



## NARAJOLE RAJ COLLEGE

NAAC Accredited 'B' Grade Govt.-Aided College Affiliated by Vidyasagar University



ADD-ON COURSE ON

# ARCHIVAL Research Inaugural Ceremony

SMART AUDITORIUM: 22.05.2023

**Chief Patron:** 

Dr. Ranajit Kumar Khalua, Vice Principal

**Course Co-ordinator:** 

Dr. Mangal Kumar Nayak
Assistant Professor & HOD

Baisali Guha
Associate Professor

Organized by

**Department of History** 

Under the guidance of IQAC, Narajole Raj College

9715010

Time of the course: May to June 23

### Objective of the Course:

- 1. An approach towards Collecting Documents.
- 2. Enhancing document preservation skills.
- 3. Enhancing knowledgeabout the importance of Archival sources in History.
- 4. Improving mathodological techniques by gathering experience.

# 15 oH 24

### Learning Outcome:

#### After completion of the course:

- 1. Students may develop a better knowledge towards Collecting Documents.
- 2. Document preservation skill will be enhanced.
- 3. Knowledge about the Archival sources will be enhanced.
- 4. Students may be more comfortable about research work in future.

#### Syllabus of Archival Research Course

#### Part A: Basic Theory 1. What is archive? 1lecture 1lecture 2. History of development of archive Part B: Understanding about Archival sources 1. Preservation of Archival sources. 2lecture 2. Policies of Collection of sources. 2lecture 3. Process of Documentation. 3lecture 4. Process Digital Documentation. 2lecture 5. Process of collection. 2lecture Part C: History Archives 1. Relation between History and Archives. 2lecture 2. Necessity of Archival Source in historical research. 2lecture 2lecture Discussion about West Bengal State Archives. 4. Discussion about National Archives. 2lecture

5. Different type of archives

3lecture

#### Part D : Skill Development Classes on

1. Archival Documents. 3lecture

2. Critical Appreciation. 3lecture

# Eligibility:

All the graduating students of the college may join in this course.

# Seat Capacity:

Maximum Thirty (30) students will be accommodated in a batch.

## Schedule:

The course will be offered twice in a year following the academic calendar of odd and even semesters. Thirty two (32) contact hours will be given for the completion of the course. The theory and practical classes will be arranged beyond our regular teaching time i.e, before 10:00 a.m. or after 5:00 p.m. If required department mein arrange virtual classes for the convenience of the students.

# Registration / Application:

Student's main gate application from India parent department and admission of the course will be done on first come first basis.

### Evaluation and Certification

Evaluation of the students will be done through home assignments and examination. Students have to score at least 50% in their examinations for getting their certificates.

# Fee Payment :

No application fee / course fee will be charged by the college for this course. Students have to pay a nominal charge of Rs 100.00 for their certificates only.



## About the College & Department:

Narajole Raj College, one of the oldest colleges in old Medinipur district, established in Spptember, 1966, is a wonderful phenomenon in the educational scenario of Midnapore district. At a time when the darkness was prevailing all around and ignorance was rampant in the region, the Narajole Raj College appeared with a bacom of learning in the society. It ushered a new path of higher education. It fulfilled the long cherished dreams and necessities of the young generation.

The higher secondary course in arts with subjects' combination of Bengali, English, Sanskrit, Political Science & History was first introduced in 1979. At first, the course was taught at old building i.e., "RAJ BHAWAN" and now at new building from July 2006, onwards.

Department of History in Narajole Raj Cillege started from 1966. General course was running from the biggning of the college. The Honours course started from the year 1991.

From the very beggning Department of History in Narajole Raj Cillege established in "RAJ BHAWAN" which itself had a historical background. The department maintained a good student - Teacher relationship from the past and also carried out this tradition still today.

Presently department have Six (06) faculties. The result of the department is very much satisfactory. Department have a departmental library of its own. The department maintains a cordial relation with its students and Alumni and vice versa to make the department as their second family.

### About the Department of IQAC:

NAAC established the Internal Quality Assurance Cell (IQAC) with the objective of improving and sustaining quality within colleges. The IQAC's primary responsibility is to create a mechanism for conscious, consistent, and catalytic improvement in the college's overall performance. The Add-on Course (AOC) is a Narajole Raj College project that will be offered as a Certificate Course by various academic departments to enhance skill development among students. Add-on Courses determine the relevance of a specific topic area for the target population and attempt to incorporate current trends in industry and academics for the benefit of students.



# Information about the faculties involved with this course

# NAME

# **DESIGNATION:**



Dr. Mangal Kumar Nayak, M.A, M.Phil, Ph.D Assistant Professor & HOD
Department of History
Teaching experience of 17 Years
nayakhistory2011@gmail.com
9800646713





Baisali Guha, M.A, M. Phil Associate Professor Teaching experience of 17 Years <u>baisali@narajolerajcollege.ac.in</u> 8167265580



Uttam Chakraborty, M.A
State Aided College Teacher
Teaching experience of 28 Years
uttam@narajolerajcollege.ac.in
9735578790



Bilash Samanta, M.A, B. Ed State Aided College Teacher Teaching experience of 13 Years bilash@narajolerajcollege.ac.in 8637585770



Dr. Bhakti Pada Jana, M.A, B. Ed, Ph.D State Aided College Teacher Teaching experience of 10 Years <a href="mailto:bhakti@narajolerajcollege.ac.in">bhakti@narajolerajcollege.ac.in</a> 7797231540



Nimai Sannyasi, M.A, B. Ed State Aided College Teacher Teaching experience of 9 Years <u>nimai@narajolerajcollege.ac.in</u> 9932238541



Subrata Das, M.A, M. Phil State Aided College Teacher Garhbeta College & Research Fellow Department of History University of Calcutta Teaching experience of 8 Years Subratadas963@gmail.com 9614937715

#### Add-on Course on: Archival Research"

**Report:** Add-on Course on: Archival Research" certificate course has been launched by Department of History, Najole Raj College. The inauguration of Add-on Course on Archival Research was held on 22.05. 2023. The courses will be offered in the month of May & June 2023. Dr. Ranajit Kumar Khalua, Vice Principal of Narajole Raj College inaugurated the programme and Dr. Nilanjana Bhattacharya, Dr. Tanuka Acharjee Dr. Rajarshri Debnath and Pragna Paramita Mondal, IQAC Coordinator present on this occasion and motivated the students and course participants with their words.

Dr. Mangal Kumar Nayak & Prof. Baisali Guha joint coordinator of the course and conducted the programme with the help of faculties of the Dept. of History - Sri Uttam Chakraborty, Sri Bilash Samanta, Dr. Bhakti Pada Jana and Mr. Nimai Sannyasi.

In this practical class was held on 09.06.23, students are shown to experience royal architecture, construction techniques and traditions. Head of Department Dr. Mangal Kumar Nayak and Prof. Baisali Guha presented it to the students. Shri Debashish Bhattacharya, author of "Narjole Ek Ananya Janapada" was present at Hawa Mahal on the invitation of the department. Sincere respect and gratitude to him

30 students were enrolled in this course. All students passed the exam. A Valedictory session was held 03.07.23 to award certificate to the students. Principal Sir Dr. Basudev Mondal, Narajole Raj College, presided over the session. Vice Principal and course coordinator Prof. Baisali Guha and our faculty members were also present this programme.

Departmental head Dr. Mangal Kumar Nayak vote of thanks on the occasion.









# NARAJOLE RAJ COLLEGE



(NAAC Accredited 'B' Grade Govt. Aided College)

Affiliated by Vidyasagar University

Value Added Course on

सरलसंस्कृतसम्भाषणाम्



Organized by

Department of Sanskrit, Narajole Raj College

Starting Date: 17th May, 2023

Time: 8:00 a.m.- 10:00 a.m.

Venue: Smart Auditorium, Narajole Raj College

Course Co-ordinators:

Prof. Tumpa Jana & Dr. Uttam Kumar Singha

Vice Principal: Dr. Ranajit Kumar Khalua

IQAC Co-ordinators: Prof. Pragna Paramita Mondal

# About the Department:

Narajole Raj College was born in the year 1966 as a vow to fulfil the vision of imparting a holistic education to the people of this area and marked a watershed in the history of the hamlet. The Department of Sanskrit of Narajole Raj College is one of the earliest bearers of its glorious cultural heritage and has witnessed a steady growth in keeping with the shifting contours of higher education in a rural centre. Right after the inception of the college, wisdom guided our founding fathers to choose Sanskrit as one of the courses to begin with as a reflection of the rich tradition of India. Thus began the long journey of the department, a journey far from over. In 1966 only the General (Elective) Course in Sanskrit was offered. Then in 2005 the Honours Course was introduced. In 2017, the department crossed another milestone --- introduction of the Post Graduate Section in Sanskrit. Over the decades the department has built a robust student base. At the beginning there were only 30 students. But now there are 140 students in Honours and 1000 students in the General Course. The departmental magazine 'Prachyabani' is published every year. It has secured an ISSN from 2014 onwards and the students take the initiative to bring out a wonderful annual wall magazine. Recently the departmental library has been upgraded for the students. The number of books kept in it is more than 500. Moreover, the Central Library of the college is equipped with almost 3000 and above books on Sanskrit language and literature. The Department hosted a National Level Seminar on The Vedas: Problem of the Environment Today and Possible Solution in December 2011.

## About the department of IOAC

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### **About Course**

- 1.Total course duration of 30 hourse will be scheduled from 13<sup>th</sup> May 2023. The classes will be both theory and practise based.
- 2. The applicant must be a student at this college, and vacancies are available in all department and semesters.



- 3. All students are encouraged to submit their names to their respective co-ordinator's. from the entire college, no more than 100 candidates will be chosen for the above mentioned course. The course will be start from 13<sup>th</sup> May 2023. Fee payment: Rs100/-
- Following the completion of the course, a timely evalution will be conducted, which may be theoretical or mock test based.
- Candidates who successfully complete the evaluation process will be certified. The certificate will contain the grades that reflect their aptitude for and performance in the specified course.

#### Course Objectives and Outcomes

#### The objective of the course is to: -

Teach students basic Sanskrit.It is assumed that the students have a basic understanding of the subject.

To assist them in developing skills of spoken in Sanskrit.

The student's primary focus will be to learn basic Sanskrit Grammar in a short time.

Provide a platform for students to learn the Sanskrit and established himself.

#### COURSE CONTENTS

#### प्रथमः पाठः

- १. परिचयः (एकवचनम्)-कः/ का/किम्।
- २. सर्वनामानि, लिङ्गभेदः, त्रीणिलिङ्गानि (एषः/ सः, एषा/ सा, एतत् / तत् )।
- संख्याः ( एकतः दशपर्यन्तम्)।
- ४. षष्ट्रीविभक्तेः प्रयोगः।
- 'न''आम्' इत्यस्यप्रयोगः।
- ६. क्रियापदानि ( एकवचनम्- प्रथमपुरुषे उत्तमपुरुषेच )।

#### द्वितीयः पाठः

- एकवचनम् बहुवचनम्।सर्वनामानि
  (अहम्-वयम्, भवान् भवन्तः, भवती-भवत्यः, एषः-एते, एषा-एताः
  एतत्-एतानि, सः-ते, सा-ताः,तत्-तानि, कः-के, का- काः, किम्-कानि,
  यः-ये,या-याः,यत्-यानिइत्यादयः)।
- २. अव्ययपदानि ( अत्र, तत्र, कुत्र,यत्र, अन्यत्र, सर्वत्र,एकत्र)।
- वर्त्तमानकालप्रयोगः (लट्लकारः)।
- ४. द्वितीयाविभक्तेः प्रयोगः।
- सप्तवासराणां परिचयः।



# तृतीयः पाठः

- श. आज्ञाप्रार्थनादयः (लोट्लकारः)।
   भवतु,गच्छतु, अस्तु, करोतु, लिखन्तु, चलन्तु, कुर्वन्तु, पश्यन्तु, पठन्तु, नयन्तु,आनयन्तुइत्यादिः।
   अस्तुगच्छतु, तथाअस्तु, माअस्तुइत्यादिः।
- २. शिष्टाचारः।
- पञ्चमीविभक्तिः-तस्-प्रत्ययस्यउपयोगः (स्थानात्, कालात्, गृहतः, शाखातःइत्यादयः)।
- ४. 'इतः', 'ततः', 'कुतः', 'अतः', 'यतः', 'पश्चात्', 'पूर्वम्', 'परम्'इत्यादीनांव्यवहारः।
- संख्या- विशेषणानि।एकः, एका,एकम्।त्रयः,तिसः, त्रिणी। चत्वारः, चतसः, चत्वारि।द्वि– द्वयम्।त्रि-त्रयम्। चतुर्- चतुष्टयम्।बालकद्वयम्, छात्रत्रयम्, देवताचतुष्टयम्।
- संख्यावाचकाः

  ( एकादशतः

   षष्टिपर्यन्तम् )

  पञ्चतःअग्रेसंख्यावाचकानांतिंगभेदःनवर्तते।यथा
  पञ्चशिष्याः,षट्शास्त्राणि,दशअवताराःइत्यादयः।

# चतुर्थः पाठः

- समय-पाठः।सचित्रंपाठनम्।
   पादः, अर्धः, पादोनः, सपादः, सार्धः, अधिकः, ऊनः।
- २. काल- मापनम्।दिवसः, २४होरा,६०निमिषाः, ६०विनिमिषाः। सप्ताहः,पक्षः, ऋतुः, मासः, ,संवत्सरः, युगम्।
- सप्तमीविभक्तेः प्रयोगः।
- ४. 'पुरतः''पृष्ठतः' 'वामतः''दक्षिणतः' 'उपरि' 'अधः' इत्यादीनांव्यवहारः।
- उच्चैः, शनैः,शीघ्रम्, मन्दम्-पदानांव्यवहारः।
- ६. सम्बोधनम्- भोः!,श्रीमन्!, मान्ये!, भगिनि!,मित्र!, महोदय!इत्यादिः।

#### पञ्चमः पाठः

- १. अपिशब्दस्य प्रयोगः।
- २. भूतकालप्रयोगः (क्तवतु, स्म )।
- चतुर्थीविभक्तेः प्रयोगः
- ४. च, अपि,हि,वा,किन्तु,परन्तु, किल अव्ययपदानांव्यवहारः।
- ५. अद्य, आरभ्य/ तः, पर्यन्तम्।
- ६. संख्याः ( एकषष्टितः शतपर्यन्तम्)।

#### षष्ठः पाठः

- भविष्यकालप्रयोगः ( लृट्लकारः)।
   गमिष्यामि, गमिष्यामः,गमिष्यति, गमिष्यन्तिइत्यादिः।श्वः,परश्वः, आगामिनिमासेइत्यादिः।
- २. वर्तमानकालतः भविष्यकाले परिवर्तनम्।
- तृतीयाविभक्तेः प्रयोगः।
- ४. अद्यतन / श्वस्तन / ह्यस्तन/ पूरातन/ इदानीतन- इत्यादीनांप्रयोगः।





अवयवसंविश्वनः क्रियाशब्दाः ( पश्यित, जिघ्रति, शृणोति, भक्षयित, खादिति,वदित, गिलिति,चर्वित, ५. शरीरस्य अवयवाः ( मस्तकात्पादपर्यन्तम्)

आस्वादतेइत्यादयः)।

# सप्तमः पाठः

- परिवारः परिवारसम्पर्कश्च।
- वेशभूषाणानां नामानि।
- यानवाहनानां नामानि।
- शत्- शानच्-प्रत्ययान्तानां प्रयोगः।
- अव्ययशब्दाः,शब्दयुग्मानि। यदि-तर्हि,यदा-तदा, चेत्- नो-चेत्,यद्यपि – तथापियत्र-तत्र, यथा-तथा,यानि– तानि, इतःपूर्वं, पुनःपुनः,शनैःशनैः।
- सार्वनामिक विशेषणानि। कीदृशः/ यादशम्।, तादशम्।यादशः/ यादशी/ ईदृशः/ ईदृशी/ईदृशम्।तादृशः /तादृशी कीदृशी/कीदृशम्।एतादृशः/एतादृशी/ एतादृशम्।

#### अष्टमः पाठः

- १. क्त्वान्त-ल्यवन्त (पूर्वकालवाचकानि) पदानां प्रयोगः।
- पूरणवाचके षुलिङ्गभेदः।प्रथमः, प्रथमा, प्रथमम्।द्वितीयः, द्वितीया,द्वितीयम्। तृतीयः, तृतीया, तृतीयम्।चतुर्थः, चतुर्थी, चतुर्थम्।पञ्चमः, पञ्चमी, पञ्चमम्इत्यादयः।
- रिक्तम्/ पूर्णम् ,अन्तर् /बहिः, इव,एव,कृते- अव्ययानांव्यवहारः।
- प्राणिनां नामानि।
- विशेष्यानि।विशेषणानि।
- वर्णाः ( रक्तः, नीलः, श्वेतः, कृष्णः, पीतः ,हरितः, काषायः, कपिशः ,पाटलः)।

#### नवमः पाठः

- तुमुन-प्रत्ययानां प्रयोगः। ( हेत्वर्थकाः) पृच्छा-किमर्थम् ? गन्तुम् , नेतुम्,पठितुम्,स्थातुम्इत्यादयः।
- रसाः/ रूचिशब्दाः ( मधुरः, अम्लः, लवणः ,कटुः, तिक्तः, कषायः, ऊष्णम्, शीतम्)
- पुरातनम्/ नृतनम्, बहु/ किञ्चित्, हस्वः/ दीर्घः, स्थूलः/ कृशः, उन्नतः/ वामनः, बृहत्- लघुः
- कर्मणि-विध्यर्थी-धातुसाधित- विशेषणानि। कार्यम्, कर्त्तव्यम्,करणीयम्, स्मरणीयम्, चरणीयम्।
- 'इति' 'कदा' 'निश्चयेन' 'प्रायशः' 'खलु' 'अपेक्षया' इत्यादीनां व्ववहारः।
- अहम्/ भवान्, अहम्/ भवती, त्वम्/भवान्, त्वम्/ भवतीइतिपदानां व्ववहारः।

#### दशमः पाठः

- नर-लता-मुनि-मति-वारि-नदी-पित-मात् -शब्दानां सामान्यज्ञानम्।
- इतःपूर्वम्, इतःपरम्, इतोऽपि, इत्युक्ते-पदानां व्यवहारः।
- वर्तमानकालिकदिनचरी। 3.
- भोजनसम्बन्धिशब्दाः।
- रोगाणां नामानि।
- वैद्यरोगि-सम्भाषणम्।



# एकादशः पाठः

- गच्छत्-मनस्-आत्मन्-तद् \_\_किम्-इदम्-अस्मद्-युस्मद्-द्वि-त्रि-चतुर् शब्दानां सामान्यं ज्ञानम्। ₹.
- चित् किश्चत् काचित् किचित् कितिचत् कदाचित् कथंचित् कुत्रचित्इत्यादि-पदानां व्यवहारः। 3.
- यावत्/ तावत् , कति/ कियत्,यः-सः, या-सा, यत्-तत्- पदानांव्यवहारः। संवादरूपेण संभाषण-प्रकाराः। 8.
  - मातापुत्रीच्,पितापुत्रःच,अग्रजःअनुजःच, अग्रजाअनुसारच,गुरुशिष्यःच।
- पाकशालासम्बन्धिवस्तुनां नामानि।
- भू गम्पठ्पा, दृश्, शी, दा, . कृ, अस्-धातूनां सामान्यं ज्ञानम्।

#### द्वादशः पाठः

- पाठयतिइत्यादीनां केषाञ्चित्ययन्तक्रियापदानां प्रयोगः।
- अव्ययपदानांव्यवहारः। ₹.
- दूरवाण्यांमित्रसम्भाषणम्। 3.
- भारतदेश- परिचयः। प्रदेशाः, पर्वताः, नद्यः, ऋतवः, संस्कृतिः, भाषाः, साहित्यम्इत्यादिः।
- समयवाचकाः,नियतकालवाचकाः। दिवा, रात्रौ,प्रातः, मध्याह्ने, अपराह्ने, अहः, रात्रि, प्रहरः, अहोरात्रं, दैनिकं, साप्ताहिकं, पाक्षिकं, मासिकं, सांवत्सरिकमइत्यादिः।
- . अन्तरिक्षपरिचयः। सूर्यः, चन्द्रः, तारकाः, ग्रहाः, नक्षत्राणि, भ्रमणं, परिभ्रमण,कक्षा, सूर्यमण्डलम्, इत्यादिः।

#### त्रयोदशः पाठः

- कक्ष्यायां छात्राणां सम्भाषणम्।
- गृहकर्मद्रव्यानां नामानि।
- शस्यफलमूलानां नामानि।
- वाक्येषु उपयोगः।स्नेहः, अनुरागः, क्रोधः, मत्सरः,लोभः,मोहःइति। भावनानां विषये परस्परं संभाषणानि।
- ग्रन्थपरिचयः।चत्वारःवेदाः, अष्टोत्तरशत-उपनिषदः,षड्दर्शनग्रन्थाः, दशमुख्याउपनिषदः, षडदर्शनानिइत्यादिः।
- सुभाषितानां पाठः।

# चतुर्दशः पाठः

- १. पत्र-प्रेषणम्। पत्रलेखनम्, लेखनक्रमः, नाम,संकेतः, व्यवसायः, जन्मतिथिः, व्यावसायिकंपत्रम्, अभिवादनम्, स्नेहपत्रम्, आमन्त्रणपत्रम्इत्यादयः।
- वद्, लभ्, शी,ज्ञा, पूज्,क्री, लिख-धातूनां सामान्यं ज्ञानम्।
- . गीतानाम् अभ्यासः।
- सुभाषितानां पाठः। 8.
- लघुकथाकथनम्।

#### पञ्चदशः पाठः

- जिज्ञासूनाम् अभिव्यक्तिः सम्भाषणम्भाषणंच। अतिथीनां स्वागतम्, आसनग्रहणार्थं निवेदनम्, मारगदर्शनं प्रार्थना च। आगतानां परिचय-प्रदानम्,प्रास्ताविकम्, मुख्यातिथिभ्यः भाषणार्थं प्रार्थना, कृतज्ञताज्ञापनम्, सूचनाप्रकटनम्, धन्यवादार्पणम्।
- २. छात्राणां मध्ये अभिनयेन- नाट्यशास्त्रवासंस्कृतवार्तालापः।
- ३. गीतानां गानम्।
- ४. सुभाषितानां पाठः। शान्तिपाठः

#### Resource Person's

Ram Dandapat, Member of Sanskar Vahini, global sanskrit forum. Somnath Chakraborty, Member of Sanskar Vahini, global sanskrit forum.

