. However, keeping the University activities on view if date need to be revised then on immediate effect notice need to be circulated. Information in this regard, needs to be intimated to the Member Secretary of BOS for the approval/ ratification.

Agenda 4: Budget planning

Discussion: It is decided to register the course by the interested candidates by paying an amount of only 100.00 rupees.

Agenda 5: Information to students

Discussion: Students and staffs to be informed through their whatsapp group, website notice board to participate the STCC. All participants need to attend the course with their uniform and lab coat whenever necessary.

Agenda 6: Promotion

Discussion: Posters and brochure need to be designed by University designers and circulated as well as need to be uploaded with the website. Photographs will be with geo tag.

Agenda 7: Report preparation and submission to In-charge Website and official documentation and Press Release

Discussion: Report to be prepared and submitted to In-charge Website immediate after completion of the course and also need to be submitted with key highlights and monthly NAAC report to IQAC.

Agenda 8: Record the report by the Website update & Press and Media Committee of School of Pharmacy

Discussion: The report need to be recorded with the School of Pharmacy. The Meeting for the Short Term Certification Course was closed with vote of thanks to the present members.

OUTCOMES:

- Able to develop the basic understanding about the various extraction methods of herbal drugs.
- Able to identify of the secondary metabolites.
- Able to detect the impurities in the crude drugs by physical identification tests.
- Able to gone for microscopic evaluation of the herbal drugs.



Poster of the Event

School of Pharmacy
ARKA JAIN UNIVERSITY,
JHARKHAND

CONDUCTS
30 HOURS VALUE ADDED COURSE

**BASIC EXTRACTION METHODS
& STANDARDISATION OF
HERBAL DRUGS**

9th Jan - 14th Feb, 2023

Venue : SUSHRUTA

INSTRUCTORS

Professor Dr. Jyotirmaya Sahoo, Dean
School of Pharmacy, ARKA JAIN University.

Mr. Sumanta Sen, Associate Professor,
School of Pharmacy, ARKA JAIN University.

Mr. Alok Kumar Moharana, Associate Professor,
School of Pharmacy, ARKA JAIN University.

www.arkajainuniversity.ac.in

Toll Free : 1800-1200-200



ARKA JAIN
University
Jharkhand (Jamshedpur)



BROCHURE

Course Content

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ARKA JAIN
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Jharkhand



School of Pharmacy
ARKA JAIN UNIVERSITY
JHARKHAND
CONDUCTS

30 HOURS VALUE ADDED COURSE

**BASIC EXTRACTION METHODS
& STANDARDISATION OF
HERBAL DRUGS**

9th January - 14th February, 2023

Resource Person

Professor Dr. Jyotirmaya Sahoo
Dean School of Pharmacy, ARKA JAIN University
Mr. Sumanta Sen
Associate Professor, School of Pharmacy, ARKA JAIN University
Mr. Alok Kumar Moharana
Associate Professor, School of Pharmacy, ARKA JAIN University

Course Developer

Professor Dr. Jyotirmaya Sahoo
Dean School of Pharmacy, ARKA JAIN University
Mr. Sumanta Sen
Associate Professor, School of Pharmacy, ARKA JAIN University
Mr. Alok Kumar Moharana
Associate Professor, School of Pharmacy, ARKA JAIN University

Course Duration

30 Days (30 Hours)
Time: 4:30 pm - 5:30 pm

Commencement Date

From 9th January 2023

Who Can Apply?

Students with Pharmacy background or pursuing Pharmacy

Process of Enrolment and Certification

- Interested candidates can fill the registration from through the link provided below.
- **Registration Link** : <https://forms.gle/aQ2ENL4eZRbMA1Ah8>
- Registration Charges: Rs.100 (Please send the payment through online payment using Google pay, Phone pay)
- Payment Link is available with the registration form
- Last date of Registration: 5 th January 2023.
- The selected students will attend the thirty days course in which attendance is mandatory for all the thirty days and also Assignments and assessments for getting the Certificate.

About The Course:

The use of herbal drugs as medicine is the ancient form of health care known to delicacy and it is used in all cultures throughout history. The primeval persons learned by trial and error basis to identified beneficial plants. The identification of purely active moiety is an important requirement for Quality control and dose determination of plant related drugs. Standardization of herbal drugs means confirmation of its identity, Quality and purity. The present overview covers the standardization parameters with their standards value of the some herbal drugs.