### Member's of the Course

- 1. Prof. Anustup Chottopadhayay, HOD dept. of sanskrit
- 2. Prof. Asis Bhattacharya
- 3. Prof. Tumpa Jana
- 4. Prof. Barnali Banerjee
- 5. Dr. Uttam Kumar Singha
- 6.Dr. Rabindranath Maiti
- 7. Prof. Koushik Samanta
- 8. Prof. Tapas Rana



Affiliated by Vidyasagar University



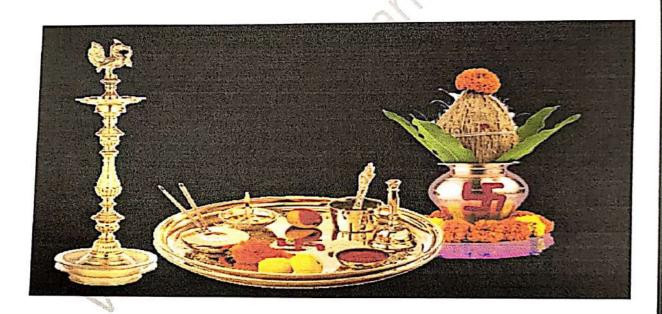
# NARAJOLOE RAJ COLLEGE



Value Added course

On

# Vedic Culture and karmakāṇḍa





Organized by

Department of Sanskrit, Narajole Raj College Starting

Date - 12th June, 2023

Time - 1st shift - 9.00 a.m. - 10.00 a.m.

2<sup>nd</sup> shift - 4.00 p.m. - 5.00 p.m.

Venue: Smart Auditorium, Narajole Raj College

Course Co - ordinators

Anustup Chottopadhyay, Prof. Asis Bhattacharya & Prof. Barnali Banerjee

Principal - Dr. Basudev Mandal

IOAC Co-ordinator - Prof. Pragna Paramita Mondal

About the Department

Narajole Raj College was born in the year 1966 as a vow to fulfil the vision of imparting, a holistic education to the people of this area and marked a watershed in the history of the hamlet. The Department of Sanskrit of Narajole Raj College is one of the earliest bearers of its glorious culture heritage and has witnessed a steady growth in keeping with shifting contours of higher Education in a rural centre. Right after the inception of the college, wisdom guided our founding fathers to choose Sanskrit 000 o3ne of the courses to begin with as a reflection of the rich tradition of India. Thus began the long journey of the Department, a journey far from over, in 1966 only the General (elective) course in Sanskrit was offered. Then in 2005 the Honours Course was introduced. In 2017, the department crossed another milestone- introduction of Post Graduate Section in Sanskrit. Over the decades the department has built a robust student base. At the beginning there were only 30 students, but now there are 140 students in Honours and 1000 students in the General Course. The departmental magazine 'pracyavani' is published every year. It has secured an ISSN from 2014 onwards and the students take the initiative to bring out a wonderful annual wall magazine. Recently the Department library has been upgraded for the students. The number of books kept in it is more than 500. Moreover the Central Library of the College is equipped with almost 3000 and above books on Sanskrit language and literature.

#### -: About the Course: -

The department of Sanskrit, Narajole Raj College undertakes vedic culture and karmakāṇḍa (the studies of karma-kaṇḍa, upāsanā-kāṇḍa and other disciplines) as a value-

added course to honour the faith, believes and rituals of local Hindu community. Anuşthānas play vital role in the refinement and upliftment of a person. This course aims to spread this knowledge system for the well-being of society. It further initiates to highlight the wanting of nitya-karma and naimittika-karma and samskāras. This course also emphasises on environmental consciousness which are underline the in the process of worshiping.

# -: Objectives of the Course: -

This course aims -

- ► To aware the pupils with the process of worshiping
- ► To make them skilful to worship
- ► To worship and conduct the samskāras in appropriate manner

#### -: Outcome: -

At the end of the course the trainee will be well accomplished in dealing with everyday essential worshiping methods of the local community by maintaining appropriate norms of the Hindu rituals.

#### -: Eligibility criteria:-

All the students who are deeply interested in this course of our college may join in this program. Apart from that the students of other department may also join this course.

#### -: Seat capacity:-

Maximum 100 aspirants will be allowed to join.

#### -: Time and Duration:-

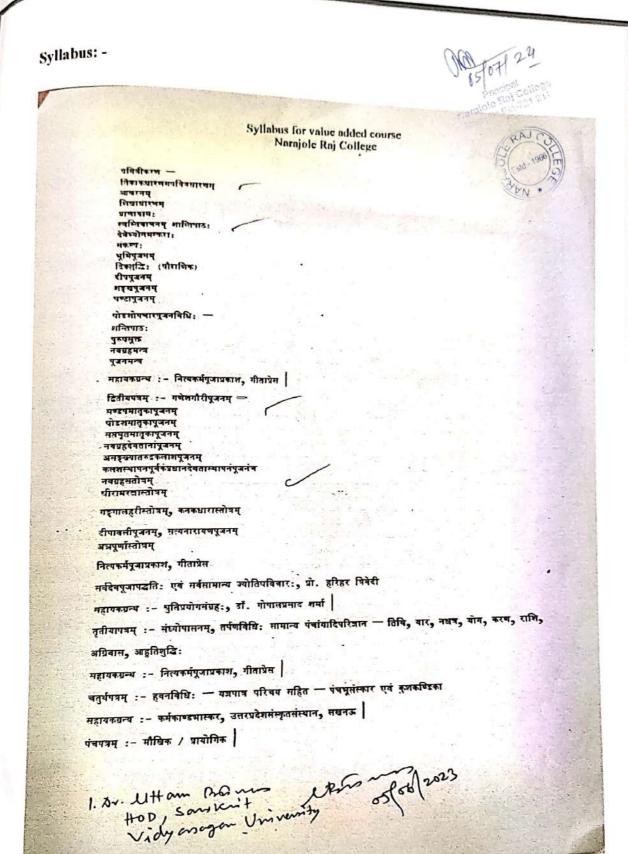
Total duration of the course 30 hours will be scheduled from 12<sup>th</sup> June, 2023 – 30<sup>th</sup> June, 2023

#### -: Evaluation and Certification:-

- ► Evaluation of the students will be done through Examination.
- Candidates who successfully complete the evaluation process will be certified. The certificate will contain the grades that relief their aptitude for and performance in the specified course.

#### -: Fees Payment:-

Students do not have to pay any money



# Suggested Readings: -

Nityakarmapūjāprakāśaḥ Rudrāṣṭādhyāyī Purohitadarpaṇa Gita Press, Gorakhpur Gita Press, Gorakhpur

# Resource Person:

Sri Bagala Charan Chakraborty, M.A (Sanskrit), Kavya, Vyakaran tirtha, Ex. Teacher. Brahamanbasan High School.

Sri Sitansu Shekhar Chakraborty, M.A- triple (Sanskrit), Kavya, Vyakaran, Kirta tirtha. Ex. Teacher, Karui Union high School.

Sri Debasis Bhattacharya, B.A (Hionours) Kavya, Vyakaran, Kirta tirtha.

Sri Debasis Chakraborty, B.A (Hionours) Kirta tirtha.

# Member of the course -

- 1) Prof. Tumpa Jana
- 2) Dr. Uttam Kumar Singha
- 3) Dr. Rabindranath Maiti
- 4) Prof. Kausik Samanta

5) Prof. Tapas Rana

Asharah Banda

A-Chattopadhyaya.

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#### Report of the Value Added Course on Spoken Sanskrit

# Organized by the Department of Sanskrit in collaboration with IQAC Narajole Raj College

2022 - 2023

meeting of the Board of Studies was held on 20/02/2023 for the Value Added Course on Spoken Sanskrit initiated by the Department of Sanskrit. The meeting was held in the presence of Vice Principal Dr. Ranajit Kumar Khalua and Coordinator of IQAC Prof. Pragna Paramita Mondal. Dr. Gagan Chandra Dey, Associate Professor, Dept. of Sanskrit, Sabang Sajanikanta Mahavidyalaya was present as an external expert in this meeting. Prof. Tumpa Jana and Prof. Uttam Kumar Singha of the Sanskrit department of this college were in chargeof conducting the course. 11I students applied for this course.

The objective of the course is -

- Teach students basic Sanskrit is assumed that the students have a basic understanding of the Subject.
- To assist them in developing skills of spoken in Sanskrit.
- The students primary focus will be to learn basic Sanskrit Grammar in a short time.
- Provide a platform for students to learn the Sanskrit and established himself.

Course outcome is -

- Learning how to form sentences in Sanskrit language.
  - Acquiring speaking skills in Sanskrit language.
  - Knowing the Sanskrit names of practical objects.
  - Eliminating the fear of Sanskrit language.
  - Increasing interest in Sanskrit language.

This Value Added Course on Spoken Sanskrit was collaborated by Global Sanskrit Forum. Trainers were Ram Dandapath and Somnath Chakraborty, two members of Global Sanskrit Forum. The opening ceremony of this Course for two hours every day for 15 days was on 17/05/2023. The opening ceremony was auspieiously started with Vedic Mangalacharana. Prof. Uttam Singha recited Vedic Mangalacharana. After that, the opening song was performed by the students of this department. The Vice Principal of this college offered garlands on Goddess Saraswati and lit the lamp. Asis Bhattacharya, Senior Profess of Sanskrit Department gave the welcome address. Finaly Prof. Uttam Singha thanked everyone. Then Ram Dandapath started the first day class with the students. Every day in the class different rules and practices of speaking in Sanskrit were shown. Also there were group discussions in Sanskrit on various topics. Each day's class began with Saraswati Vandana and ended with Shanti Mantra recitation. On the last day (31/05/2023), certificates were officially handed over to the students who have participated in this course. The program was conducted by Prof. Tumpa Jana. External expert of boardof studies Dr. Gagan Chandra Dey, Trainer Ram Dandapat and Vice Principal sir of this College were present on the occasion.

Thus 111 students successfully completed the 15-day Value Added Course on Spoken Sanskrit. Students

could learn to speak small sentences and construct sentences from this course. Some students briefly introduced themselves in Sanskrit language at the closing ceremony. So we will try to do more such courses in the future.





# Report of the Value Added Course on

#### Vedic culture and Karmakānda

# Organized by the Department of Sanskrit in collaboration with

IQAC ,Narajole Raj College 2022 - 2023 Naratolo Sal Colo

A meeting of the Board of Studies was held on 05/06/2023 for the Value Added Course on **Vedic culture** and **Karmakāṇḍa** initiated by the Department of Sanskrit. The meeting was held in the presence of Principal Dr. Basudev Mandal and Coordinator of IQAC Prof. Pragna ParamitaMondal. Dr. Uttam Biswas, Assistant Professor, Dept. of Sanskrit, Vidyasagar University was present as an external expert in this meeting. Sri Asis Bhattacharya and Smt.Barnali Banerjee of the Sanskrit department of this college were in chargeof conducting the course. 102 students applied for this course.

#### **About the Course:**

The department of Sanskrit, Narajole Raj College undertakes *vedic culture and karmakāṇḍa* (the studies of *karma-kaṇḍa*, *upāsanā-kāṇḍa* and other disciplines) as a value-added course to honour the faith, believes and rituals of local Hindu community. *Anuṣṭhānas* play vital role in the refinement and upliftment of a person. This course aims to spread this knowledge system for the well-being of society. It further initiates to highlight the wanting of *nitya-karma* and *naimittika-karma* and *saṁskāras*. This course also emphasises on environmental consciousness which are underline the in the process of worshiping

#### This course aims -

- ► To aware the pupils with the process of worshiping
- ► To make them skilful to worship
- ► To worship and conduct the *samskāras* in appropriate manner

Outcome: At the end of the course the trainee will be well accomplished in dealing with everyday essential worshiping methods of the local community by maintaining appropriate norms of the Hindu rituals.

Full classes are taken in two sessions totaling 15 days. Those who have taught this course are: Sri Bagala Charan Chakraborty, Sri Sitansu Shekhar Chakraborty, Sri Debasis Bhattacharya, Sri Debasis Chakraborty, Sri Asis Bhattacharya, Sri Anustup Chattopadhyaya.

The opening ceremony was auspieiously started with Vedic Mangalacharana. Sri Anustup Chattopadhyaya recited Vedic Mangalacharana. After that, the opening song was performed by the students of this department. The Principal of this college offered garlands on Goddess Saraswati and lit the lamp.Smt.Barnali Banerjee, Sanskrit Department gave the welcome address. Finaly Our Pricipal Dr. Basudev Mandal thanked everyone. On the last day (30/06/2023), certificates were officially handed over to the students who have participated in this course. Thus 102 students successfully completed the 15-day Value Added Course on **Vedic culture and Karmakāṇḍa**. So we will try to do more such courses in the future.







# ICPR Sponsored

# One-day Periodical Lectures and State Level Seminar (Blended Mode)

ON

"Basic Values Embodied in Indian Culture and their Relevance to National Reconstruction"

Organised

by the

DEPARTMENT OF PHILOSOPHY

Under the guidance of

IQAC, Narajole Raj College

And assistance with

Seminar and Workshop Committee and Technology Sub Committee, Narajole Raj College

on

17.02.2024

The Department of Philosophy has organized One-day Periodical Lectures and State Level Seminar on "Basic Values Embodied in Indian Culture and their Relevance to

West Bengal.

**National Reconstruction**" on 17.02.24 (Tuesday) at 10:00AM in the Smart Auditorium of the college under the guidance of IQAC, and assistance with Seminar and Workshop Committee and Technology Sub Committee, Narajole Raj College.

### Rationale of the Seminar:

India is a country which has always been diverse in terms of culture. Indian Culture is one of the most ancient culture of the world. The values of spirituality, faith in karma, truth, non-violence inspires the people of our nation. The cultural scenario of India is the heritage of belief system, language, social norms, values as well as traditions. As India is a multicultural society, we ought to know the influence. As Values, Cultures etc, is a part of the syllabus, students would be benefitted from such academic discussion.

#### Resource persons:

Dr. Dipayan Pattanayak, Professor, HOD, Department of Philosophy, Jadavpur University and Dr. Tapan Kuamr De, Professor, Department of Philosophy, Vidyasagar University, Dr. Rajkumar Modak, Professor, Department of Philosophy, Sidho-Kanho-Birsha University, Mr. Siddique Alam Beg, Assistant Professor, Department of Philosophy, Raiganj University, were invited as Resourse Person and Dr. Kaushik Mahapatra, Assistant Professor, Department of Philosophy, Indas Mahavidyalaya, Bankura. Chaired of the Seminar.

No of participants:

The participants included mostly the students of various departments of the college. The total strength of the students was noted to be 85. Along with the students, teaching faculties from other Departments and non-teaching staffs were also present in the seminar. 35 delegates from different colleges also attended the seminar.

Topic discussed by the Resource persons: At first Dr. Dipayan Pattanayak, Professor, Department of Philosophy, Jadavpur University, delivered his lecture on the topic namely "Contemporaneity of the teachings embodied in Ishopanishada". He presented his valuable speech very nicely to the students, Research Scholars as well as other Academicians. The Second Resource Person Dr. Tapan Kumar De, Professor, Dept. of Philosophy, Vidyasagar University delivered his lecture on the topic namely "Values and the New Generations". ThirdResource PersonDr. Rajkumar Modak, Professor, Dept. of Philosophy Sidho-Kanho-Birsha University, Purulia, delivered his valueablelecture on his topic namely "Nationalism Svadeshprem and Universal Humanism: A Resume". The Fourth One, Mr. Siddique Alam Beg, Assistant Professor, Dept. of Philosophy, Raiganj University, Raiganj, his Valuable lecture on his topic namely "Indian Values and its Realistic Interpretation". This academic session was chaired by Dr. Kaushik Mahapatra, Assistant Professor, Dept. of Philosophy, Indas Mahavidyalaya, Bankura University.

The paper presentation session was conducted and a total of 40 paper presented by the Research Scholar, teachers and most importantly students from Dept. of Philosophy, Narajole Raj College. All the academic session was fruitful as the interactive session going on. Finally the seminar concluded as the valedictory session was placed and vote of thanks given by Dr. Bholanath Mahato, Joint-Convenors of this Seminar and Assistant Professor, Mr. Singray Tudu, Sri Achintya Ghosh, State Aided College Teacher, HOD, Philosophy, Narajole Raj College. In this connection we got tremendous co-operation from Principal, IQAC co-ordinator, Sri Asis Bhattacharya, State Aided College Teacher, Dept. of Sanskrit, Dr. Mangal Kumar Nayak, Assistant Professor & HOD, Dept.of History and assistance with Seminar and Workshop Committee and Technology Sub-Committee, Narajole Raj College.



West Bengal.

Certificates of Participation and of Appreciation were duly issued to all the participants and the resourced persons following standard procedure.

#### Outcomes:

All throughout the day, Periodic Lectures and the seminar saw a huge surge of enthusiasm among the participants on the blended mode and it was aptly reflected in their active and eager participation during the interactive sessions. The programme organizers have been greeted with mostly positive feedbacks from all the stakeholders which attest the effectiveness of the initiative.

#### Feedback:

The students were very delighted to have got an opportunity to participate in the aforesaid titled seminar.

The programme organizers have been greeted with mostly positive feedbacks from all the stakeholders which attest the effectiveness of the initiative.

The students also demanded to participate in such type of seminars in the future also. At last, it can be ascertained that the motive of the seminar which was to create academic interest among the students was achieved successfully.

ICPR Sponsored One-day Periodical Lectures and State Level Seminar organized by the Dept. of Philosophy, Narajole Raj College, Paschim Medinipur,

West Bengal.



#### PFMS Sanction Letter LPictures







# INAUGRATION OF WATERING OF SAPLING

February 17, 2024







DIFFERENT MOMENTS DURING
THE WHOLE DAY, AS THE
RESOURCE PERSONS AND
PARTICIPANTS HAD BEEN BUSY
TO DELIVER AND ACQUIRE SOME
THOUGHTS ON THE TOPIC.



Thank you Indian Council of Philosophical Research (ICPR) by providing financial assistance to conduct this type of Seminar. In future we are very much interested to organize this type of programme again.

Joint-Convenors Singray Tudu





#### **CONSTITUTION OF YOGA CENTRE**

(w.e.f. June 21, 2022)

- \* Dr. Ranajit Kumar Khalua. Vice Principal and Chaiman, Yoga Centre.
- \* Prof. Bholanath Mahato. Assistant Professor, Dept. of Philosophy, Convenor of this Yoga Centre.
- \* Dr. Atanu Nanda. Assistant Professor, Dept. of Physical Education as Member.
- \* Prof. Nandita Bhakat Assistant Professor, Dept. of Botany as Member.
- \* Prof. Partha Kumar Manna. –State Aided College Teacher, Dept. of Physical Education as Member.
- \* Prof. Singray Tudu. Assistant Professor, Dept. of Philosophy as Member.
- \* Dr. Rabindranath Maity. State Aided College Teacher, Dept. of Sanskrit as Member.
- \* Dr. Uttam Kumar Singha State Aided College Teacher, Dept. of Sanskrit as Member.
- \* Prof. Bilas Samanta. State Aided College Teacher, Dept. of History as Member.
- \* Prof. Prasenjit Senapoti. –State Aided College Teacher, Dept. of Political Science as Member.
- \* Prof. Supen Sarkar. Assistant Professor, Dept. of Political Science as Member.
- \* Dr. Sukamal Maity. State Aided College Teacher, Dept. of Geography as Member.
- \* Prof. Tumpa Jana. Assistant Professor, Dept. of Sanskrit as Member.

A Value – added Course on Yoga & Meditation: This Value – added Course on Yoga & Meditation is carried out through Offline Mode by the Yoga Centre of the Narajole Raj College.

A Syllabus was assigned to them .The classes of this course were taken from 21.06.2022 to 20.09.2022 through offline mode.

Fifty students (50) were enrolled. In this context it is good to state that The Physical Education Foundation of India ( PEFI), West Bengal Chapter extends its collaboration with the Yoga Centre, Narajole Raj College in the academic session 2022-2023.

**Details of the experts / Yoga Trainers:** 

1 .Name: Prof. Bholanath Mahato.

**Designation: Assistant Professor. (Philosophy)** 

Qualification: M.A. in Philosophy.

Professional qualification: The Art of Living Teacher.

Other qualification: UGC-NET.

2. Name: Prof.Nandita Bhakat.

**Designation: Assistant Professor.(Botany)** 

Qualification: M.Sc. in Botany.

Professional qualification: B.Ed.

Other qualification: W.B.SET.

3. Name: Dr. Atanu Nanda.

**Designation: Assistant Professor. (Physical Education)** 

Qualification: M.A., Ph.D.

Other qualification: Short term Course in Yoga.

#### **Learning Outcome & necessity of the course:**

- \* Students can easily learn different types of Yoga, Meditation and Pranayama.
- \*To culture a habit of regular Yoga and Meditation practice.
- \*To increase the body flexibility as well as mental peace.
- \*To make the students aware towards the benefits of Yoga and Meditation.
- \* Right way to think for something or someone.
- \*How to be motivated by one's own self.
- \* How to remove the pessimistic aspects of life.
- \* How to utilize the present moment.



Prof. Bholanath Mahato.

Convenor, Yoga Centre.

Narajole Raj College.





NARAJOLE RAJ COLLEGE
(NAAC Accredited B Grade Government Aided College)
NARAJOLE: PASCHIM MEDINIPUR: PIN-721211

#### Yoga Centre

# Registered candidates of VAC on Yoga & Meditation

Roll no.	Name
01.	Panchanan Jana.
02.	Prasenjit Das.
03.	Rebati Dolai.
04.	Supriya Samanta.
05.	Pinki Dolai.
06.	Manas Bera
07.	Puja Jana.
08.	Mamoni Mondal.
09.	Bhuban Hait.
10.	Papiya Maji.
11.	Tithi Patra.
12.	Somali Paramanik.
13.	Manju Dhara.
14.	Asit Jana.
15.	Partha Bagra.
16.	Akash Maji.
17.	Malay Rana.
18.	Titli Chakraborty.
19.	Debika Roy.
20.	Rajesh Hait.
21.	Ananya Mondal.
22.	Mandira Dolai.
23.	Manjushri Khatua.
24.	Sumi Pathak.
25.	Payel Pattanayak.
26.	Manisha Shee.
27.	Piyali Pattanayak
28.	Tapasi Mandal.
29.	Moumita Sabud.
30.	Puja Mandal. Anjali Khanra.
31.	Molina Patra.
33.	Rimpa Pal.
34.	Krishna Adhikary.
35.	Susmita Maity.
36.	Suman Jana.
37.	Tulsi Poria.
38.	Papiya Dolai.
39.	Madhumita Dhara. Basanti Santra.
40.	Basanti Santra. Paramita Ghorai.
41.	Sampa Jana.
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Bijoy Mondal.
Madhumita Samanta
Sujit Kundu.
Priyanka Pramanik.
Pinki Chowdhury.
Baishakhi Dolai.
Soumen Jana.
Surajit Dal.

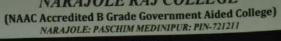
N.B: Classes will be held in room no.S-6.

Convenor Yoga Centre NarajoleRaj College





# NARAJOLE RAJ COLLEGE





Yoga Centre

# Tentative course schedule for VAC on Yoga & Meditation

Date	Time	Topic	Name of the trainer, trainers.
21/06/2022.	9:00-10:00	Introduction of Yoga & Meditation & Benefits.	Prof.Bholanath Mahato. Prof.Nandita Bhakat. Dr. Atanu Nanda.
22/07/2022	9:00-10:00	Free hand excercises & Benefits.	Prof.Bholanath Mahato.
23/07/2022	9:00-10:00	Free hand excercises & Benefits. 2	Prof.Bholanath Mahato.
28/07/2022	9:00-10:00	Surya Namaskar & Benefits.	Prof.Bholanath Mahato.
29/07/2022	9:00-10:00	Surya Namaskar & Benefits.2	Prof.Bholanath Mahato.
04/08/2022	9:00-10:00	The relation between yoga & meditation along with benefits.	Prof.Bholanath Mahato.
05/08/2022	9:00-10:00	Important of meditation.	Prof.Bholanath Mahato.
06/08/2022	9:00-10:00	Bajrasana,Vastrika Pranayama & its benefits Vastrika.	Prof.Bholanath Mahato.
08/08/2022	9:00-10:00	Gorurasana, Gomukhasana & benafits.	Dr. Atanu Nanda.
10/08/2023	9:00-10:00	Padmasana , Vujangasana & its benefits.	Prof. Nandita Bhakat
12/08/202	2 9:00-10:00	) Salvasana, Brikshasana & its benefits.	Prof.Bholanath Mahato.
13/08/202	2 9:00-10:0	0 Meditation for Inner peace.	Prof.Bholanath Mahato.
17/08/202	22 9:00-10:0	0 Bajrasana, Ushtrasana & benefits.	Prof.Nandita Bhakat
20/08/20	22 9:00-10:0		Prof.Bholanath Mahato.
22/08/20	22 9:00-10:0	O Pranayam, Pratyahar Dharana &benefits.	, Prof.Bholanath Mahato.
25/08/20	22 9:00-10:	00 Bhadrasana ,Dhanurasana& benefits.	Dr. Atanu Nanda.
26/08/20	9:00-10:		Prof.Bholanath Mahato.



27/08/2022	9:00-10:00	Free hand excercises & benefits	Prof.Nandita Bhaka
29/08/2022	9:00-10:00	Anulom - Bilom & benefits.	Prof.Bholanath Mahato.
30/08/2022	9:00-10:00	The benefits Vastrika.	Prof.Bholanath Mahato.
01/09/2022	9:00-10:00	Sarbangasana,Paschimasana & benefits.	Prof.Nandita Bhakat .
02/09/2022	9:00-10:00	Bhadrasana ,Dhanurasana& benefits.(2)	Dr. Atanu Nanda.
03/09/2022	9:00-10:00	Halasana,Padahasana & benefits.	Dr. Atanu Nanda.
09/09/2022	9:00-10:00	Sarbangasana,Paschimasana & benefits.(2)	Prof.Nandita Bhakat
10/09/2022	9:00-10:00	Halasana,Padahasana & benefits.(2)	Dr. Atanu Nanda.
12/09/2022	9:00-10:00	Gorurasana, Gomukhasana & benafits.(2)	Dr. Atanu Nanda.
13/09/2022	9:00-10:00	Free hand excercises & benefits(2)	Prof.Nandita Bhakat
17/09/2022	9:00-10:00	Padmasana , Vujangasana & its benefits.	Dr. Atanu Nanda.
19/09/2022	9:00-10:00	Padmasana , Vujangasana & its benefits.(2)	Prof.Nandita Bhakat
20/09/2022	9:00-10:00	Bajrasana, Ushtrasana & benefits.	Prof.Nandita Bhakat

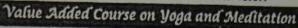
N.B: Classes will be held in room no.S-6.

Ish anoth March Convenor Yoga Centre NarajoleRaj College

Convenor Yoga Centre Narajole Raj College Narajole, PIN: 721211



(NAAC Accredited B Grade Government Aided College)
NARAJOLE: PASCHIM MEDINIPUR: PIN-721211





#### Syllabus for VAC on Yoga & Meditation

#### Part A: Yoga

1.	Yoga and its important.	3 Classes,)
2.	Free hand exercises.	3 Classes.)
3.	Surya Namaskar .	3 Classes)
4.	Padmasan and Bhujangasan.	2 Classes)
5.	Salvasana and Brikhasan.	2 Classes)
6.	Bajrasana and Ushtrasan, Padahasnasan.	2 Classes)
7.	Gorudasana and Gamukhasana.	2 Classes)
8.	Vadrasana and Dhanurasana.	2 Classes)
9.	Dhanurasana and Halasana.	2 Classes)
10	. Sarbangasan and Paschimatanasana.	2 Classes)

#### Part B: Asatantga Yoga (3 Classes)

The eight limbs of yoga are yama (abstinences), niyam (observances), asana (yoga postures), pranayama (breath control), pratyahara (withdrawl of senses), dharana (concentration), dhyana (meditation) and samadhi (absorbtion).

#### Part C: Meditation

Prayer through mantra chanting, 1 Class.

Meditation for inner peace (1 Class)

Anulom-Bilom (1 Class)

Vastrika (1 Class.)

Prague Paramite Mondel.

Signature of the IQAC Coordinator Narajole Raj College

CO-ORDINATOR,
I Q A C
NARAJOLE IS COLLEGE
NARAJOLE, PASCHIJA MEDINIDIJO

Signature of the External Expert With designation & affiliation

Secretary
DUST West Bendal Chapter India

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# Physical Education Foundation of India

National Sports Promotion Organisation Recognised by

Date:

Ministry of Youth Affairs & Sports (Government of India)

West Bengal Chapter

415478.08.2008

#### R MEMBERS

#### sident

arsan Biswas

#### e-President

hnendu Pradhan hor Mukhopadyay nshankar Chatterjee radesh Ranjan Pan swajit Bala

#### Secretary

Deha Prasad Sahu

#### Joint Secretary

Or. Sumalya Roy Mr. Prasun Chatterjee

#### Treasurer

Mr. Subhadip Pal

#### Program Director

Dr. Mahesh S Khetmalis Dr. Michael B Dhan Dr. Hidya Roy

#### Ref. No.:

To
The Vice Principal
Narajole Raj College
Narajole, Paschim Medinipur
West Bengal, India

#### From

Dr. Deba Prasad Sahu Secretary PEFI, West Bengal Chapter India

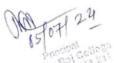
Sub: Collaboration between Narajole Raj College and the Physical Education Foundation of India (PEFI), West Bengal Chapter.

#### Sir,

I gladly inform you that as discussed in the BOS convened by you on 18.06.2022, the Physical Education Foundation of India (PEFI), West Bengal Chapter extends its collaboration with the Yoga Centre, Narajole Raj College, to offer the Value-Added Course on Yoga and Meditation in Narajole Raj College from June to December 2022 in the academic session 2022-23. I hope that this collaboration will benefit the students and will add value to the course.

Thank you.

Secretary
PEFI. West Bengal Chapter India

















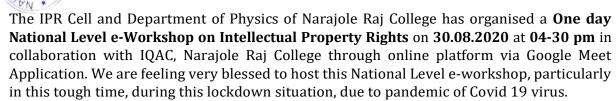
(NAAC Accredited 'B' Grade Govt. Aided College)
NARAJOLE: PASCHIM MEDINIPUR: WEST BENGAL: Pin-721211
Phone and Fax: +91-9933881131: E-mail: narajoleracollege@rediffmail.com

Website: http://www.narajolerajcollege.ac.in





Organised by IPR Cell and Department of Physics In collaboration with IQAC, Narajole Raj College 30.08.2020



**Necessity of the workshop:** We have become more and more interested to create the awareness about Intellectual Property Rights and simultaneously development of in-house expertise regarding IPR. Therefore, we have organized this National Level e- Workshop on Intellectual Property Rights.

Resource Persons: Dr. Tapas Kumar Bandyopadhyay (Associate Professor, Department of Metallurgical & Materials Engineering & Rajiv Gandhi School of Intellectual Property Law, IIT-Kharagpur), Dr. Niharika Sahoo Bhattacharya, (Assistant Professor, Rajiv Gandhi School of Intellectual Property Law, IIT-Kharagpur), Dr. Bhaskar Bhowmick (Assistant Professor, Rajendra Mishra School of Engineering Entrepreneurship, IIT-Kharagpur), Ms. Arpita Ghatak, (PhD Scholar, Rajendra Mishra School of Engineering Entrepreneurship, IIT-Kharagpur) are the respected invited speakers from Indian Institute of Technology, Kharagpur, India, Also, our Honorable Principal -Dr. Anupam Parua, PhD, C.S. is one of the resource persons.

**No of Participants:** Total 65 faculty members of different departments of our college have participated in this National Level e-workshop.

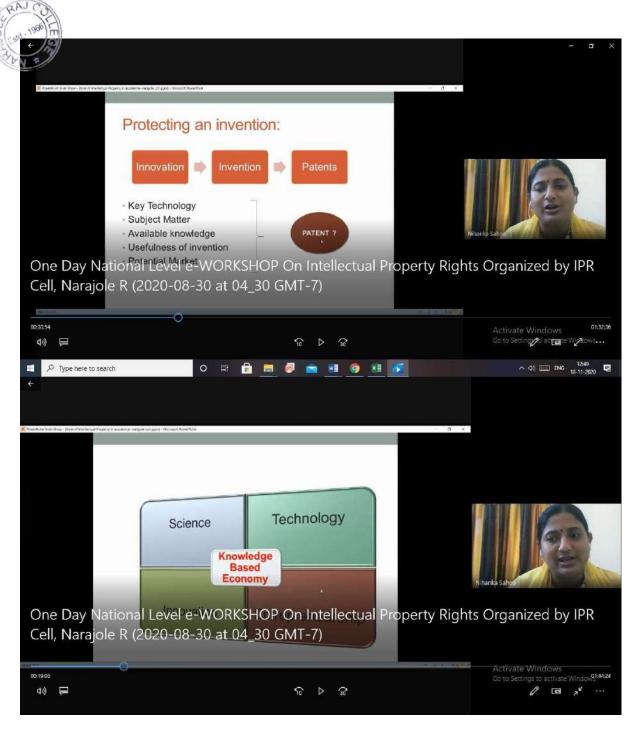
**Topic Discussed by the Resource Persons:** Dr. Niharika Sahoo Bhattacharyya delivered the Keynote address on the topic of Intellectual Property Rights. She covered the topics-IP and economic development, different forms of IPR, Patent, Trademark and Sui Genesis Law, Academy Industry Relationship, etc. The second phase of the programme was a panel discussion by the eminent speakers. In panel discussion Dr. Bhaskar Bhowmik discussed the importance of Intellectual Property Rights in Higher Education Institution, Dr. Tapas Kumar Bandyopadhyay and Ms. Arpita Ghatak discussed the importance of Intellectual Property Rights, Patents, IPR Law and Policy more elaborately, whereas our Principal Anupam Parua discussed the importance of Trademark and Copyright more elaborately. The overall panel discussion focuses on the development of in-house expertise for assessment and filling of provisional patent applications, commercialization of patented technologies as well as awareness about the rights that automatically vest to someone who creates an original work of authorship – like a literary work, song, movie or software academic/research institutions. **Outcomes:** The awareness about Intellectual Property Rights are created among the faculty members of our college. We have got the idea that IPRs have various verticals including patent, trademark, design and copyright, where some aspects are more talked about the academic community than others. The academic community needs a higher level of

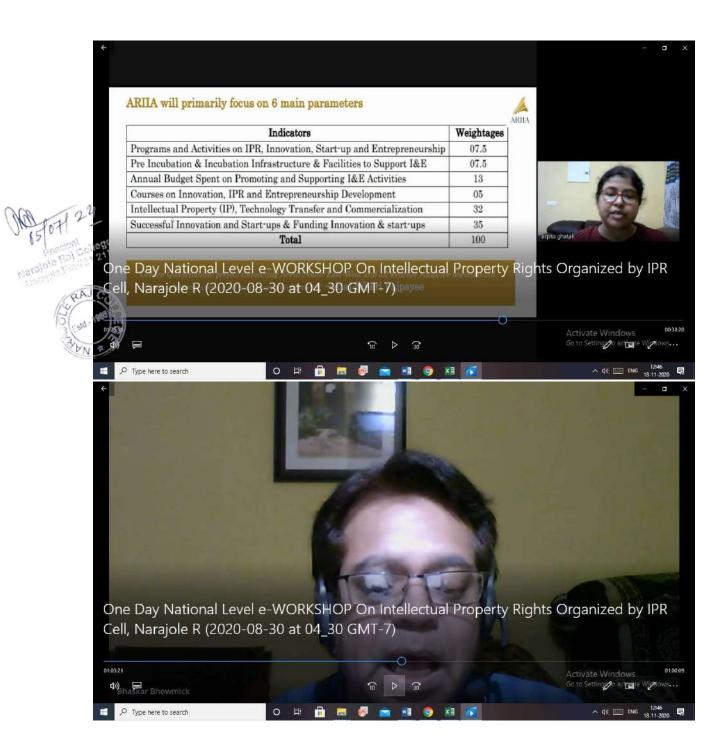
sensitization an exposure to patenting, copyrights of their publications as well as technology commercialization. The policy of Government of India is that all academic/research institutions should also develop in-house expertise for assessment and filling of provisional patent applications, commercialization of patented technologies as well as awareness about the rights that automatically vest to someone who creates an original work of authorship – like a literary work, song, movie or software. The e-Workshop will enkindle the awareness about the Intellectual Property Rights among us. Finally, we hope that we shall develop inhouse expertise concerning IPR by getting inspirations from the resource persons.



Tapanendu Kamilya

Port 24





#### **Report on Seminar on Research Ethics:**

Narajole Raj College has organized a State Level Seminar on Research Ethics on 23/11/2021 in collaboration with Department of Physics, Narajole Raj College & IQAC, Narajole Raj College. Dr. Tapanendu Kamilya, H.O.D., Physics & Convenor, IPR Cell, Narajole Raj College was the Convenor of this Seminar. Dr. Pijus Kanti Samanta, Assistant Professor of Physics from the P. K. College, Contai has discussed the topic Research Ethics. The duration of his discussion was 2 hours. More than 40 faculties of Narajole Raj College have participated in this one day seminar in virtual (online) mode. The topic discussed are-

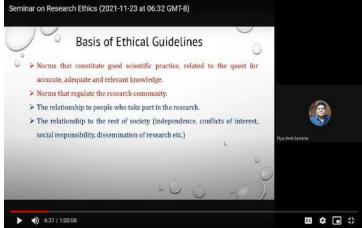
- 1. Basics of Ethical Guideline
- 2. Ethical Guidelines and Legislation
- 3. Research Ethics in Technological and Applied Research

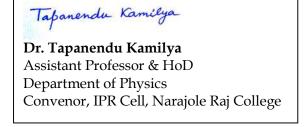
- 4. Scientific Misconduct
- 5. Plagiarism
- 6. Falsification
- 7. Authorship
- 8. Withholding Data and Validation
- 9. Wrong versus Fraudulent Papers
- 10. Good Scientific Practices
- 11. Misconduct
- 12. Copyright
- 13. Trademark
- 14. Intellectual Property Rights













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Phone and Fax: +91- 9933881131:

E-mail: narajoleracollege@rediffmail.com Website: http://www.narajolerajcollege.ac.in





#### National Webinar on Intellectual Property Rights

25-02-2023

Organized By IPR Cell NARAJOLE RAJ COLLEGE

The IPR Cell of Narajole Raj College has organised a One Day National Webinar on Intellectual Property Rights on 25-02-2023. Total 238 students and faculties from parent and different institutions have participated in this webinar. The aim of the webinar was to create interest on IPR among the faculties and students. Dr. Mahuya Hom Choudhury, Scientist C, Patent Information Centre, West Bengal State Council of Science and Technology, Department of Science and Technology and Biotechnology was the resource person. The discussion was done on IPR, IPR Laws, Copyright, Trademark, Patent, etc.

Principal Narajole Raj College Narajole Pin-721 211



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Website: http://www.narajolerajcollege.ac.in

#### Science Exhibition and Seminar on Research Methodology for School Students

28-02-2023

Organized By
Faculty of Sciences
NARAJOLE RAJ COLLEGE

The Faculty of Sciences of Narajole Raj College has organised a One Day Science Exhibition and Seminar on Research Methodology for School Students in collaboration with Breakthrough Science Society on 28-02-2023. Total 346 college students and students from different schools have participated in this workshop. The aim of the workshop was to build up research interest among the school and college students.



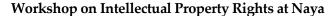
Principal
Narajole Raj College

Narajole, Pin-721 211









22-05-2023

&

Workshop on Intellectual Property Rights at Sabang

**23-05-2023** 

Organized By

#### IPR Cell NARAJOLE RAJ COLLEGE

A workshop was held on 22.05.2023 by the Intellectual Property Rights Cell of Narajole Raj College with GI number register Pot Shilpi at Naya, Pingla Police Station.

Similarly another workshop was conducted on 23.05.2023 at Ruinan in Sabong Police Station, Paschim Medinipur. In Naya Anwar Chitrakar, Ganga Manna, Gurupada Chitrakar, jaba chitrakar Monimala chitrakar etc. Pot Shilpi (obtained GI number) attended the workshop. On the other hand, at Sabang Alpana Jana, Ashok Jana, Biswajit Dutta, Chandan Mula, Gouri Bala Das, Gouri Rani Jana, Jadab Kum Samanta, Lakshmi Kanta Sahoo, Lakshmi Rani Mula, Lakshmi Sahoo, Mukul Rani Dutta, Nishikanta Das (Obtained GI No.) etc, attended the workshop.