The learning Objective of the Course:

The medicinal plants are important source for pharmaceutical manufacturing. Medicinal plants & herbal medicines account for a significant percentage of the pharmaceutical market. As the side effects of Synthetic medicine have started getting more apparent, majority of formulation are prepared from herbs. The herbal medicines however, suffer from lack of standardization parameters. The main limitation is the lack of standardization of raw materials, of processing methods and of the final products, dosage formulation, and the non-existence of criteria for quality control. It is necessary to introduce measures on the regulation of herbal medicines to ensure quality, safety, efficacy of herbal medicines by using modern techniques, applying suitable standards & GMP.

By the end of the course, participants may be able to:

- Develop the basic understanding about the various extraction methods of herbal drugs.
- Methods of identification of secondary metabolites.
- Methods of detection of impurities in the crude drugs by physical identification tests.
- Methods of detection of impurities in the crude drugs by microscopic evaluation methods.



Photos of the Event



Orientation on “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Students and Instructors during the orientation of “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Dr. Jyotirmaya Sahoo is demonstrating to the students “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Removal of unwanted parts before cutting the thin section “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Plant Histology by Dr. Jyotirmaya Sahoo during conduction of “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Staining of the cut section an important step prior to mounting, during conduction of “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Mounting of thin section to the slide for Microscopical Studies during conduction of “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Ready for observation with the Microscope, during conduction of "Basic Extraction Methods and Standardisation of Herbal Drugs" (30 Hours Certification Course)



Finally mounted with the Microscope, during conduction of "Basic Extraction Methods and Standardisation of Herbal Drugs" (30 Hours Certification Course)



Before conformation a final observation, during conduction of “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Explaining the Importance of Projection Microscope, during conduction of “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



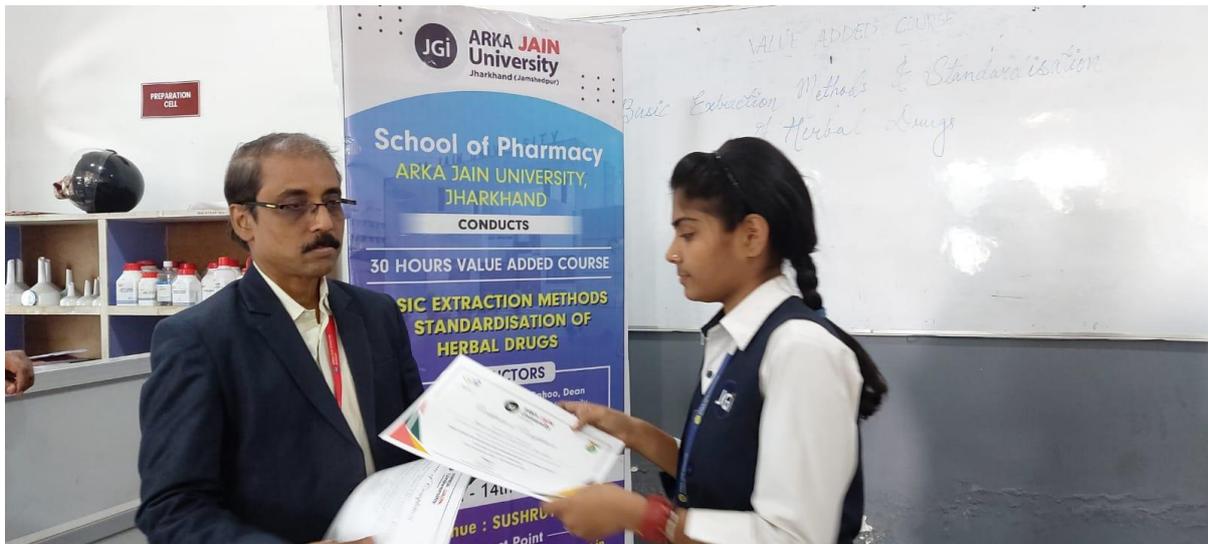
Explaining the Soxhlation, during conduction of “Basic Extraction Methods and Standardisation of Herbal Drugs” (30 Hours Certification Course)