The workshop was held Prof. Mangal Nayak, Prof. Rabindranath Maiti of Narajole Raj College were present with 10 students. The issue of socio-economic development of Shilpi came up in the workshop. Issues such as quality of products produced by Shilpi, market value, marketing, economic issues etc. The issues that the artists (Shilpi) raise in the workshop are recorded. It is said that necessary recommendations will be sent to the government to resolve the matter.





Principal
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Website: http://www.narajolerajcollege.ac.in



#### Webinar on Indian Women across the Legal and Entrepreneurial Axes

23-06-2023

&

# Organized By Entrepreneurship Cell

Entrepreneurship Cell NARAJOLE RAJ COLLEGE

A Webinar on "Indian Women across the Legal and Entrepreneurial Axes" was organized by the Entrepreneurship Cell and Gender Equity Cell of Narajole Raj College under the IQAC's guidance on 23rd June 2023 via Google Meet. Mr. Aftab Alam and Dr. Kathakali Bandopadhyay were the esteemed speakers for the session and explored diverse subjects to provide an overview of the condition of women in the public and the private spheres. Mr. Alam spoke at length about the different structural and systemic aspects of the entrepreneurial ecosystem with references to the Indian market phenomenon. Dr. Bandopadhyay articulated the concerns that are associated with the idea of questioning and mapping acts of violence in intimate, familial and social relationships. Both the speakers generated a lot of questions among students and participants and mobilized an intensely interactive session. Pragna Paramita Mondal, IQAC Coordinator and Convener of the Entrepreneurship Cell, facilitated the webinar proceedings. Baisali Guha, Convener of the Gender Equity Cell, offered the vote of thanks to speakers, collaborators and attendees. Special thanks were delivered to the Technology Sub-Committee and to Dr. Rajasree Debnath, Convener of the Seminar and Workshop Sub-Committee for their support and cooperation.

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Principal Narajole Raj College Narajole, Pin-721 211



Enterpreneurship Cell & Gender Equity Cell of Narajole Raj College invite you to a Webinar on

Indian Women across the Legal and Entrepreneurial Axes 23rd June, 2023 at 7 pm



Dr. Basudev Mandal Chief Patron & Principal, Narajole Raj College



Aftab Alam, Research Scholar, IIT Kharagpur Exploiting Entrepreneurship in the Vibrant Indian Entrepreneurial Ecosystem



Dr. Kathakali Bandopadhyahy, Asst. Professor, Subarnarekha Mahavidyalaya The Protection of Women from Domestic Violence Act, 2005



Pragna Paramita Mondal, Convener, Entrepreneurship Cell **IQAC Coordinator, Narajole Raj College** 



Baisali Guha, Convener, Gender Equity Cell, Narajole Raj College

Please join through the Google Link: https://meet.google.com/awo-oxet-qsd

Technical Support Technology Sub-Committee, Narajole Raj College

Principal Narajole Raj College Narajole, Pin-721 211

ALL ARE WELCOME



DR. MAHUYA HOM CHOUDHURY SCIENTIST C & NODAL OFFICER,

PATENT INFORMATION CENTRE, WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

SMT. PARAMITA SAHA

SCIENTIST B,

PATENT INFORMATION CENTRE, WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY



MS. SANGITA SENGUPTA SCIENTIST,

PATENT INFORMATION CENTRE, WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

#### Venue & Date

#### **SMART AUDITORIUM**

Narajole Raj College 22<sup>nd</sup> September, 2023

#### $\hbox{:: Live Streaming \&Technical Support ::}\\$

**Technology Sub-Committee** 

Narajole Raj College

Convenor: Mr. Barun Raut

Email: <u>technology@narajolerajcollege.ac.in</u>



Registration Fee: Rs. 300/-

UPI ID: poulamiadhikary-1@okaxis

#### **PROGRAMME SCHEDULE**

**REGISTRATION: 10-30 AM** 

INAUGURAL SESSION: 11-00 AM to 11-50 AM

Inauguration & Inaugural Speech: 11-00 AM to 11-10 AM

SRI SUJIT KUMAR BANERJEE

PRESIDENT, GOVERNING BODY, NARAJOLE RAJ COLLEGE

11-10 AM- 11-20 AM: Welcome Address

PROF. (DR.) BASUDEV MANDAL

PRINCIPAL, NARAJOLE RAJ COLLEGE

11-20 AM- 11-50 AM: Speech of Chief Guest

SHRI KEMPAHONNAIAH, I.A.S

ADDITIONAL DISTRICT MAGISTRATE

PASCHIM MEDINIPUR, GOVT. OF WEST BENGAL

#### TEA BREAK: 11-50AM TO 12-00 NOON

TECHNICAL SESSION-1: 12-00 NOON - 1-45 PM

Invited Lecture-1: 12-00 NOON-1-00 PM

Intellectual Property Rights, Challenges and Opportunities and Patenting System in India

#### Speaker: DR. MAHUYA HOM CHOUDHURY

SCIENTIST C & NODAL OFFICER,

PATENT INFORMATION CENTRE, WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

#### Invited Lecture-2: 1-00 PM -1-45 PM

IPR with Case Studies, Patentability Assessment

Speaker: SMT. PARAMITA SAHA

SCIENTIST B,

PATENT INFORMATION CENTRE, WEST BENGAL STATE

**COUNCIL OF SCIENCE & TECHNOLOGY** 

LUNCH BREAK: 1-45 PM TO 2-30 PM

#### TECHNICAL SESSION-2: 2-30 PM - 3-15 PM

Invited Lecture-3: 2-30 PM - 3-15 PM

#### Inventiveness in Patents

Speaker: MS. SANGITA SENGUPTA

SCIENTIST,

PATENT INFORMATION CENTRE, WEST BENGAL STATE

COUNCIL OF SCIENCE & TECHNOLOGY

Panel Discussion with Artists: 3-15 PM - 4-15 PM

Visit to Innovation Hub: 4-15 PM - 4-45 PM

VALEDICTORY SESSION: 4-45 PM - 5-00 PM

Vote of Thanks:

PRAGNA PARAMITA MONDAL, COORDINATOR, IQAC





NAAC Accredited "B" Grade Govt. Aided College Narajole, Paschim Medinipur, West Bengal Pin-721211

#### ONE DAY WORKSHOP ON

"INTELLECTUAL PROPERTY RIGHTS WITH A SPECIAL FOCUS ON GEOGRAPHICAL INDICATION (GI) OF FOLK ART IN PASCHIM MEDINIPUR DISTRICT"

# DSTBT, Govt. of West Bengal supported IPR Cell, Narajole Raj College

in collaboration with

#### **Patent Information Centre**

West Bengal State Council of Science and Technology Department of Science & Technology & Biotechnology Govt. of West Bengal

#### **INVITATION**

Dear Sir/Madam,

We are pleased to inform you that Narajole Raj College is going to organize a One Day Workshop on "INTELLECTUAL PROPERTY RIGHTS WITH A SPECIAL FOCUS ON GEOGRAPHICAL INDICATION (GI) OF FOLK ART IN PASCHIM MEDINIPUR DISTRICT" on 22nd September, 2023.

The renowned Scientist from Department of Science & Technology & Biotechnology, Govt. of West Bengal & Additional District Magistrate, Paschim Medinipur, Govt. of West Bengal will grace the Workshop with their erudite presence.

We earnestly solicit your active participation in this Workshop.

With warm regards.

Dr. Basudev Mandal Principal Dr. Tapanendu Kamilya Nodal Officer, IPR Cell &

Associate Professor Narajole Raj College

#### **About Workshop**

The policy of Government is that all academic/research institutions should also develop an in-house expertise for assessment and filling of provisional patent applications, commercialization of patented technologies as well as awareness about the rights that automatically vest to someone who creates an original work of authorship – like a literary work, song, movie or software.

As a result, we become more and more interested to create the awareness about Intellectual Property Rights and simultaneously development of in-house expertise regarding IPR. Our IPR Cell is supported and funded by DSTBT, Govt. of West Bengal. The workshop is funded by Patent Information Centre, West Bengal State Council of Science and Technology, Department of Science & Technology & Biotechnology, Govt. of West Bengal. This workshop will enkindle the awareness about the Intellectual Property Rights among us. The in-house expertise concerning IPR will be developed by getting inspirations from the resource persons.

#### **Contact Details:**

#### Dr. Tapanendu Kamilya

Associate Professor, Department of Physics Narajole Raj College

Nodal Officer

DSTBT, Govt. of West Bengal supported IPR Cell, Narajole Raj College

Mobile: 9734531749

Email: phytk@narajolerajcollege.ac.in











Workshop on

"Intellectual Property Rights With A Special Focus On Geographical Indication (GI) Of Folk Art In Paschim Medinipur District"

## organized by DSTBT,

Govt. of West Bengal supported by IPR Cell, Narajole Raj College in collaboration with Patent Information Centre,

West Bengal State Council of Science and Technology Department of Science & Technology & Biotechnology, Govt. of West Bengal



Venue: Narajole Raj College, Smart Auditorium Date: 22nd September, 2023









# One Day Workshop On

# "Intellectual Property Rights With A Special Focus On

## Geographical Indication (GI) Of Folk Art In Paschim Medinipur District"

Organized by DSTBT

**Govt. of West Bengal** 

Supported by IPR Cell, Narajole Raj College

In collaboration with Patent Information Centre, West Bengal State

**Council of Science and Technology** 

Department of Science & Technology & Biotechnology

Govt. of West Bengal

Venue: Narajole Raj College, Smart Auditorium

Date: 22<sup>nd</sup> September, 2023

#### **About the Workshop:**

The renowned Scientists from Department of Science & Technology & Biotechnology, Govt. of West Bengal & Additional District Magistrate, Paschim Medinipur, Govt. of West Bengal have graced the Workshop with their erudite presence. The policy of Government is that all academic and research institutions should also develop an in-house expertise for assessment and filling of provisional patent applications, commercialization of patented technologies as well as awareness about the rights that automatically vest to someone who creates an original work of authorship – like a literary work, song, movie or software. As a result, we become more and more interested to create the awareness about Intellectual Property Rights i.e. IPR and simultaneously development of in-house expertise regarding IPR. Our IPR Cell of Narajole Raj College is supported and funded by DSTBT, Govt. of West Bengal. The workshop is funded by Patent Information Centre, West Bengal State

Council of Science and Technology, Department of Science & Technology & Biotechnology, Govt. of West Bengal. This workshop will enkindle the awareness about the Intellectual Property Rights among us. The in-house expertise concerning IPR will be developed by getting inspirations from the resource persons.

#### **Resource Persons:**

**Dr. Mahuya Hom Choudhur**, Scientist C & Nodal Officer, Patent Information Centre, West Bengal State Council of Science and Technology, Department of Science and Technology and Biotechnology, Govt. of West Bengal. Scientist B, Patent Information Centre, West Bengal State Council Of Science & Technology. **Smt. Paramita Saha**, **Registered Indian Patent Attorney** since 2013. Presently she is working as a **Scientist B** at Patent Information Centre, West Bengal State Council of Science and technology, Department of Science and Technology and Biotechnology, Government of West Bengal. **Smt. Sangita Sengupta**, Scientist, Patent Information Centre, West Bengal State Council Of Science & Technology. Govt. Of West Bengal.

#### **Number of Participants:**

165: Total 65 faculty members of the different departments of our college, 100 students and 25 GI Shilpi (Mat and Patua) have participated in this workshop.

#### **Topic Discussed by the Resource Persons:**

This Workshop entitled "Intellectual Property Rights With A Special Focus On Geographical Indication (GI) Of Folk Art In Paschim Medinipur District" was organized by DSTBT, Govt. of West Bengal supported by IPR Cell, Narajole Raj College in collaboration with Patent Information Centre, West Bengal State Council of Science and Technology Department of Science & Technology & Biotechnology, Govt. of West Bengal. The workshop was formally inaugurated by Honourable Principal Sir of our College, Dr. Basudev Mandal. The Introductory Speech was given by our Honourable President of our College and Welcome Address by our Principal Sir of our College.

This workshop mainly focused on Intellectual Property Rights (IPRs), its challenges, opportunities and patenting system in India; the different case studies related with IPR and patentability assessment and inventiveness in patents. The workshop also focussed on copyright, trademark, GI registration, different patent laws and research ethics. Among the various participants present in the workshop program, there was a team of "Banglar Potochitro" and "Madur Shilpi" from Paschim Medinipur District (Narajole, Sabang, Pingla, Patashpur, Bhagwanpur P.S). There was an enriching interactive session among the team of "Banglar Potochitro" & "Madur Shilpi" and the eminent resource persons. The resource persons guided them on how to file a patent and gave huge informations on copyright, trademark and GI registration. This workshop enkindled on the awareness about the Intellectual Property Rights among the participants. The participants got many inspirations from the resource persons.











#### Government of West Bengal Department of Science & Technology and Biotechnology

Vigyan Chetana Bhavan, 26/B DD Block, Sector-I, Salt Lake, Kolkata - 700 064, Ph: 033-2340 2767

No: 207/WBSCST/F/0460/13

Date: 05.04.2023

From:

The Joint Secretary to the Govt. of West Bengal

To:

Dr. Tapanendu Kamilya

(Convenor, IPR Cell)

&

The Nodal Officer

IPR Cell, Narazole Raj College

Sub: Setting up of IPR Cell at the campus of your Institute

Sir,

Your proposal on setting up of IPR cell has been sanctioned and Rs.50,000/- has been disbursed from West Bengal State Council of Science and Technology (WBSCST) under this Department for the same. You are requested to send the UC and SoE of the fund utilized after setting up of the IPR cell at your institute after organizing workshop and FDP programmes.

Following are the mandate activities of the Cell

Mandate of IPR cell is to create awareness, target to file 20 Patents, 20 other forms of IPR (Design, Trademark/GI, Plant Variety Protection) within your institutes or the institute mentored by your nearby institutes, identify cutting edge technology from your area for Promotion and branding through Technology transfer and Commercialization through Technology Development and Adaptation Centre-TDAC of this Council.

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15 of 24

- Mentoring local grass root innovators for final patenting
- > Taking up IPR sensitization programmes in local colleges, ITI, Schools and sending the report to us
- ➤ Identification of granted patents for commercialization and sent to Patent Information Centre under WBSCST, DSTBT-GoWB
- > Local technology promotion/ organizing idea /technology hunt
- Identification and recommending potential innovators to idea clinic organised by this department for branding the ideas and mentoring to next level
- > Annual reporting to this Department for better functioning
- Special focus need to be taken to commercialization and market channel improvement, quality checking of GI products of your region.(List enclosed)

You are requested to collaborate / to take advice from Patent Information Centre, WBSCST, DSTBT regarding fruitful implementation of all IPR related activities.

You are also requested to acknowledge the receipt of the fund and send us the report of IPR cell on the above mentioned activities every year with a hard copy of **audited UC** and SoE of the fund received from this Council to Dr. Mahuya Hom Choudhury, Scientist C, Patent Information Centre, WBSCST, DSTBT, 26 B, DD block, Vigyan Chetana Bhavan, Salt Lake, Kolkata-700064 and scanned copy of UC and SoE to picwbscst2023@gmail.com

Thanking you,

Yours faithfully,

(Sudipta Porel)

Joint Secretary

to the Govt. of West Bengal

8

Administrative Officer, WBSCST



## Government of West Bengal Department of Science & Technology and Biotechnology

Vigyan Chetana Bhavan, 26/B DD Block, Sector-I, Salt Lake, Kolkata - 700 064, Ph: 033-2340 2767

No: 139 /WBSCST/F/0489/B(Part-I)

Date: 09/03/2013

From:

The Joint Secretary to the Govt. of West Bengal

To:

The Nodal Officer

IPR Cell

University/Institute/Engg. Colleges/ Colleges

Naradolo Salosa Naradolo Salosa RAJ CA

Sub: Setting up of IPR Cell at the campus of University/Institute/ Engg. Colleges Sir/Madam.

Your proposal on setting up of IPR cell is in process. In this connection, you are requested to send the following details

- Revise your budget for Faculty Development Programmes within Rs.25,000/- as per budget head mentioned in annexure and send separate budgets for Workshop within 25,000/- with Probable dates (Preferably March, 2023 may extend upto May, 2023).
- You are requested to send your consent for formation of IPR cell and functioning it with Protection of different forms of IPRs in collaboration with Patent Information Centre under this Department.
- Mandate of IPR cell is to create awareness, target to file 20 Patents, 20 other forms of IPR (Design, Trademark/GI, Plant Variety Protection) within your institutes or the institute mentored by your nearby institutes, identify cutting edge technology from your area for Promotion and branding through Technology transfer and Commercialization through Technology Development and Adaptation Centre-TDAC of this Council. Following other activities may be taken from your end as mandate of IPR Cell.

Contd.../p2



#### Government of West Bengal Department of Science & Technology and Biotechnology

Vigyan Chetana Bhavan, 26/B DD Block, Sector-I, Salt Lake, Kolkata - 700 064, Ph: 033-2340 2767

-2-

- Mentoring local grass root innovators for final patenting
- > Taking up IPR sensitization programmes in local colleges, ITI, Schools and sending the report to us
- > Identification of granted patents for commercialization
- Local technology promotion/ organizing idea /technology hunt
- Identification and recommending potential innovators to idea clinic organised by this department for branding the ideas and mentoring to next level
- Annual reporting to this Department for better functioning

You are requested to send your consent to mandate activities of the cell.

- Name and details of the Faculties for Faculty development programme as per annexure .
- · You are requested to mention bank account details
- You are requested to send all the mandatory documents as mentioned within 18<sup>th</sup> March, 2023 to the annexed address.

Thanking you,

Yours faithfully,

(Sudipta Porel) Joint Secretary

to the Govt. of West Bengal

#### Annexure-I

#### Budget head Format for Faculty development programme

Sl. no	Budget Head
1.	Travelling allowance for faculties for participating the programme
2.	Accommodation for the faculties
3.	Purchase of Books/printing of study materials, Miscellaneous expenditure

#### Faculty Details for Faculty Development Programme

Sl. No.	Name	Address , Contact no, E- mail	Qualification and Experience

The details may be sent to the following address:

Dr. Mahuya Hom Choudhury,
Scientist C,
Patent Information Centre,
West Bengal State Council of Science and Technology,
Department of Science and Technology and Biotechnology,
Government of West Bengal.
Phone no. 9007780898
picwbscst2020@gmail.com

PARTICIONAL CONTRACTOR OF THE PARTICIPATION OF THE

(Sudipta Porel)

Joint Secretary

to the Govt. of West Bengal

# Report of Field Visit for 'Patachitra'& 'chitrakar' of Naya, Pingla, Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur Date of Visit: 21/08/2023

#### Report summary:

**Introduction**: 'Patachitra' Painting is a cultural heritage of West Bengal. Naya, situated in Paschim Medinipur district is home to' Chitrakar's i.e., 'Potua' artist of West Bengal. Around 250 artists residing in this village. Now, Naya is known as a 'Silpagram'.

IPR Cell, Narajole Raj College conducted its visit to Naya on 21 st August, 2023. The visit was done as per direction of WBDST, sponsoring agency of the above-mentioned project of IPR Cell, Narajole Raj College. The prime motto of this visit to make an updation of the status of the artists who have got the GI registration. The survey was aimed to fetch data which will reveal the present economic condition of GI registered artists.

#### **Details about Naya:**

Sl. No.	Information related to Naya's economic condition
1.	Total number of 'Potua' population: 400 (approx)
2.	Total number of Chitrakar: 270
3.	Total number of Female Chitrakar: 140
4.	Total number of 'minor' involved in the profession: 130
5.	Total number of artist got allowance as 'Potua': All of them
6.	Total number of artist not yet got the GI registration: 200 (approx)

**Description**: Survey was done on twenty -six artists who have already got GI registration for their products. Besides them fifty more artists applied for GI but not yet received their desired registration. A questionnaire containing questions on their present economic condition was served. As per their reply, the present economic condition of them is satisfactory. The only thing they are lacking is a structured distribution system. They want a permanent distribution centre for their own to ensure the even demand of their products throughout the year.

#### Outcome:

- i. Artists who have already got the GI registration felt honored and secured as well. As they got the GI registration very recently, not yet they realized the benefit of getting GI registration.
- ii. Out of 270 artists of Naya only 26 artists got the GI registration. A speedy process is required to avail GI registration for every artist of Naya.

#### Survey Report on mat crafters (Madur Kathi Shilpi)

**Survey Date: 11.09.2023** 

**Survey Team**: Dr. Mangal Kumar Nayak (Team leader)

Dr. Rabindra Nath Maity

Prof. Nimai Sannyasi

**Student** 

Supriti Samanta Rikta Maity

Sujit Kundu



**Survey Area:** Sabang, Pingla, Debra, Patashpur and Bhagbanpur Blocks of East and West Mednipur District.

Report: On 11th September 23, a survey team led by Dr. Mangal Kumar Nayak of Narajol Raj College conducted a survey on mat crafters (mat stick artists/ Madur Kathi Shilpi) of West Midnapure and East Midnapure Districts. IPR Cell, Najole Raj College and Department of Higher Education, Government of West Bengal provided financial support for this work. The survey was conducted on 20 Madur Kathi Shilpi out of 30 Madur Kathi Shilpi who received official GI (Geographical Identification) numbers from the Government.

These thirty Madur Kathi artists live in Sabang, Pingla, Debra, Patashpur and Bhagbanpur Blocks of East and West Mednipur Districts. Apart from this, it was not possible to survey some GI number Madur Kathi artists in Ramnagar, Egra, Balighai and Paniparul in East Mednipur District due to their remote location. However, the survey will be possible with financial help.

#### Here are the details from the artists:

- 1. All said getting a GI number made their business bigger than ever.
- 2. Get regular invitations to fairs, festivals and Government functions at various places in across the State and Country.
- 3 Regularly attend Khadi Exhibitions, Handicraft Fairs yourself.
- 4. More or less financial income has increased.

- 5. Although the demand of the industrial production has increased, the production has not increased in comparison.
- 6. Madur Kathi Shilpi have to take the responsibility for marketing.
- 7. All mat crafters have asked the Government to take responsibility for marketing and exporting their products
- 8. Despite getting GI number, there is shortfall in production due to lack of proper infrastructure.
- 9. They are in financial trouble as there is no cooperative system among themselves.
- 10. Madur Kathi Shilpi can produce quality art materials if they get proper training.
- 11. Many Madur kathi shilpi who receive G I number do not have paved home, there is no system for storing industrial materials.
- 12. Everyone in the family members is involved in the industry.
- 13. Madur Kathi production is the main source of income in almost all artists' families.
- 14. All adult women Shilpi benefited from the Lakshi Bhandar Scheme of Govt. Of West Bengal.

The total number of mat crafters in the survey area is approximate - 1250. No one could say how many of them applied for GI numbers.

Apart from this, the disparity seen in the case of the two Medinipur Districts (Purba & Paschim Medinipur District) is that the mat crafters (Madur Kathi Shilpli) of the West Medinipur District are far behind in terms of finances. There is no artist association of Purba Medinipur District. The Madur Kathi Shilpi' houses were given to West Mednipur by the Government of West Bengal but not to East Mednipur District. There is no infrastructure for mat crafters in this District. Madur Kathi Shilpi of Purba Medinipur District are financially very weak. The Government needs to pay special attention to them. Appropriate measures should be taken to preserve the artist and his/her art materials.

Some pictures from the survey/interview are included here -













No 10 1 24









# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

### Date of Visit: 11/09/2023

১. সাক্ষাৎকার দাতার নাম : তথাত ৮নো স্থানো

२. वग्रनः 36

७. नित्रः अण्टिला

8, শিক্ষাগত যোগ্যতা: 5th pass

a. लम : साप्ट्रें क्लेंकि व्हिल्फी

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : 🔒 🦳

৭. পরিবারের মাধাপিছু আয়: 60,000 (বাজুনু)

৮. বর্তমান বাসস্থাসের অবস্থা : প্রোচ্যী ন

ক, বাঙ়ি পাকা কিনা : স্কাটা বাড়ি

খ, ইপেকট্ৰিক সংযোগ আছে কিনা: 📆 🤇

গ পাকা শৌচাগার আছে কিনা: 🗥

১, রেশন কার্ড আছে কিনা: 📆 🔾

১০. স্বাস্থ্যসাধী কার্ড আছে কিনা: 📆

১১, উদ্যোগ আধার কার্ড আছে কিনা: 📆 🕻

১২. GI registration আছে কিনা: স্ঠাপ

30. GI registration number: AU/7498/GII/567/01

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 🗥 ,

क्ष विभाग नाथ नावहाः जा एक स्ट्राइक्का हं जिल्लाहा कार्य कार्य क्षा कार्याक कार्य कार्याक कार्य कार्याक कार्य - विभाग तथ नावहाः जा एक स्ट्राइक्का हं जिल्लाहा कार्याक कार्य कार्याक कार्याक कार्याक कार्याक कार्याक कार्याक के विभाग नाथ नावहाः जा एक स्ट्राइक्का हं जिल्लाहा कार्याक कार्याक कार्याक कार्याक कार्याक कार्याक कार्याक कार्य

थ. डिश्मन वस तक्छानी द्या किना/ काता तिर काता नाराया कतरहनः न्या, ज्यायकात्री कासी व द्वादा उपाकु ए

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 🏹 🧻

১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

व्यान्त्रिया प्राची

11/9/2023

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

#### Date of Visit: 11/09/2023

১. সাক্ষাৎকার দাতার নাম: ত্যাপেন্সন্য ত্র্যান্য

২. বয়স: 36 ৩. লিম্ব: ১১পিছাপো ৪. শিক্ষাগত যোগ্যতা: 5th pass

a. (मना: साप्ट्रव जािरि किंगार्भ)

७. वनाकात नाम : श्रीहिङ्गा

৭, এলাকার জনসংখ্যা: 1800

৮. চিত্রকর পরিবারের মোট সংখ্যা: ও তান

৯. মহিলা কর্মীর মোট সংখ্যা: । জুন

১০. মহিলারা সকলে 'লক্ষ্মীর ভাগ্রর' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা: 📆)

১১. নাবালক কর্মী আছেন কিনা: 🗥

১২ নাবালক কর্মীরা পড়ান্ডনা করছেন কি না: 🎢

२०. ह्रम्भ बक्षेय विभवन अरकाब कार्या वरूव बाह्य किया। उत्रकामिक कार्य अरहाही व खिलागरण

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 🚡 🕏

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: 🏋

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

१५७/२०२३







# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

#### Date of Visit: 11/09/2023

১. সাক্ষাৎকার দাতার নাম : সেক্ষোবদ ঢ্যানা , 46 বজুব ধিবে সুস্থ লোক্ষা কৃত্যে ভাগিত্য

২. বয়স: 59

७. निष: ऋतुभ

8. निकागंड त्यागुंडाः **(प्राम्हे**भ दुनुनी

a. लमा : गाइवु कारि क्रिलू

७. वनाकात नाम : आर्छा, अवु , लक्किम स्मारिनीमुवू

৭. এলাকার জনসংখ্যা: 1400

৮. চিত্রকর পরিবারের মোট সংখ্যা: 🖇 📆 ম

১, মহিলা কর্মীর মোট সংখ্যা: 4 সুস

১০. মহিলারা সকলে 'লক্ষ্মীর ভাণ্ডার' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা: 107ন

নাবালক কর্মী আছেন কিনা: <del>2 লান</del> না

১২ নাবালক কর্মীরা পড়াগুনা করছেন কি না: না

30. डिलम वहुत विभाग महकांड काला वरून चाह किनाः गुास्तिम् पेराहारा प्रोम्नाहिए किल्नु आप्रमी विमानन वन्तु सम् विमानन माण्यम् किल्ना व्यवस्था विमानन किल्नाराज्य वन्तु स्थारक अम्बद्ध स्थानिक माण्यात् स्थाराज्य स्थाराज्य ,

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 1000 চুন

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: 🗥

Aghok Sona 11,9,2023/



# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

#### Date of Visit: 11/09/2023

, সাকাৎকার দাতার	নাম	कारकाक	काना
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७. लियः स्वर्थ

B. निकागंड त्यागांजाः ट्याद्वीय त्यानी

৫. লেনা: সাচুকু কার্টি ক্লিন্ধ

৬, বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : চুই ন্যুক্ত ক্রিস্থেব্যতা বৃত্ত্বেন

৭. পরিবারের মাথাপিছু আয়: ১৮৫ নাম্ব

৮. वर्ज्यान वामझात्मत व्यवशः ज्ञामीत

ক, বাড়ি পাকা কিনা : হ্রা

খ, ইলেকট্রিক সংযোগ আছে কিনা: ত্র্যা

ণ, পাকা শৌচাগার আছে কিনা: 🔄

৯. রেশন কার্ড আছে কিনা: খ্রী

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 🕏

১১. উদ্যোগ আধার কার্ড আছে কিনা:

১২. GI registration আছে কিনা: খ্রী

30. GI registration number: AU/7499 | 67 | 567 | 2

১৪, GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 🖊 🏲

১৫. विभाग भरकां वर्गनाः गुगळिन७ विद्याति किन तिन का ग्रिप्त क्रिल्मीति दयन वण्य ए या

ক, বিপণন এর ব্যবস্থা: ত্যাট্যে

খ. উৎপন্ন বন্ধ রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন: न्या कित्री प्राप्त अध्यक्ष क्रिक्सीया छात्र कार्या कर्या कर्या क्रिक्सीया छात्र कार्या कर्या कर्या क्रिक्सीया छात्र कार्या क्रिक्सीया छ।

GI Registration नाराम क्रिन्य आपनी

बिक्रिः दादः जात्रिरं जूरिने मारणायाप्,

১৭. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

111912025

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

#### Date of Visit: 11/09/2023

And the Control of th
১. সাক্ষাৎকার দাতার নাম : বিক্তব্যক্তিপুর্বাস্থর
२ रग्नमः 45 ७. निमः भूति म 8. निकाशंड त्याशाङाः 8+h Poss
e. त्या: आम्चिक्विकिक्तिकार्य.
৬. বর্তমান আর্থিক অবস্থা ও অভিরিক্ত আয়ের কোনো উৎস আছে কিনা : স্বাস্ত্র কুতি কিলেকী ব্র ক্রান্সের স্কোর্য ক্র
৭. পরিবারের মাধাপিছু আয়: 10200/~
৮ বর্তমান বাসস্থানের অবস্থা: -০৪ চি তেত্তি,
হ. বাড়ি পাকা কিনা : মৈর্মি,
च. इलक्षिक मश्यान बार्ष्ट किनाः चे कि
গ. পাকা শৌচাগার আছে কিনা: হ্রিটিশ্র
১. রেশন কার্ড আছে কিনা: ১০০০
১০. স্বাস্থ্যসাধী কার্ড আছে কিনা: এ ১১ ১
১১. উদ্যোগ আধার কার্ড আছে কিনা: 👸 😘
১২ GI registration আছে কিনা: 💥 😘
30. GI registration number: AU/ 7500/031/567/3.
১৪. GI registration সক্রোম্ভ কোনো অসুবিধা আছে কিনা: ७३००
28. GI registration नरकाष काला वन्निया वाए किनाः न्तर्ने , 20. विभवन नरकाष वर्षनाः निकालकी (भूक निल्मिक् के प्राप्तिन के प्रिकार्तिक निकालका कार्याक कर्णाक निकालका के विभवन वन्न वन्निक कर्णाक करणात्र कर्णाक कर्णाक करणात्र करणात
क विभवन वत्र वावकाः निकामक्रीक- प्रकालक दिलामान्य कारिकारामान कर्मा
थ. डेश्नम वस त्रकानी दम किना/ काता त्रहे कात्न नाश्य कत्राह्नः अभिकाली किल्ली आर्का कर्नाहुन
১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাঞ্ছেন কিনা: 250 (বিশ্বিক বিশ্বিক বিশ

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১. সাক্ষাংকার দাতার নাম: বিজ্ঞবিত্র চিট্র ,

৩, লিম: প্রিক্রি ৪, শিক্ষাগত যোগ্যতা: 🖋 २ रहनः 45

«. लमा: अग्नु-क्रिकिनिश्मिते,

७. धनाकात्र नाम : अरिकार् में देवारी

৭. এলাকার জনসংখ্যা: 1200 খ27

৮. চিত্রকর পরিবারের মোট সংখ্যা: 5 📆 ,

মহিলা কর্মীর মোট সংখ্যা: 2 আ নি,

১০. মহিলারা সকলে 'লক্ষীর ভাগুর' ফিমের অন্তর্ভুক্ত হরেছেন কিনা: 25%

১১. নাবালক কর্মী আছেন কিনা: ২০০১

১২ নাবালক কর্মারা পড়ান্তনা করছেন কি নাঃ 🔰 🥱

30. छर्पम वहाद विभाग महाता ए काला वहना बाह्र किनाः से हुन्मित का किना ने अन्मिक् निम्लिक मञ्जान्त्र नाममा भाग्नि राज्या द्वार

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 25 তা স

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: তিতি বি

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ : (जी गिक दिश पुर

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त्राकाश्कात माणत नाम : उत्तत क्याला

७. नित्रः भूति भूत्ये 8. निकागं यागां 8th pass

e. लमा: स्राप्ट्रें उत्पृष्ट क्लिक्सी

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : 🍑 🏗 ঽ

৭, পরিবারের মাথাপিছু আয়: 10 😕 🖂 🌂

৮. বর্তমান বাসস্থানের অবস্থা : গ্রোহ্বাসম্বেরুলা

क. वाष्ट्र भाका किना : ता, केतिया दि

খ, ইলেকট্রিক সংযোগ আছে কিনা: 📆 🏋

গ. পাকা শৌচাগার আছে কিনা:

৯. রেশন কার্ড আছে কিনা:

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: ত্রাভেচ

১১. উদ্যোগ আধার কার্ড আছে কিনা: ত্রাটেচু / স্থা

১২. GI registration আছে কিনা: ত্রা

30. GI registration number: AU/7501/GII/567/4

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 📆

১৫. विभवन সংক্রান্ত বর্ণনা: 'ভিলেশ সাহাসী देखनं পরে 'ভিলেশীকে নিজ্ ঔদ্যোগে বিভিন্ন বাতার, স্বাত্য এবং স্বাহ্য্যের বর্ণনা: ভিলেশ সাহাসী বিজ্ঞান পরে ভিলেশীকে নিজ্ ঔদ্যোগে বিভিন্ন বাতার, স্বাত্য এবং

ক, বিপণন এর ব্যবস্থা: তথাচেচু, কিন্তু খ্রাফ্রিগত উদ্যোগে।

খ উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায় করছেন: ব্পুর্থনীব ব্যবদ্যা ভাগতে কিন্তু এতেওে তিবিনে কিন্তু সম্প্রবাহী কিল্প্টাপিণ নিন্দ্ ওমক উদ্যোগি ব্যবদা

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা:

১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিপ ;



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). माक्कारकात माजत नाम : Torher मुल्ला

২, বয়স: 46 ৩. লিঙ্গ:

७. नित्रः श्रुव्स

8. শিক্ষাগত যোগ্যতা: 8th pass

०. लमा: साहुन काहि किलानी,

७. वनाकात नाम : नुष्टेतात, अवर, अक्रिका द्याभितीयून्

৭, এলাকার জনসংখ্যা: 22,00

৮. চিত্রকর পরিবারের মোট সংখ্যা: 🕻 তুর

৯. মহিলা কর্মীর মোট সংখ্যা: ও ত্রিন

১০. মহিলারা সকলে 'লক্ষ্মীর ভাগ্যার' স্ক্রিমের অন্তর্ভুক্ত হয়েছেন কিনা: ত্র্যা /2 ত্রিন

১১. নাবালক কর্মী আছেন কিনা: 🙃

১২. নাবালক কর্মীরা পড়াগুনা করছেন কি না: 🥂

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

tha Hall.

Std act 27-11-2014

N E.C. (MAT)

Theo 3-015-2014-15 196.

Tonan Sahama asschim Melining

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	11
১. সাক্ষাৎকার দাতার নাম :	ट्यीबीवरला नाम.

২. বয়স: 65 ৩. লিফ: স্পান্তিলা ৪. শিক্ষাগত যোগ্যতা: ১৮৮ Pass

a. लगः अपनुत्र किरकारी,

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : সিম্প্রিক স্বর্জন

৭. পরিবারের মাথাপিছু আয়: 60 2 000

৮. বর্তমান বাসস্থানের অবস্থা : স্পান্সী স

ः. वाड़ि भाका किना : अंद्राप्तानि

খ, ইলেকট্রিক সংযোগ আছে কিনা: 🏚 🦙

গ. পাকা শৌচাগার আছে কিনা: 🎞 📉

৯. রেশন কার্ড আছে কিনা: 🎒 ্

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 🕉 🐍

১১. উদ্যোগ আধার কার্ড আছে কিনা: 🖄 🃉

১২ GI registration আছে কিনা: ঽ১১১

30. GI registration number: AU 7502 GI 567 5

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: রিশ, ১৫. বিপণন সংক্রান্ত বর্ণনা: বিস্কৃতির কিনা বর্ণনা: -मामिक्का कार्मिक कार्मित के स्वार्ट लाराम्य ,

ক, বিপণন এর ব্যবস্থা: উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন:

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা:

-निर्देशक मित्रिर आहेरा

১৭. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

ट्यामी अल्ला परम् -

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১. সাক্ষাংকার দাতার নাম: ব্রুপ্রস্কুর্রান্সিস্ট্রেস্

२. वग्रमः 65 ७. लिमः मित्रिक्ता ४. निकाग्ठ त्याग्याः ८४ मे २०७७ १. (१९गा: मित्रुस्वमाणि किल्लिस)

৬. এলাকার নাম : স্পর্টি হ

৭. এলাকার জনসংখ্যা: 1400 छ्रित ।

৮. চিত্রকর পরিবারের মোট সংখ্যা: 2 🔊 🕏

৯. মহিলা কর্মীর মোট সংখ্যা: 1 তার

১০. মহিলারা সকলে 'লক্ষীর ভাগুর' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা: 🎞 🛴

১১. নাবালক কর্মী আছেন কিনা:

১১ নাবালক কর্মীরা পড়ান্তনা করছেন কি না: 🕂 🕻

১৩. छरभन्न वखत्र विभाग मध्काख कात्ना वक्तवा व्याह्म किनाः उत्र रिमिन्न न्याक्ति न वाक्तिन्तुः তাম্পত্র,

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 40 তি ন

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: Gমাকেসন নের

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

- Myn Moor Layer





### Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Held Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur Date of Visit: 11/09/2023

१ नवन 'दि । ७ मानः द्वानेता मामन व्यामनः किर्मान a com sell his bally

४. वनावात जागाः स्ट्रीरिक (च उर्वुस) ५. वनावात जागाःवाः १७७ ।

- छ छितकत भविनास्त्रत स्माप्त गश्माः 😸
- तिक्या क्योंन (गाँ। गश्या)
- ५०, महिलाबा मकरण 'मकीब काखब' किर्दांत खबईक ब्रह्मारका कियां। र्रे 🕂 .
- ५५, गानागक कर्ती आएका किया:
- ১৯. পারাপক কর্মারা পদ্ধারণা করছেন কি মাঃ 🐴 🎖 🤇 १२ इरम्स थर्थ स्थलत अहणत हमाता बक्ता लात्क क्या - प्रच्याक क्या कर क्या हमात कर हमात है। ज्या हमात हमात हमात हमात - 11 storb. - rebachders, - (412. 3 (2)
- SB. CA registration छोड़े काम निश्चान महत्ताः 🖔 (ि एर्ने न
- 54. Gi registration आजनम काती गिक्षीत जल्ला।

[24] 4 x3) 05 294.