Conducting Assesment



Conducting Viva



Distribution of Certificate



Participants Awarded with Certificates

STUDENTS' ATTENDANCE

Attendance Sheet : BASIC EXTRACTION METHODS AND STANDARDIZATION OF HERBAL DRUGS								
Course Code:			Date: (DD/MM/YYYY)			9th Jan 2023	10th Jan 2023	11th Jan 2023
			Month:					
			Subject:					
S. No.	Enrollment No.	Semester	Name of the Student	Total Class Attended	Attendance %	1	2	3
1	ASU/210204	3 rd sem	Suishti Sharma	30	100%	Suishti	Suishti	Suishti
2	AJ/210414	3 rd sem	Vikrant Kumar	30	100%	Vikrant	Vikrant	Vikrant
3	AJ/210438	3 rd sem	Suman Malaparker	30	100%	Suman	Suman	Suman
4	AJU/210814	3 rd Sem	Shalini Mahapatra	30	100%	Shalini	Shalini	Shalini
5	AJU/190146	8 th Sem	Arijali Gupta	30	100%	Arijali	Arijali	Arijali
6	AJU/210240	3 rd Sem	Sumanth Thakur	30	100%	Sumanth	Sumanth	Sumanth
7	110/170373	3 rd SEM	Yashika Gupta	00	0%	Ab	Ab	Ab
8								
9	AJU/210910	2 nd sem	Chetna Sardilya	30	100%	Chetna	Chetna	Chetna
Signature						<i>Chetna Sardilya</i>	<i>Chetna Sardilya</i>	<i>Chetna Sardilya</i>
Faculty						Dr J Sahoo	Dr J Sahoo	Dr J Sahoo





12th Jan 2023	13th Jan 2023	16th Jan 2023	17th Jan 2023	18th Jan 2023	19th Jan 2023	20th Jan 2023	21st Jan 2023	23rd Jan 2023	24th Jan 2023	25th Jan 2023	27th Jan 2023	28th Jan 2023	30th Jan 2023
January_February Month Attendance													
BASIC EXTRACTION METHODS AND STANDARDS													
4	5	6	7	8	9	10	11	12	13	14	15	16	17
Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti
Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant
Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini
Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant
Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab
Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna
Dr J Sahoo	Dr J Sahoo	Dr J Sahoo	Dr J Sahoo	Dr J Sahoo	Dr J Sahoo	Dr J Sahoo	Dr J Sahoo	Dr J Sahoo	Mr Sumanta				



31st Jan 2023	1st Feb 2023	2nd Feb 2023	3rd Feb 2023	4th Feb 2023	6th Feb 2023	7th Feb 2023	8th Feb 2023	9th Feb 2023	10th Feb 2023	11th Feb 2023	13th Feb 2023	14th Feb 2023	15th Feb 2023 (Assessment)
RDIZATION OF HERBAL DRUGS													
18	19	20	21	22	23	24	25	26	27	28	29	30	31
Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti	Swishti
Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant	Vikrant
Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini	Shalini
Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant	Sumant
Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab	Ab
Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna	Chetna
Mr Sumanta	Mr Sumanta	Mr Sumanta	Mr Sumanta	Mr Sumanta	Mr Alok K Moharana								





RESULTS



ARKA JAIN
University
Jharkhand

SCHOOL OF PHARMACY

“Basic Extraction Methods and Standardisation of Herbal Drugs”
9th January 2023-14th Feb 2023
30 Hours Certification Course

RESULTS

Sl. No.	Name of Student	Enrolment No.	Assessment (50)	Assignment (10)	Viva (10)	Attendance (5)	Total Marks Obtained
1	Miss Srishti Shreya	210204	42	08	08	05	63
2	Sumant Thakur	210340	45	08	08	05	66
3	Miss Anjali Gupta	190176	48	09	09	05	71
4	Miss Shalini Mohakud	210814	40	06	07	05	58
5	Suman Mahapatra	210498	43	05	06	05	59
6	Vikrant Kumar	210414	46	05	06	05	62
7	Miss Vaishnavi Gupta	190393	Ab	Ab	Ab	Ab	-
8	Miss Chetna Sandilya	210910	45	06	04	05	60

Dr. Jyotirmaya Sahoo

Mr. Sumanta Sen

Mr. Alok Kumar Moharana





FEEDBACK ANALYSIS



ARKA JAIN
University
Jharkhand

SCHOOL OF PHARMACY

“Basic Extraction Methods and Standardisation of Herbal Drugs”