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

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). माक्सरकात माणात नाम : हार कि अपने अपने प्रकार
२. वग्रतः ४४ ०. वित्रः द्वारिका ६. विकाशंड त्याशांडाः प्राप्ति वित्र -
e. त्याः आप्रेश्रिक्टिं
৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : 🕑 🏋 🖰
৭. পরিবারের মাথাপিছু আয়: 20,০০০/০।
৮. বর্তমান বাসস্থানের অবস্থা : ৩৫৫ কোনি
क. वाड़ि भाका किंगा : <b>्रिक</b> ,
খ. ইলেকট্রিক সংযোগ আছে কিনা: 🕒 ১৯ 🖒 🖟
গ. পাকা শৌচাগার আছে কিনা:
১. রেশন কার্ড আছে কিনা: ৩ xx (১৮)
১০. স্বাস্থ্যসাধী কার্ড আছে কিনা: ১০০ তি বিশ্ব
১১. উদ্যোগ আধার কার্ড আছে কিনা:
১২ GI registration আছে কিনা: তেপেটে 1
30. GI registration number;
১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা:
२४. विभवन महकान वर्तनाः निकालक्षित्रक् निता वर्गावना वाहि विनाः (17)
* Lader of alastic - word with the Living the strain of the world of the strain of the
थ. डेश्नन्न वह बक्कानी रम किना/ काबा त्मरे कात्न माश्रम कब्राहनः २ म, हिन्दी किन्द्रिक
थ. डेश्भन्न वह बक्कानी रम किना/ कावा त्मरें कात्व भाश्यम कवाह्म : 2 में हिन किना किना किना किना किना किना किना कि
১৭. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ:

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١.	সাক্ষাৎকার	দাতার	नाम	:	भा	54	Bo	म्पून	न्द्री	2505
To					(2)		<b>–</b> ,			

o. निवः विक्नुप 8. निकायह त्याग्रहाः 8th Pass

e. (नना: अत्युक्त विकास करो

বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোলো উৎস আছে কিনা : ১০০০ বুল সকাতি কিন্দের।

৭. পরিবারের মাথাপিছু আয়: 10,000 /-

b. वर्षमान वामहालात खवहा : 🖈 विश्वविकारिक,

ক, বাড়ি পাকা কিনা :

খ, ইলেকট্রিক সংযোগ আছে কিনা: ১১১১

গ, পাকা শৌচাগার আছে কিনা:

১. রেশন কার্ড আছে কিনা:

১০, স্বাস্থ্যসাধী কার্ড আছে কিনা: 🏂 🏋

১১. উদ্যোগ আধার কার্ড আছে কিনা: 🍳 🍞 ১

১২ GI registration আছে কিনা:

30. GI registration number: AU | 7504 | GI | 567 | 7

३८. GI registration मध्याख काला खन्निश बाह्य किंगाः चित्रे,
३८. विभाग मध्याख वर्गमाः चित्रा मिद्रा प्रिंग चित्रे च्या कि । र्ष्या कर्म के विभाग के

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাঞ্ছেন কিনা: মা, স্যানিমু এতি সুবি কি

श्चिम्मर्थं, प्रकेश्य क्रिसिम अर्थिम्स्य क्रिस्ताम् रासिय क्रियां मानि

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১. সাক্ষাৎকার দাতার নাম: সামের স্থ্রস্পার্ট্ স্নী সর্প্র

২, বয়স: 48 ৩. লিস: ১৯৯ শ ৪. শিক্ষাগত যোগ্যতা: স্থান ৮ প্র

Minasher-Burby-

७. थनाकांत्र नाम : या विक् ( कि पिट्र -

৭. এলাকার জনসংখ্যা: 250 অসু ন

৮. চিত্রকর পরিবারের মোট সংখ্যা: 4 পুর

৯. মহিলা কর্মীর মোট সংখ্যা: 2 ৫০ ন

১০. মহিলারা সকলে 'লক্ষীর ভাগুর' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা: 25 🔨

১১. নাবালক কর্মী আছেন কিনা: 🛕 🗝 🗷

১২, নাবালক কর্মীরা পড়াগুনা করছেন কি না: 256

क्रिक्सिएंडे ठाली-सामिलं ১৩. উৎপন্ন বস্তুর বিপণন সংক্রান্ত কোনো বক্তব্য আছে কিনা: स्थि टार्ट सर्वेक्संटिल स्थि रे

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 🕇 ০ 📆 ২৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: ক্রিকে বিশ্বস্থিত

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

THA FOR MADE PHIL

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). त्राक्षारकात माणत नाम : क्रिकेटिक्टर प्रार्थ
२. वयमः 48 ७. निमः सूत्रभ ८. निम्नागं त्यागाणः भी कि दिन
e. लगा : प्राप्तृत् दगाि किलू
৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : 🔏
৭. পরিবারের মাথাপিছু আয়: 10100/
৮. বর্তমান বাসস্থানের অবস্থা : স্মামেন
ক. বাড়ি পাকা কিনা : মিট
খ. ইলেকট্রিক সংযোগ আছে কিনা: 🎒
গ. পাকা শৌচাগার আছে কিনা: হুঁয়া
৯. রেশন কার্ড আছে কিনা: न्द्री।
১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: স্ক্রী
১১. উদ্যোগ আধার কার্ড আছে কিনা: 🕏
১২. GI registration আছে কিনা: স্থ্যা
30. GI registration number: AU/7506/GI/567/9
১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: শা
38. GI registration अर्थनिक स्थान के क्या के किला के किला क्या किला क्या के किला क्या के किला क्या के किला क्या किला किला किला किला किला किला किला किल
क. विभाग धत्र वावशः लाए
খ. উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন: খ্যা, তার্বাট্টা ব্রুমটারী ক্লিক্সেট্টা কর

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা:🖊 🕇

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১. সাক্ষাৎকার দাতার নাম : নেক্সু কান্য তাত্ত্ব

২. বয়স: 48

৩. লিঙ্গ: ন্সুবুত্র

৪. শিক্ষাগত যোগ্যতা: স্মান্যামিক

a. लगा : जापूर् स्मित्

७. धनाकात नाम : वए द्वादाएं।, ज्यवः, लक्टिम दम्मिन्

৭. এলাকার জনসংখ্যা: 🛘 🛱 🗸 🗷 📆 🛪

৮. চিত্রকর পরিবারের মোট সংখ্যা: 🔓 🗘 🕽

৯. মহিলা কর্মীর মোট সংখ্যা: 2 টি ব

১০. মহিলারা সকলে 'লক্ষীর ভাণ্ডার' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা: 25%

১১. নাবালক কর্মী আছেন কিনা: 🐠

১২, নাবালক কর্মীরা পড়াগুনা করছেন কি না: 🞢

১७. উৎপদ্ম वस्त विभाग अहकार्ष काता वक्त बाह्य किनाः रिष्ट्रमाति क्वित्य जामग्री विनेत (तव ज्याप्तून ) भाषित्र जार्त्वनावी / रकार्व्यनावि चेराजा हम मासिताता वावरण द्वार ।

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 15 777

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: 🔊

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

018817 76704 3473 41/09/2023

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১. माकाश्कात माणत नाम : त्याप्रीदानी सूता

७. निष: यशिला

৪. শিক্ষাগত যোগ্যতা: স্মাব্যমিত

e. (भग : त्याकु कारि किसी

कारि कृष्म विकेत्र आर्ये व्यापा प्रेश दन्दी ৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : স্মাচুকু

৭, পরিবারের মাথাপিছু আয়: 10,000

৮. वर्डमान वामहाजात व्यवहा : ज्याभाग्रहरू

क. बाड़ि भाका किना : आदि वापि

খ, ইলেকট্রিক সংযোগ আছে কিনা:

গ, পাকা শৌচাগার আছে কিনা:

৯. রেশন কার্ড আছে কিনা:

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা;

১১. উদ্যোগ আধার কার্ড আছে কিনা:

১২ GI registration पाए किना:

>>. GI registration number: 1 AU/7507/G1/567/10

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: না

১৫. विभवन मरकार वर्गनाः क्रिन्स आप्रमू रिएस्विमरव क्रिन्मीरक निक टोरामा विस्ति वाणाव, वाणा द्वार वाराप्य वारीद वापनए- वाद्यम् विकासिक क्रवाच यम्

क. विभाग ध्रेत वावशः कार्ष्य क्रियाफित्र वेदानात

খ. উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন: বুদ্ধানির ব্যুড্যা স্থোড় ১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: व्यदिष्या निट्यं इक्क प्रेस्तारम् व्यव

১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :







## Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur Date of Visit: 11/09/2023

১. সাক্ষাংকার দাতার নাম : त्म्यश्लादानी সুনা।

७. निष: 'प्रश्लि।

৪. শিহ্নাগত যোগ্যতা: মাব্যামি

e. लन : त्राकृष् वगरि किली

७. बनाकाड नाम : द्रारोतात , उपकुं , लक्किस स्मिनिह

৭. এলাকার জনসংখ্যা: 2200

৮. চিত্রকর পরিবারের মোট সংখ্যা: 5 সেন

भश्नि क्याँद (भाँठ मश्या: 3 ए) न

- ১০. মহিলারা সকলে 'লক্ষীর ভাগ্রর' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা:
- ১১. নাবালক কর্মী আছেন কিনা: 🗥

**১২ নাবালক কর্মীরা পড়াগুনা কুরছেন কি নাঃ রা** 

১০. উৎপদ্ন বস্তুর বিপণন সংক্রান্ত কোনো বক্তব্য আছে কিনা: সোম্বা চাই বস্তুলাদিত ফ্রিম্ন আমৃদ্রা বিন্দান অসুস্মানু जार किंद्र नामिष्ट अवकावक निरम एएला, जारल क्लिम अपुत्रान वागिक वागिक रे हुन जामक चार्निकरों जानिक दिक त्याक त्याक त्याक है। इन हुन अरकारी क्रिलीक दनकात मुक्श्रा नाए ,

28. GI registration तरे धमन निहीत मश्याः 180 एम (Maa Bagaladevi Mat Weaving) उन्होनान, उनवु

১৫. GI registration আবেদন কারী শিল্পীর সংখা: 20 সূস

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Lakshmi Rahi Mula

## Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur Date of Visit: 11/09/2023

১ সাকাংকার দাতার নাম: শেসান্ত্রী-প্রার্থী

२. वऱमः 42 ७. नित्रः ग्रिशी

৪. শিক্ষাগত যোগ্যতা: 366

a. लना : त्रापूर् कार्कि किलू

৬. এলাকার নাম : বার্টাসারা

৭. এলাকার জনসংখ্যা: 1200 টাস

৮. চিত্রকর পরিবারের মোট সংখ্যা: 👃 🗘 🛪

মহিলা কর্মার মোট সংখ্যা: 2 % ন

১০. মহিলারা সকলে 'লক্ষ্মীর ভাগ্তার' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা:

১১. নাবানক কর্মী আছেন কিনা: 🛕

১২ নাবালক কর্মীরা পড়ান্ডনা করছেন কি না: 25%

১৩. डेश्पन्न वस्त्र विभाग महकाल काता वरूवा আছে किनाः - रिष्ट्रनाष्ट्रिक स्ना आम्त्रीव विस्ताति नामुखाव अवविषावत निह्ण श्रुव,

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 30 চার্ম

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা:

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Lakshmi Sahos 11.10.2023

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১. नाकारकांद्र मायद नाम : त्यद्रश्ली आ3

o. नित्रः स्मित्रेता

शिकांशंक त्यांशंकाः विस्तु अति। भिक्

e. लन : **माइ**ब्*वगिरि मि*ल्ली

ধ্রতমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোলো উৎস আছে কিনা : নি)

৭. পরিবারের মাথাপিছু আয়: 🔬 🗸 🗘 🤈 🗸 🔾 🕽

৮ বর্তমন বাসহতার অবহা: সুদ্রৌম

द, राड़ि शाका किना : ति ,

ৰ, ইলেকট্ৰিক সংযোগ আছে কিনা: ঠ্ৰী 🏹

গ, পাকা শৌচাগার আছে কিনা: 💥 🕻

১. বেশন কার্চ আছে কিনা: ই11

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 🌱

১১. উদোগ আধার কার্ড আছে কিনা: 🖄

১২ GI registration আছে কিনা: খ্রা

30. Gl registration number:

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: না

১৫. दिश्यन मध्याः वर्षनाः मिश्लीरात् निर्यावृत्वेरातुष्टात् वेतुनातिः मिल्ला आप्रमी विन्ननरम् नाष्ट्रिष्ट वद्रन वण्वरः द्राः, विनेन(मव् माष्ट्रिः) सर्वकावि या रवप्रवृक्षावि विरातुष्टम् नाविशानिक द्राम जमाभिक स्पष्ट्रन्य प्राप्तिक स्पष्ट्रन्य प्राप्तिक स्पष्ट्रन्य प्राप्तिक स्पष्ट्रन्य स्व

ब, डेश्यनन यह दक्यानी द्य किना/ कादा त्रारं कात्म माश्य कदाहनः हो। , अनुपार्ग रामी माग् रेमहुन्छ

১৮. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 🔏

১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Lakehi Sahoo 11.10.2023



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১. সাক্ষাৎকার দাতার নাম : শ্রুপ্রক্র বার্নী দর্ত

२. वग्नन: 37

७. नित्रः मिन्ना

৪. শিক্ষাগত যোগাতা: সামুস ক্রে

a. लना : त्राहु वृ ववारि क्रिन्द्री

৬. বর্তুমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : 🕏

৭. পরিবারের মাথাপিছু আয়: 4 সাবীত

৮. বর্তমান বাসস্থানের অবস্থা: সুমৌন

ক, বাড়ি পাকা কিনা : সুঁটা

খ. ইলেকট্রিক সংযোগ আছে কিনা: 📆

গ. পাকা শৌচাগার আছে কিনা: সা

৯. রেশন কার্ড আছে কিনা: 🕺

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: স্ক্রী

১১. উদ্যোগ আধার কার্ড আছে কিনা: 🙄

১২ GI registration আছে কিনা: 뉡

30. GI registration number: AU/7503/61/567/12

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 🙃

১৫. विभवन महकान वर्गनाः क्रिल्ल्लीहरू निर्धान विद्यापाद विद्यापाद क्रिल्ल्ला क्रिक्ट क्रिक क्रिक्ट क्रिक्ट क्रिक्ट क्रिक्ट क्रिक्ट क्रिक्ट क्रिक क्रिक क्रिक्ट क्रिक क्रिक क्रिक्ट क्रिक क्रि

ক. বিপণন এর ব্যবস্থা: ত্রাডের

খ, উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন: স্থা সোচ্চে কক্ষে বস্না দুয়া

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 📆

১৭ সাক্ষাংকার দাতার স্বাক্তর ও তারিখ :

धुड्डेन मनी पत्त



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১. সাক্ষাংকার দাতার নাম : সূত্রনা দুট

२, बद्रमः ३२

७. निष: मिश्रिमा

৪. শিক্ষাগত যোগতা: অনুস কে

e. लन : प्राइव् वराषि सिन्धी

७. वनाकात नाम : निर्देश मनप्राप्ति।

৭. এশকার জনসংখ্যা: 706 এন

৮. চিত্রকর পরিবারের মোট সংখ্যা: 5 ট্রান

মহিলা কর্মীর মোট সংখ্যা: 2 ব)ন

১০. মহিলারা সকলে 'লন্ধীর ভাগুর' কিমের অন্তর্ভুক্ত হয়েছেন কিন

১১. নাবালক কর্মী আছেন কিনা: নি

১২ নবালক কর্মীরা পড়াঙ্কনা করছেন কি নাঃ না

30. डेश्नम रखंद विभाग अरद्धां काला रङ्ख चाह किनाः सिद्धां मिए झना आम्प्रोव मामुनाव स्वतान का मिए २ रव ,

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 35 সেন

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: না

১৬. সাক্ষাৎকার দাতার স্বাক্তর ও তারিখ :

11/9/26





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). সাক্ষাৎকার দাতার নাম : - (A Caraffed This

২. বয়স: "🕇 🛈

৩. লিঙ্গ: ক্সবুপ্র

৪, শিক্ষাগত যোগ্যতা: তিটেয়

कार्ष्टिय हम्रेने)

e. (भग : सामुक् कारि ने के लू

७. वनाकात नाम : ह आठा , ज्या , ज्राब्किम दम्मिन

৭. এলাকার জনসংখ্যা: 14 00 তার

৮. চিত্রকর পরিবারের মোট সংখ্যা: 2

৯. মহিলা কর্মীর মোট সংখ্যা: 👤

১০. মহিলারা সকলে 'লক্ষীর ভাগুর' ক্লিমের অন্তর্ভুক্ত হয়েছেন কিনা: ガ

১১. নাবালক কর্মী আছেন কিনা: 🔏 🕇

১২ নাবালক কর্মীরা পড়ান্ডনা করছেন কি নাঃ 🞢

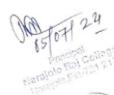
১৩. উৎপদ वस्त विभवन अध्कार काला वरूव আছে किनाः रिष्टुलािक फिन्न ज्याप्रजीव रिलेनरमू उन्धूत

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 🖊

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: 🞢

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিপ ;

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১. সাক্ষাংকার দাতার নাম: নিঞ্জিকান্ত চাম

७. नित्रः मुहुष्ट

৪. শিক্ষাগত যোগ্যতা: ভ্রামুধ্ব স্ক্রের

e. लन : माहूव वगरिकिय

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : At

৭. পরিবারের মাধাপিছু আয়: 60,000

b. दर्ध्यान वाम्हात्मद्र वदश : न्नाप्री*त* 

হ, বড়ি পাকা কিনা : 🕰

<. ইলেকট্রিক সংযোগ আছে কিনা: স্থা

গ, পাকা শৌসগার আছে কিনা: 📆

১. বেশন কাৰ্ভ আছে কিনা: 📆

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: স্থ্রী

১১. উদ্যোগ আধার কার্ভ আছে কিনা: সাঁ

১২ GI registration আছে কিনা: স্থ্রী

So. GI registration number, AU/7510/GI/567/13

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 🞢

28. GI registration मह्बार काला बम्बिश बाह्य किनाः मा 24. विश्वन मह्बार मिल्ली (तर् निर्ण्ड पेरा) किली हिंदी किला आमूर्त निर्ण्य के स्वाप्त काणि के स्वाप्त के स्वा ক, বিপণন এর ব্যবস্থা: **ত্রেপ্রে**ট্র

र. डेश्नन्न रह दक्कानी रह किना/ काहा त्नरे काट्स नाशस कहाइनः मुँग, स्मूलार्क क्रिया

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 🤾

১৭. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Wishi Konta Dms 11 /09/2023

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১. সাক্ষাৎকার দাতার নাম : স্বায়ীনুনাম প্রড়ারত

২. বয়স: 54

৪. শিক্ষাগত যোগ্যতা: মার্ক্যমিক

a. (लमा : प्राह्त्यू रमिष्ट्री क्लिज़ी

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা :

৭. পরিবারের মাথাপিছু আয়: 🚄 হ্লাট্টাকু

৮ বর্তমান বাসস্থানের অবস্থা : ক্লামৌন

ক, বাড়ি পাকা কিনা : ঠ্রা

খ. ইলেকট্রিক সংযোগ আছে কিনা: 📆

গ, পাকা শৌচাগার আছে কিনা: 🏻 🏹

৯. রেশন কার্ড আছে কিনা: হুঁয়া

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 💆

১১. উদ্যোগ আধার কার্ড আছে কিনা: 📆

১২. GI registration আছে কিনা: 💝া

১৩. GI registration number: AU/7513/61/567/16

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: না

১৫. विभाग महकां वर्गनाः क्रिल्वीदाव निराम विद्यामान विद्यामि क्रिल् ज्यामनी विन्नात्म नाणिक वर्ग वर्ग्वरण २४, विन्नात्म काणिक व्यवकावि। रकारवृत्यावि विद्यामिक विद्यामिक स्थानिक स्थानिक व्यवकार्यक व्यवकार्यक विभाग वर्षे

খ. উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন: হ্যা , সোচ্চে

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 🧚

১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Saedin fra Credhin

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur Date of Visit: 11/09/2023

> सक्तरकर महर नरः संवीद्रनात्र गुप्रदेख

e. ora : जाजू क्वारी निकाली

% काळ्ड नाम : सार्गाप्तीसम्बीत सम्बोद्धान , प्रसादि ज्यादा

a was some two of

v. to care sharing one may: 3 The

ু মহল কমিত সোট সংখ্য: 2 বচুন

yr. মাজনার সমস্য সম্বীর ভারত বিষয়ের অভতিও হয়েছেন বিনাং 🕏

🕉 नानक क्याँ प्राप्टन किनाः नी

😭 मनकर कींचा शहूका इंदरम कि माः हा अर क्रम्ब बर्वर विकास अरक्षक काला वरून बार क्या निर्धाति अर्था आरोपीय होते हैं विदेश वार्य वार्य देश

अ. G. १७३६वरअरोक्स अडे अपन निकेश महत्त्वः । हि एउन

अ. अ स्कूडिस्स्राज्य व्याजन क्रीत निकेष भएकः मा

১৬, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিধ :

Saedin dra Cuelhaid 11/9/23

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১. সাক্ষংকার দাতার নাম : স্বার্থকারী স্ফার্মের,

२. रहनः 44 ७. नित्रः अश्चित्री ४ ४. मिक्नागा यागाणः प्रमीरी ४ अस

e. लन : भाभून कारि कि। त्रों,

७. बनाकाड नाम: वर्ष कर शिक्ष

9. এলাকার জনসংখা: 17 00 <sup>40</sup> 🗡

৮. চিত্রকর পরিবারের মোট সংখ্যা: 🤰 🎾 🗗

১. মহিলা কর্মীর মোট সংখ্যা: 1 19 রী

১০. মহিলারা সকলে 'লক্ষীর ভাগ্মর' ফ্রিমের অন্তর্ভুক্ত হয়েছেন কিনা:

১১. নাবালক কর্মী আছেন কিনা: 🏋

১১, নাবালক কর্মীরা পড়াঙনা করছেন কি না: 🔭

मार्कियान्य प्राप्ति त्रिक्याक्षेत्र प्रतिकार्याक्षेत्र प्रतिभारिक अपितिकार्याक्षेत्र प्रतिभारिक अपितिकार्याक्षेत्र प्रतिभारिक अपितिकार्याक्षेत्र प्रतिभारिक अपितिकार्याक्षेत्र प्रतिभारिक अपितिकार्याक्षेत्र अपितिकार अपितिकार्याक्षेत्र अपितिकार अपितिकार्याक्षेत्र अपितिकार अपितिकार्याक्षेत्र अपितिकार अपितिकार अपितिकार्याक्षेत्र अपितिकार अपि

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 20

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: ব্রেকিট লেই,

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :
ক্রমান্ত্রকার ক্রমান্ত্রকার

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১. সাক্ষাৎকার দাতার নাম : প্রতিপ্রসূত্রী ত্রাসি	9 05
२. वग्रम: 44 ७. निम: अ 2 AT 8. निकांगे त्यांगांठा: फिर	के अपने भू अद्भु .
8. COM : Set Description & what,	myo osto Binet,
৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা :	71 40 00 100 100 10 11 V
৭. পরিবারের মাথাপিছু আয়: 10,000	
b. वर्णान वामश्चातत ववश्च : नामान्न न न्या त्याकते में	
ক, বাড়ি পাকা কিনা : 🔏	<b>Y</b>
খ. ইলেকট্রিক সংযোগ আছে কিনা: 🕉 🚺	
গ, পাকা শৌচাগার আছে কিনা: ২১৫১	1507 25
৯. রেশন কার্ড আছে কিনা: ঽ৾ৢৢ৴	Paralolo College
১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 🏖 🔨	RAJCA
১১. উদ্যোগ আধার কার্ড আছে কিনা: 🌂 🔨	DA SON ASSOCIATION OF THE PARTY
১২. GI registration আছে কিনা: ২০০১	ATI
30. GI registration number: AU   7514   CaI   567	34
১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা:	12 देशकार के प्राथमी कार्या
১৪. GI registration সংক্রান্ত কোনো অস্বিধা আছে কিনা: নি বিশাল করেনা: নিজ্ঞান্ত কোনো অস্বিধা আছে কিনা: নিজ্ঞান্ত করেনা)  ১৫. বিপণন সংক্রান্ত বর্ণনা: নিজ্ঞান্ত নিজ্ঞান্ত করেনা  ক. বিপণন এর ব্যবস্থা: নিজ্ঞান্ত নিজ্ঞান্ত করিলা  খ. উৎপন্ন বস্ত রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন: ন্ম ব্রু স	2 10(2, 22) Low w( 40,
क. विभाग धत्र वावशः नामान्य प्रतिकारिक कर	LIVE ANY SE JOURNA
খ. উৎপন্ন বন্ত রফতানী হয় কিনা/ কার্রী সেই কাজে সাহায্য করছেন: — প্রসূত্র	ury wway was piar
১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 🔭	Blooder Gudente
> ज्लार्द्र,	১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :
/ 511(5)	अद्भेष क्ष्य

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

## Date of Visit: 11/09/2023

). भाकारकात माणत माम : (अपिश क्रियोन
>. नामाश्कात माणत माम : कि निम प्र कि निमाण सांगाण: कराकि कि कि कि
a. (4) : 37 - DO - (B) MAT,
৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : ১ ১ ১ ০ - ১৯ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১ ১
৭, পরিবারের মাথাপিছু আয়: ২০ , ০০০ -
b. वर्डभाग बामझात्मत खबझा: न्याभी है।
क. बाढ़ भाका किना : अति प्रेन्
খ, হলেকট্রিক সংযোগ আছে কিনা: विजे ।
গ. পাকা শৌচাগার আছে কিনা: প্রত্যুক্তি
b. त्रगन कार्ड थाए किना: निर्मा
১০, স্বাস্থ্যসাধী কার্ড আছে কিনা: ১০০
১১. উদ্যোগ আধার কার্ড আছে কিনা: ২০০
St. GI registration with farm: 2500
so. GI registration number: AU 7516   GI I   567 / 19
38. GI registration मध्याय कांगा वमृतिधा व्याद्य किनाः नित्
>८. विश्वन मध्याक वर्तनाः न्या अन्तर्मा निर्दाकार्यान् वर्तनाः न्या अन्तर्मा निर्दाकार्यान् वर्तनाः न्या अन्तर्मा
क विश्वन पत्र वावशः -िल्लालिक - नार्मिल - नार्मिल क्रिक्स न्यामान्य न्यामान्य न्यामान्य न्यामान्य न्यामान्य
थ. डिस्मन्न वस त्रम्छाना दर्रा किना/ काता त्मर काता त्मर काता नार्य के मार्थित मार्थित काता त्मर काता त्मर काता
১৬. GI registration थाकात मक्रम खारात काटना विरमय त्रविधा भारण्डन किनाः अविवेद Kumar Jana.
र १ ति है । २०, ०९ २० ५१, त्रीकाश्कात माणत योकत ७ जीत्रथ :

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

### Date of Visit: 11/09/2023

). माकाश्कात माणत नाम : जिल्लाम कु भार खुन मा,

२. वरामः ८८ ७. निमः प्रतिमे, ४. निमागण त्यागाणः भायः १. लगाः भारति

७. वनाकात नाम : विकिश्व एव-पूर्व

৭. এলাকার জনসংখ্যা: 🛮 🐧 চ ত 📆 🗟 🔾

৮. চিত্রকর পরিবারের মোট সংখ্যা: 🕱 📆 🛪

মহিলা কর্মীর মোট সংখা;

১০. মহিলারা সকলে 'লক্ষীর ভাগ্রার' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা: 🌂 🌱

১১. নাবালক কর্মী আছেন কিনা: 🗡

১২. নাবালক কর্মীরা পড়াখনা করছেন কি না: 🎞 🖰

১৩. উৎপন্ন বস্তুর বিপণন সংক্রান্ত কোনো বক্তব্য আছে কিনা: ১১ ৪৫ নি ত্র পার্কিত পার্কাত স্থান স্মার্ক নিকর সাংক্র यां अलक त्सक्वराकेक न्यां अव

96 og 2. ১৪. GI registration নেই এমন শিল্পীর সংখ্যা:

TY ১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা:

Japas Kumal Jona.

১৬, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

### Field Visit done by IFR Cell, Narajole Raj College, Narajole, Paschim Medinipur

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१ मक्तरवाद मावाद नय: १ शिविशू- - भाभागर्ड

৪. শিক্ষণত যোগাতা:

e. ला: भाभूत्र का कि किल्मिन

७. बनाकार नाय: न्यों किहा (टा<mark>फ</mark>़ि) ,

९ अनकार कनमस्याः 250 व्यूटि ।

৮, চিত্রকর পরিবারের মোট সংখা: 5 টে2ুর্নি

महिला क्यीड (याँठ मरणा: 2 प्राप्ति)

১০. মহিলারা সকলে ক্ষরীর ভাষার' ছিমের অভর্তৃক্ত হয়েছেন কিনা 257

১৯ নাবাদক কমী আছেন কিনা: 💃 🗘 🔏

১২ নাবালক কমীরা পড়াজনা করছেন কি নঃ 💥 🕉

१० इरना रहर दुन्तन प्रत्याव काटन वाक हनः दुरेका सिन् काटी -त्राश्मिनं - प्रत्येखीं Notalia (02 - Divising mosto. 2101

১৪. GI registration নেই এমন শিল্পীর সংখা: 60 ৫০,৯ ১৫. GI registration আবেদন কারী শিল্পীর সংখা: "বিক্রমি (সুরু

১৬. সাহ্বাৎকার দাতার স্বাহ্নর ও তারিখ : aley sur?

11/03/2023





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#### Date of Visit: 11/09/2023

à सक्तरबाद नवाद नमः श्विति प्राप्तिक ৫ নিজ: পুরুপুর্ব ৪. শিক্ষাগত যোগ্যতা: স্কুত্রবর্ত , : en 33 ह स्ताः अन्यूष्ट्रिक्ट्याक्षितिक्षी ২ বর্তমন মাধিক ববস্তা ও অভিনিক্ত মান্তের কোনো উৎস আছে কিনা : বিশ্বি ২ বর্তমনে মাধিক ববস্তা ও অভিনিক্ত মান্তের কোনো উৎস আছে কিনা : বিশ্বি a स्वयन वनक्षान्त वन्त्र : शास्त्राणाद्य পু পুরু শৌনসর আছে বিদাং 🔏 🕻 ৯ ক্ৰেন্দ্ৰ বাৰ্ড আছে বিলঃ 🕰 शक्रमधै कर्ड बाद्य किनाः 🏂 🕞 🗠 উলোগ আধার কার্ড আছে কিলা: 🕎 🕞 🔀 ता registration बाद्य किनाः 💥 🗘 = G registration number: AU/ 7519/GIJ 567/22 व डिल्नान्न वह तक्ष्यमे दर किना/ काता टारें काटक नाशया कतटकाः भग्ने कराहिन किरास्त्री भागर दे शाया है। 🗠 🛈 শ্রেরার্যাক্রা বারার করল আরের কোনো বিশেষ সুবিধা পাছেন কিনা: রিং, স্প্রাপক্তি মণ্ড সুপিন্তির ১৭. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ : 11/02/5033 Lemes lesso

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১. সাক্ষাৎকার দাতার নাম : "উ> ΠΟΜΜ উ্যান্স

२. वरामः ४न ७. लिमः प्रवृत्त

৪. শিক্ষাগত যোগ্যতা: ভ্রমাব্রাস্থিত

e. लमा: स्ट्राप्ट्रिय किलाकी,

७. वनाकात नाम : अपूरिस्म

৭. এলাকার জনসংখ্যা: 1800

৮. চিত্রকর পরিবারের মোট সংখ্যা: ও স্থা

১. মহিলা কর্মীর মোট সংখ্যা: ১ ত্যু ন

১০. মহিলারা সকলে 'লক্ষ্মীর ভাগ্তার' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা:

১১. নাবালক কর্মী আছেন কিনা: 📆

১২. নাবালক কর্মীরা পূড়াগুনা করছেন কি না: 🏹 🌂

১৩. উৎপन्न वस्त विभाग मःकास काता वरूव चार्ष किनाः उडिमान्त भणा आह्मिन विभागणा म्रिक्ट अनेकानेटक प्परक क्टर

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 50

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: 🤼 T

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

CERROLEY RITE





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esuoum

সাক্ষাৎকার দাতার নাম : তিনাক্ষিকির্মি ত্রামির্মির

२. वग्रमः ४ न ७. निमः प्रावृत्य

৪, শিক্ষাগত যোগ্যতা: আব্যাহিনিব

e. (ममा: सामूच कताक किरामधी

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা: 🚮 🦳

৭. পরিবারের মাথাপিছু আয়: 60,000 বিচুবে)

৮. বর্তমান বাসস্থানের অবস্থা : 🖘 হিনী ন

क. वाष्ट्रि भाका किना : केंगिटाया उ

খ. ইলেকট্রিক সংযোগ আছে কিনা: 📆 🃉

গ. পাকা শৌচাগার আছে কিনা: ন্

৯. রেশন কার্ড আছে কিনা: 📆 🃉

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 📆

১১. উদ্যোগ আধার কার্ড আছে কিনা: 🏂 🗡

১২ GI registration আছে কিনা: ত্রি

So. GI registration number: AU/7520/GII 567/23

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 🕂

२८. विभवन महकाल वर्तनाः निक्तामणी हो निर्देश सिल्लाहा सेन्द्रणाधिक किल्ला आम्ब्री निर्देशनदानं नारिष्ठ वक्षत कावेटल उसे, विभवाव मासिष्ठ अवस्थि। व. विभवन यत्र वावशः या (वर्सन्क्र) वि सेल्लाहा सेल्लाहा अप्तिक्राणिक अल्ला, क्याचिक आहुलाका थ. हेश्यन् वह त्रक्रानी रम्न किना/ कान्ना त्रारं काव्य कन्नाह्नः

थ. डे९१न्न वस त्रक्णनी रम किना/ काता मिर कात्म माश्य कत्राह्नः हो, उपयकारो कासीय हिन्द हिन्द हिन्द

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 📊 🥂

১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

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١.	সাক্ষাৎকার	দাতার	নাম :	:	ट्यदलाक	उग्माय	एगना
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२. वसमः 61

७. निमः क्रुयुग

৪. শিক্ষাগত যোগতা: মাত্যিমিক

a. लना : त्यापुत्र प्रगति किल्ली

৬, বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : 🞢

भित्रवादात्र माथानिष् थायः ।5,00 8,000

৮. বৰ্তমান বাসস্থানের অবস্থা: স্নামীন

क. बाष्ट्र भाका किमा : ऋँग

খ, ইলেকট্রিক সংযোগ আছে কিনা: न्री।

গ, পাকা শৌচাগার আছে কিনা: স্থ্রী।

৯. রেশন কার্ড আছে কিনা: খ্রী

১০. স্বাস্থ্যসাধী কার্ড আছে কিনা: স্ত্রী

১১. উদ্যোগ আধার কার্ড আছে কিনা: न्या

১২. GI registration আছে কিনা: 🖄

30. GI registration number: AU/7522/61/567/25

১৪. GI registration সংক্রাম্ভ কোনো অসুবিধা আছে কিনা: 祈

১৫. विभाग मध्याष वर्गनाः बुगिङ्गिता चित्रास्त्र स्थित्व सामजी निधु त्याए स्म

ক, বিপণন এর ব্যবস্থা: স্পৌর্ট্

ध. उर्थन्न वस त्रम्कानी रस किना/ काता সেই काष्ट्र माशय कत्रह्मः द्वी (अस्त्रि उत्यापनी क्रिलीवा आदाघा वगर्व)

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 🚽

১৭. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Alak Kumar Jona 11/09/2023

Naratolo Sal Colors



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১. সাক্ষাৎকার দাতার নাম : ত্রাক্রোব্য ব্রুসার্ ত্যানা

৪, শিক্ষাগত যোগ্যতা: মার্ব্রাদিব

a. (नना : प्राप्तुव नगारि किन्त्री

७. वनाकात नाम : गाठा , जाउ , नक्किम दम्मि

৭. এলাকার জনসংখ্যা: 1400 স্সুস

৮, চিত্রকর পরিবারের মোট সংখ্যা: 3 বাসন

মহিলা কর্মার মোট সংখ্যা: 1 তান

১০. মহিলারা সকলে 'লক্ষীর ভাগ্যর' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা:

১১. নাবালক কমী আছেন কিনা: না

১২ নাবালক কর্মীরা পড়াগুনা করছেন কি না: AT

১৩. উৎপন্ন বস্তুর বিশণন সংক্রান্ত কোনো বক্তব্য আছে কিনা: ত্রীনুরা দিও আমানী বিন্নান্ত দাত্রিত্ব অব্বাসারি বা रतप्रवृक्तविकारव त्नएमा यस्न क्रिल्मीराज्य ज्याचिक नामृहित्व त्यारा स्ववृत्रा कवा समुह यस

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 900 সেন

১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা: 🗚

১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Alok Kumar Jana 11/09/2023

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১. সাক্ষাৎকার দাতার নাম : সিচু বৃ।পী ত্থানা

২. বয়স: 48

७. निष: अश्रिला

৪, শিক্ষাগত যোগ্যতা: হ্যাব্র্যিচিক

e. लमा: स्पाप्ट्रं कार्यो किपलकी

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : 🗥

৭. পরিবারের মাথাপিছু আয়: <del>১5,০০ ১</del> ৪,০০০ সাজিক

৮. বর্তমান বাসস্থানের অবস্থা : (১৯৫৯) তেনুসেশ

क. वाष्ट्रि भाका किना : श्लास्त्र वा ज़ि

খ. ইলেকট্রিক সংযোগ আছে কিনা: 📆

গ. পাকা শৌচাগার আছে কিনা: 📆 📉

১ রেশন কার্ড আছে কিনা: 📆 🌱

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 🌱

১১. উদ্যোগ আধার কার্ড আছে কিনা: 📆 🏋

১২ GI registration আছে কিনা: স্থ্ৰা

30. GI registration number: AU/7523/GII/567/26

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 🧥

20. विभाग महकाल वर्गनाः या श्विभाष खेटमा गृहा किमाला स्थाम् हो मिट्न ट्यट एम्

ক, বিপণন এর ব্যবস্থা: তথাটিচু।

य. छर्पन्न वस त्रक्रांनी रस किना/ काता मिर काता माराय कत्रह्मः र्रोप (उपट्स उपट्यान) क्लिलमी माराया कत्रह्मे

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা: 🔈 🏗 🕏 🗡

১৭. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Mithu Rani Jana 11.9.2023



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). मक्तरकाद माठाद नाम : 'शिषु याती ख्राता'

o. नित्र: अश्चिला 8. निकागड त्यागाडा: अश्चिरिका २ दहनः 48

e. लन : आहुन ट्यांति किलाओं,

ः बनाकार नाम: उपार्छा, उपवर, शक्तिम दमिनिति

৭. একাকার জনসংখ্য: 1400

৮. চিত্রকর পরিবারের মোট সংখ্যা: ও ডে্রে

১. মহিলা কমীর মোট সংখ্যা: 1 তান

১০. মহিলারা সকলে 'লক্ষ্মীর ভাগ্মর' ফিমের অভর্তুক্ত হরেছেন কিনা

নাবলক কমী আছেন কিনা:

১২ নাবাপক কর্মীরা পড়াজনা করছেন কি নাঃ 📈

२०. इस्पन्न बहुद दिनपन मरकां द्वाला वरूवा बाह्र किनाः उष्टिगाभित उपद्यश्री विभारितं प्राप्ति प्र अंक्षिं भ द्याक्ष्मां हाति ट्यत्नेत ठिल क्षिल्मिक ल्यामिक अर्जा होड़ दर्जाएक अर्जिश अर्था अर्भिय ठेवि

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: †০০০

১৫. GI registration चारवपन कादी निक्षीद्र मश्याः दिते हो

১৬, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ : Mithu Rane Jana 11.9.2023



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১. সাকাংকার দাতার নাম : তাথিনে গোলা (সম্মানক, কাঙ্কিয়ে মেদিনীপুরু মাদুরুবয়্স ক্রিপ্লী অন্তর্গতিন)

২, বরুদ: 46

৩. পিদ: কুরুম

৪. শিক্ষাগত বোগাতা: মাব্যামিবট

e. लन : स्राह्नु किलू

১. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : না

৭. পরিবারের মার্থাপিছু আর: G0,000 (সোস)

b. वर्डबान वामहाजब व्यवहाः ज्राप्तीत

হ বাড়ি পাকা কিনা : হুঁট্যা

খ, ইদেকট্রিক সংযোগ আছে কিনা: স্থ্রী

গ, পাকা শৌচাগার আছে কিনা: 🕌 🗍

১, রেশন কার্ড আছে কিনা: 📆।

১০. স্বাস্থ্যদাধী কার্ড আছে কিনা: স্প্রী

১১, উদ্যোগ আধার কার্ড আছে কিনা: 🛒

১২ GI registration আছে কিনা: স্ন্যা

30. GI registration number: AV 7524/GI /567/27

১৪. GI registration সক্রেম্ভ কোনো অসুবিধা আছে কিনা: 🕂

১৫. विभाग महाक्रा वर्गनाः रहेन्द्रामि किन्त्र आएने ६०% बुगिकमा रेटिगाएन वाकि कार्यक्री व्यवकाव / NGO बस्त कर्तु

द. विभवन ध्वत्र खबशः स्मार्फ्, अयुकाव्रि, रवप्रवृकादि

্ উৎপন্ন বস্তু রক্তানী হয় কিনা/ কারা সেই কাছে সাহাত্য করছেন: বুদ্ধানি সুমু

১৬. GI registration থাকার দরুণ আরের কোনো বিশেষ সুবিধা পাচছন কিনা:

किन्द्र आप्रजी विजिन् एम् दिस मूर्सिंग मारम शास्त्र, २१. माम्बरकात माठात मानत ७ वातिय :

11.09.2028

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) नक्तवत नवत नवः समितन ए*।मा* 

্কং 46 জন প্রা

इ. निकार वागायाः महित्र मिद्र

१. १९५ : मानुवू क्लिन्स्

\* जन्द नः अस्ट मार्ज, अद्, निर्म्म त्रामित्र

र् *अवस्तु* अमलकः १४१०

k জিবৰ পৰিবাজে সেই কৰা: 5 চুম

्र संज्ञा बसैंड प्राप्ते समाः ३ गुन

- 🗷 মহিলুর সকলে সম্বীর ভারের কিমের অন্তর্ভুক্ত হয়েছেল বিলা: 🖈 2 পুসন
- 🎎 नतम्ब बयै व्यापन दिनः 📶
- 🕮 गतनक बर्मेंत गड़कन बनाइन कि गो: 🗚
- म्य क्या क्या क्या कार कार का वाय का अन्तरायि माद रामववायि विस्तारम क्रिली हार क्रिक्ट किया के रिस्तारम रेस्नारम सावस्त्र साधिक क्रीवृद्धि सर्व,
- भ्रे. प्री regimentan निर्दे ध्यम निर्देश मन्त्री: 900 पुनि
- अर. प्रा अञ्चलकार्याका व्यवन्त करी निवीद मन्त्राः **मी**

3년. 제파악하고 대비교 제파고 e 비교기 : A King Sare. 11.09.2023

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

### Date of Visit: 11/09/2023

১. সাক্ষাৎকার দাতার নাম : সুপ্রীতি জ্যানা

২, বয়স: 31

७. निष: अश्रिला

8. শিক্ষাগত যোগাতা: B.A. PITSO!

e. लगा: सापूर्व किरामधी

७. वनाकात नाम: ज्याजी, जावर, शिक्तिस हमिली छून,

৭. এলাকার জনসংখ্যা: 1400

৮. চিত্রকর পরিবারের মোট সংখ্যা: 🖇 ত্যুন

৯. মহিলা কর্মীর মোট সংখ্যা: ব ত্রু ন

১০. মহিলারা সকলে 'লক্ষ্মীর ভাগুর' স্কিমের অন্তর্ভুক্ত হয়েছেন কিনা: 🔊 🕽 🤝 🐧

১১. নাবালক কমী আছেন কিনা: 7

১২. নাবালক কর্মীরা পড়াগুনা করছেন কি নাঃ 📶

১৩. উৎপদ্ন বস্তর বিপণন সংক্রান্ত কোনো বক্তব্য আছে কিনা: স্থান্দ্রিপত ভিস্ফোর্ডের উৎপাদিত জিস্ফারী নির্বিপনন সংক্রান্ত কোনো বক্তব্য আছে কিনা: স্থান্দ্রিপত ভিস্ফোর্ডের বার্থিক ক্রিন্দ্রিপনির ক্রান্ত্রিক ক্রিন্দ্রের ক্রেন্দ্রের ক্রেন্দ্রের ক্রিন্দ্রের ক্রেন্দ্রের ক্রিন্দ্রের ক্রেন্দ্রের ক্রিন্দ্রের ক্রিন্দ্রের ক্রিন্দ্রের ক্রেন্দ্রের ক্রিন্ট

১৪. GI registration নেই এমন শিল্পীর সংখ্যা: 1000

১৫. GI registration আবেদন কারী শিল্পীর সংখা: 🧥

১৬, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

## Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur

### Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

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সাক্ষাৎকার দাতার নাম: স্ক্রান্সাওি ত্রানা

২ বয়স: 31

৩. লিঙ্গ: মিপ্রিম্পো ৪. শিক্ষাগত যোগ্যতা: B.A. প্রাষ্ঠ্র

e. लगः सापूर्व दगोरी - क्रान्मी.