9th January 2023-14th Feb 2023

30 Hours Certification Course

FEEDBACK

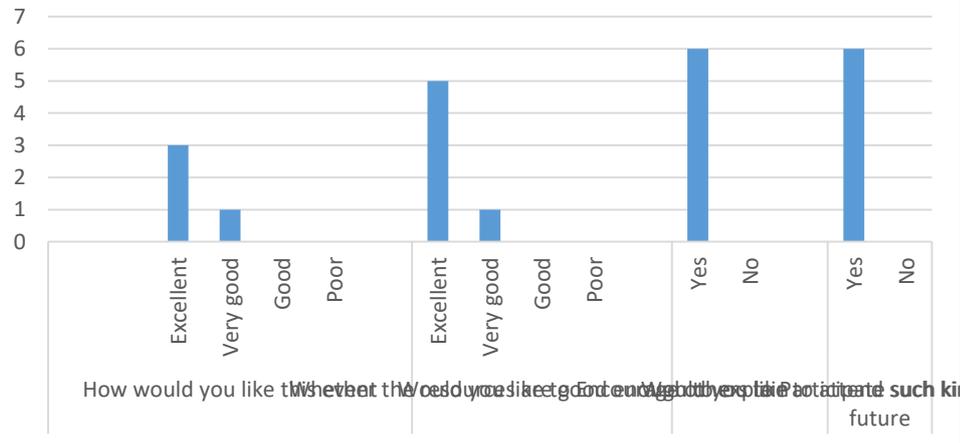
Sl. No.	Name of Candidate	Enrolment Number	How Would you like this Course (E/G/V/P)	Whether the resources are good enough to explain (E/G/V/P)	Would you like to Encourage others to Participate such kind of Sessions (Y/N)	Would you like to attend such kind of Sessions in future (Y/N)
1	Miss Srishti Shreya	210204	E	E	Y	Y
2	Sumant Thakur	210340	V	E	Y	Y
3	Miss Anjali Gupta	190176	E	E	Y	Y
4	Miss Shalini Mohakud	210814	E	E	Y	Y
5	Suman Mahapatra	210498	Y	V	Y	Y
6	Vikrant Kumar	210414	E	E	Y	Y
7	Chetna Sandilya	210910	E	E	Y	Y

E=Excellent, G=Good, V=Very good, P=Poor, Y=Yes, N=No

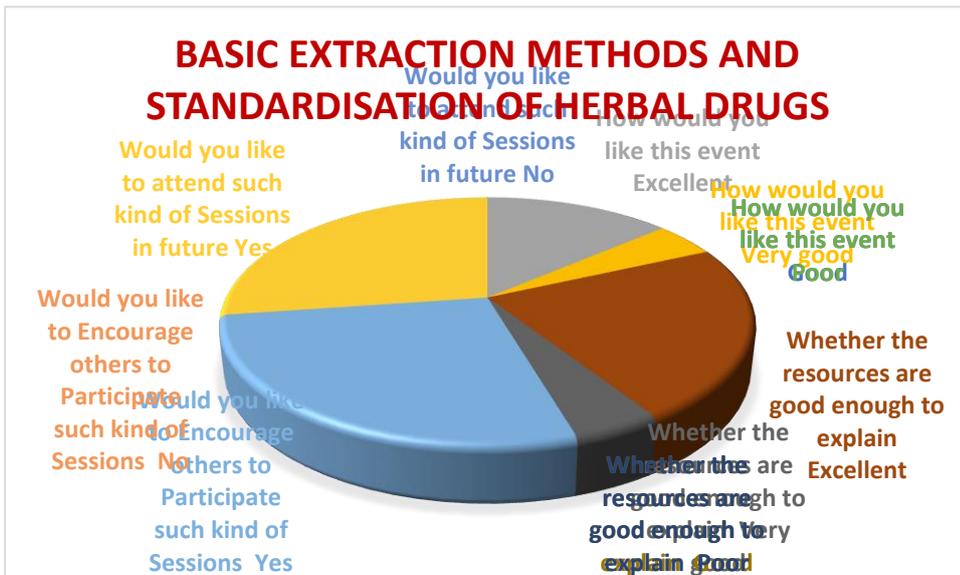


Feedback Collected by Mr. Sumanta Sen

Basic Extraction Methods and Standardisation of Herbal Drugs



BASIC EXTRACTION METHODS AND STANDARDISATION OF HERBAL DRUGS



CERTIFICATES AWARDED