৬, বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা : স্প্রাচ্চী টাকুরি ইন্ড (বিলাম)কৈন্তা)

৭. পরিবারের মাথাপিছু আয়: ১, 5০,০০ বিজ্বে,

৮. বর্তমান বাসস্থানের অবস্থা : ১৯১১ শেষ্ট্রেল

হ, বাড়ি পাকা কিনা : **সো**ক্তা বাড়ি

খ, ইলেকট্রিক সংযোগ আছে কিনা: 뉯 🥎

গ, পাকা শৌচাগার আছে কিনা: 📆 🏹

১ রেশন কার্ড আছে কিনা:

১০. স্বাস্থ্যসাথী কার্ড আছে কিনা: 🗝 📉 Υ

১১. উদ্যোগ আধার কার্ড আছে কিনা: 📆 🏋

১২ GI registration আছে কিনা: ত্রা

30. GI registration number: AU/7525/GI/567/28

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা: 🔏

১৫. বিপণন সংক্রান্ত বর্ণনা: স্রাক্তিপত উদ্যোগে বিপানেজনর স্মানিক্ত ক্রিন্দেগ্রিকেন্ট বছন ব্রুতে

ক. বিপণন এর ব্যবস্থা: ক্তাভিম ,

খ, উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন: ত্রাস্ত্রা, কিনাপেনী ও সাহাত্য্য কিলেনী উল্পে

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা:

GII registration organi किल्ला आध्रे ११ मान्नश्कात मागत शक्त ६ गतिर : इक्टिंग न्यानिक अधिया काम्या यामा Supriti Jana

11.9.23.



Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Harajole Raj College, Harajole, Paschim Medinipur

Date of Visit: 11/09/2021
2 101 316 Ling 10
), भाष्माध्याव भाषाव भाष : किंग्डिमी मार्ग अविश्व प्राप्त भाषा : किंग्डिमी मार्ग अविश्व प्राप्त भाषा : किंग्डिमी मार्ग अविश्व अविश्व भाषाव भाषा : किंग्डिमी अविश्व अविष्य अविश्व अविष्य अविष्य अविष्य अविष्य अविष्य अविष्य अविष्य अविष्य
১. সাক্ষাৎকার দাতার নাম :  ১. বহুস: ৫ ৫ ০. পিজ: 13/14/1 ৪. শিক্ষাণত মোগাতা: 13/15/10/11  ০. পেশা: 3/13 য় বিল্যানি  ৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা :
a. com: 3/13 / 24/02
৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আয়ের কোনো উৎস আছে কিনা :
१. भीडनाव्यत्र भागांभिष् चायः
४. वर्षमान नामशामात चनश : जि. पु वर्गा प्रिंडि
क. नांड भाग किंगा : क्या कि या थे
ম, উপ্লেকট্রিক সংযোগ আছে কিনা: <i>GNC</i> 2
গ, পাকা পৌচাগার আছে কিনা: G-MV2—
à. त्यन्त कार्ड चाटक किनाः G-MC2
১০. সাস্তাসাধী কার্ড আছে কিনা: ৬৪৫০ -
১১. উদ্যোগ আধার কার্ড আছে, কিনা: G-1102
32. GI registration stree form: GHCL
20. GI registration number: A 4/7526/011/567/29
১৪. GI registration সংক্রেম্ব কোলো অসুবিধা আছে কিনা:
३५. विभवन मध्याच वर्षनाः
ক, বিপণন এর ব্যবহা: GML  ব, বিপণন এর ব্যবহা: GML  ব, উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায় করছেন: 2 % ১৮৫৮ চি ডিলিক্রি বিলিক্রি বিশিক্তির ১৮৫৮ চি ডিলিক্রি বিশিক্তির ১৮. Gl registration থাকার দরুপ আয়ের কোনো বিশেষ সুবিধা পাছেন কিনা: নি
১৬. Gl registration থাকার দরুপ আয়ের কোনো বিশেষ সুবিধা পাছেল কিনা: 🎻 .
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Kalgani Rani Das maily

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

### Date of Visit: 11/09/2023

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১৬. সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

Kalyani Rani Das Maity 10.09.2013

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur Date of Visit: 11/09/2023

১, সাক্ষাৎকার দাতার নাম : তারুত্ব সমান্ত্রা

२. वग्रमः 56

७. निमः अत्र-भ

৪, শিক্ষাগত যোগ্যতা;

৫. পেশা :

ZIM'S BAN-

৬. এলাকার নাম :

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৭. এলাকার জনসংখ্যা:

121

৮. চিত্রকর পরিবারের মোট সংখ্যা:

365

৯. মহিলা কর্মীর মোট সংখ্যা;

95

১০. মহিলারা সকলে 'লক্ষীর ভাণ্ডার' ক্কিমের অন্তর্ভুক্ত হয়েছেন কিনা:

1214

১১. নাবালক কর্মী আছেন কিনা:

M

১২ নাবালক কর্মীরা পড়াখনা করছেন কি নাঃ

4244

১৩. উৎপন্ন বস্তুর বিপূণন সংক্রোম্ভ কোনো বক্তব্য আছে কিনা:

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১৪. GI registration নেই এমন শিল্পীর সংখ্যা:

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১৫. GI registration আবেদন কারী শিল্পীর সংখ্যা;

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১৬, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ :

59/00/20

# Questionnaires (1) for 'Madurkathi Shilpi' of different Blocks of Paschim Medinipur

# Field Visit done by IPR Cell, Narajole Raj College, Narajole, Paschim Medinipur

### Date of Visit: 11/09/2023

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	Walpar Jak

७. नित्रः अद्भुक्य

8. শিক্ষাগত যোগ্যতা:

C. COPTI: STYD FEMORAL

৬. বর্তমান আর্থিক অবস্থা ও অতিরিক্ত আঁয়ের কোনো উৎস আছে কিনা :

৭. পরিবারের মাথাপিছু আয়:

5000 FR

৮. বর্তমান বাসস্থানের অবস্থা :

John

ক, বাড়ি পাকা কিনা :

খ. ইলেকট্রিক সংযোগ আছে কিনা:

গ, পাকা শৌচাগার আছে কিনা:

৯. রেশন কার্ড আছে কিনা:

১০, স্বাস্থ্যসাথী কার্ড আছে কিনা;

১১. উদ্যোগ আধার কার্ড আছে কিনা:

১২ GI registration আছে কিনা:

30. GI registration number:

১৪. GI registration সংক্রান্ত কোনো অসুবিধা আছে কিনা:

२०. विश्वन मश्कां वर्षनाः Colom, शिंदित्मत्र कहार क्रमहा ( 1854)

ক. বিপণন এর ব্যবস্থা;

খ. উৎপন্ন বস্তু রফতানী হয় কিনা/ কারা সেই কাজে সাহায্য করছেন;

कार जिल्ली एवं अधायातीक

১৬. GI registration থাকার দরুণ আয়ের কোনো বিশেষ সুবিধা পাচ্ছেন কিনা:

an,

১৭, সাক্ষাৎকার দাতার স্বাক্ষর ও তারিখ -

# List of Madurkathi (Authorised User) Shilpi who were met on Sepeember 11, 2023

Authorised User	Name of the	Address	Mobile#	Date of
No.	Applicant			registration
AU/7498/GI/567/1	Alpana Jana	Panchuria, Patashpur, Purba	9735669280	12.03.2021
AU/7499/GI/567/2	Ashok Jana	Sarta, Sabang, Paschim	9733728742	12.03.2021
AU/7500/GI/567/3	Biswajit Dutta	Pajankul, Bhagabanpur, Purba	9733804115	12.03.2021
AU/7501/GI/567/4	Chandan Mula	Ruinan, Sabang, Paschim	9734736117	12.03.2021
AU/7502/GI/567/5	Gouri Bala Das	Sabang, Paschim		
AU/7503/GI/567/6	Gouri Rani Jana	Paschim Beguni, Chakshyampur,	9635178909	12.03.2021
		Debra, Paschim		
AU/7504/GI/567/7	Jadab Kum Samanta	Bankibehari, Panchuria, Pataspr	8001217537	12.03.2021
AU/7506/GI/567/9	Lakshmi Kanta Sahoo	Barchahara, Sabang, Pashim	7865849439	12.03.2021
AU/7507/GI/567/10	Lakshmi Rani Mula	Ruinan, Sabang,, Paschim	9734736117	12.03.2021
AU/7508/GI/567/11	Lakshmi Sahoo	Barchahara, Sabang, Paschim	8972187006	12.03.2021
AU/7509/GI/567/12	Mukul Rani Dutta	Panjakal, Bhagabanpur, Purba	9733804115	12.03.2021
AU/7510/GI/567/13	Nishikanta Das	Sarta, Sabang, Paschim	9800314193	12.03.2021
AU/7513/GI/567/16	Sachindranath	Barbasudevpur Deshpran Pragati	9593990206	12.03.2021
	Guchhait	Sangha, Kuber DuttaBheri,		
		Bhagabanpur	k	
AU/7514/GI/567/17	Sankari Jana	Barchahara, Sabang, Paschim	8768789414	12.03.2021
AU/7516/GI/567/19	Tapas Kumar Jana	Paschim Beguni, Chakshyampur,	6294753636	12.03.2021
		Debra, Paschim	LEGZ	
	AU/7498/GI/567/1 AU/7499/GI/567/2 AU/7500/GI/567/3 AU/7501/GI/567/4 AU/7502/GI/567/5 AU/7503/GI/567/6  AU/7504/GI/567/7 AU/7506/GI/567/10 AU/7508/GI/567/11 AU/7509/GI/567/12 AU/7510/GI/567/13 AU/7513/GI/567/17	AU/7498/GI/567/1 Alpana Jana AU/7499/GI/567/2 Ashok Jana AU/7500/GI/567/3 Biswajit Dutta AU/7501/GI/567/4 Chandan Mula AU/7502/GI/567/5 Gouri Bala Das AU/7503/GI/567/6 Gouri Rani Jana  AU/7504/GI/567/7 Jadab Kum Samanta AU/7506/GI/567/9 Lakshmi Kanta Sahoo AU/7507/GI/567/10 Lakshmi Rani Mula AU/7508/GI/567/11 Lakshmi Sahoo AU/7509/GI/567/12 Mukul Rani Dutta AU/7510/GI/567/13 Nishikanta Das AU/7513/GI/567/16 Sachindranath Guchhait  AU/7514/GI/567/17 Sankari Jana	AU/7498/GI/567/1 Alpana Jana Panchuria, Patashpur, Purba AU/7499/GI/567/2 Ashok Jana Sarta, Sabang, Paschim AU/7500/GI/567/3 Biswajit Dutta Pajankul, Bhagabanpur, Purba AU/7501/GI/567/4 Chandan Mula Ruinan, Sabang, Paschim AU/7502/GI/567/5 Gouri Bala Das Sabang, Paschim AU/7503/GI/567/6 Gouri Rani Jana Paschim Beguni, Chakshyampur, Debra, Paschim AU/7504/GI/567/7 Jadab Kum Samanta Bankibehari, Panchuria, Pataspr AU/7506/GI/567/9 Lakshmi Kanta Sahoo Barchahara, Sabang, Paschim AU/7507/GI/567/10 Lakshmi Rani Mula Ruinan, Sabang, Paschim AU/7509/GI/567/11 Lakshmi Sahoo Barchahara, Sabang, Paschim AU/7509/GI/567/12 Mukul Rani Dutta Panjakal, Bhagabanpur, Purba AU/7510/GI/567/13 Nishikanta Das Sarta, Sabang, Paschim AU/7513/GI/567/16 Sachindranath Barbasudevpur Deshpran Pragati Guchhait Sangha, Kuber Dutta Bheri, Bhagabanpur  AU/7514/GI/567/17 Sankari Jana Barchahara, Sabang, Paschim AU/7516/GI/567/17 Tapas Kumar Jana Paschim Beguni, Chakshyampur,	AU/7498/GI/567/1 Alpana Jana Panchuria, Patashpur, Purba 9735669280  AU/7499/GI/567/2 Ashok Jana Sarta, Sabang, Paschim 9733728742  AU/7500/GI/567/3 Biswajit Dutta Pajankul, Bhagabanpur, Purba 9733804115  AU/7501/GI/567/4 Chandan Mula Ruinan, Sabang, Paschim 9734736117  AU/7502/GI/567/5 Gouri Bala Das Sabang, Paschim 9734736117  AU/7503/GI/567/6 Gouri Rani Jana Paschim Beguni, Chakshyampur, 9635178909  Debra, Paschim Beguni, Chakshyampur, 9635178909  Debra, Paschim 9734736117  AU/7504/GI/567/7 Jadab Kum Samanta Bankibehari, Panchuria, Pataspr 8001217537  AU/7506/GI/567/10 Lakshmi Rani Mula Ruinan, Sabang, Paschim 9734736117  AU/7508/GI/567/11 Lakshmi Sahoo Barchahara, Sabang, Paschim 9734736117  AU/7509/GI/567/12 Mukul Rani Dutta Panjakal, Bhagabanpur, Purba 9733804115  AU/7510/GI/567/13 Nishikanta Das Sarta, Sabang, Paschim 9800314193  AU/7513/GI/567/16 Sachindranath Barbasudevpur Deshpran Pragati 9593990206  AU/7514/GI/567/17 Sankari Jana Barchahara, Sabang, Paschim 8768789414  AU/7516/GI/567/17 Tapas Kumar Jana Paschim Beguni, Chakshyampur, 6294753636  Debra, Paschim

# List of Madurkathi (Authorised User) Shilpi who were met on Sepeember 11, 2023

16	AU/7519/GI/567/22	Pabitra Samanta	Village: Bankibheri, Bl - Pataspur	9775257518	12.03.2021		
17	AU/7520/GI/567/23	Gopal Jana	Village: Panchuria, Post: Panchuria, PS -	9735696280	12.03.2021		
			Pataspur, Amarchi, Manglamaro				
18	AU/7522/GI/567/25	Alak Kumar Jana	Sarta (East), Sarta, Sabang, Pashchim	9734845044	12.03.2021		
19	AU/7523/GI/567/26	Mithu Rani Jana	Sarta (East), Sarta, Sabang, Pashchim	9734845044	12.03.2021		
20	AU/7524/GI/567/27	Akhil Jana	Sarta (East), Sarta, Sabang, Pashchim	9748137691	12.03.2021		
21	AU/7525/GI/567/28	Supriti Jana	Village: Sarta, Sub District: Sabang	9883573145	12.03.2021		
22	AU/7526/GI/567/29	Kalyani Rani Das	Village: Mashumpur, Post: Lokepith,	9382960641	12.03.2021		
		Maity	Mashumpur, Lokepith Bishnupur Paschim				
23	AU/7527/GI/567/30	Arun Khatua	Village: Maligram, Post: Maligram,	9775134162	12.03.2021		
		Wat 07 24	Pingla, Paschim				

List of Madurkathi (Authorised User) Shilpi who were met on Sepeember 11, 2023





### Certificate of Appreciation

This certificate is awarded to

#### PRAGNA PARAMITA MONDAL

For successfully completing the

Faculty Development Program on Intellectual Property Rights

during 4<sup>th</sup> Week of March, 2024

Organized by
West Bengal State Council of Science & Technology
Department of Science & Technology and Biotechnology
Government of West Bengal

Shri. Dipanjan Bhattacharyya, WBCS (Exe)

Special Secretary, Government of West Bengal

#### MINI REVIEW ARTICLE

# Green Synthesis of Copper Nanoparticles by Using Plant Extracts and their Biomedical Applications – An Extensive Review

Soumen Rakshit<sup>1</sup>, Paresh Chandra Jana<sup>1</sup> and Tapanendu Kamilya<sup>2,\*</sup>

<sup>1</sup>Department of Physics, Vidyasagar University, Paschim Medinipur-721102, West Bengal, India; <sup>2</sup>Department of Physics, Narajole Raj College, Paschim Medinipur-721211, West Bengal, India

#### ARTICLE HISTORY

Received: January 23, 2022 Revised: January 27, 2022 Accepted: March 14, 2022

DOI: 10.2174/2405461507666220516092814

NO STORY 24

**Abstract:** In recent years, the green synthesis of different metal nanoparticles has become a substantial technique for the synthesis of different essential nanoparticles and their potential applications in technological, industrial along with biomedical fields. Among the several essential nanoparticles, copper nanoparticles (CuNPs) have attracted enormous attention for their wide range of applications like the production of gas sensors, solar cells, high-temperature superconductors as well as drug delivery materials and catalysis owing to its distinctive optical, electrical, dielectric, imaging and catalytic, etc. properties. Herein, in this review, our aim is to find out the recent progress of synthesis, as well as different optical and structural characterizations of green, synthesized CuNPs along with their broadspectrum biomedical applications, mainly antibacterial, antifungal, antiviral and anticancer as well as the future perspective of research trends in the green synthesis of CuNPs. CuNPs have been synthesized by different researchers using three methods, namely, physical, chemical, and biological. In this review, the eco-friendly, efficient and low cost different established biological/green synthesis methods of CuNPs using different plant extracts like leaves, flowers, fruits, seeds, latex, etc., as capping and reducing agents have been briefly discussed, along with reaction conditions together with their optical as well as structural analysis. Effects of different parameters on the green synthesis of CuNPs like the presence of phytochemicals and confirmation of phytochemicals, temperature, pH, etc., are elucidated. Studies of the antibacterial activity of biomolecules capped CuNPs by different researchers against both Gram-positive and Gram-negative bacterial strains along with minimum inhibitory concentration (MIC) values have been summarized. Furthermore, antifungal and antiviral effects of green synthesized CuNPs studied by different researchers are mentioned with minimum inhibitory concentration (MIC) values. The anticancer activity of green synthesized CuNPs against different cancer cells studied by different researchers is summarized with correlation sizes of CuNPs on anticancer activity. The review also focuses on *in vivo* applications of green synthesized CuNPs along with clinical trails. Furthermore, an emphasis is given to the effectiveness of CuNPs in combating COVID-19.

**Keywords:** Green synthesis, copper nanoparticles, plant extracts, characterizations, phytochemicals, biomedical applications.

#### 1. INTRODUCTION

Nanotechnology is a promising field in recent research and the foremost driving force behind the modern industrial revolution. Nanotechnology deals with nanoparticles, typically of small size and range (1nm-100 nm) [1, 2]. They possess a large surface area to volume ratio, which makes them more extraordinary. The synthesis of metal nanoparticles (MNPs) has been a significant focus of research in contemporary materials science to provide the maximum benefit for society over the past few years. We give our attention to the copper nanoparticles (CuNPs) as they show many important properties like thermal, electrical optical as well as low cost and are easily available in the market [3]. The

basic problem is the prevention of CuNPs from oxidization in the presence of air [4]. Some researchers used PEG6000 as a stabilizer [5], which is non-toxic. Various phytochemicals like alkaloids, flavonoids, tannins, saponins, etc., play an important role in the green synthesis of CuNPs as capping agents. Actually, the reduction of Cu<sup>2+</sup> ions to Cu<sup>0</sup>, i.e., CuNPs formation, is obtained by those active phytochemicals present in plant extracts. This is the major advantage of the eco-friendly, non-toxic and cost-effective green synthesis method of CuNPs over the chemical and physical methods [6]. In green synthesis methods, the synthesis of CuNPs can be easily scaled up without any need for hazardous toxic chemicals, high pressure along with controlling temperature, etc. Moreover, CuNPs that are produced by plant extracts are more stable and biocompatible with respect to chemical methods [7-9].

In this review, we have briefly discussed the green synthesis of CuNPs synthesized from different plant extracts

<sup>\*</sup>Address correspondence to this author at the Department of Physics, Narajole Raj College, Paschim Medinipur-721211, West Bengal, India; Tel: 03225-259755; E-mail: phytk@narajolerajcollege.ac.in

### Vidyasagar University

#### Curriculum for B.Sc. (Honours) in Physics [Choice Based Credit System]

#### Semester-VI

Course	Course Code	Name of the Subjects	Course Type/ Nature	Teaching Scheme in hour per week		hour	Credit	Marks
				L	T	P		APN
CC- 13		C13T: Electromagnetic Theory	Core Course-13	4	0	0	6	75
		- Lab	1	0	0	4	1	
CC- 14		C14T: Statistical Mechanics	Core Course-14	4	0	0	6	75
		- Lab	7	0	0	4	1	
DSE-3		TBD	Discipline	4	0	0	6	75
			Specific Electives -3	0	0	4		
DSE-4		TBD	Discipline Specific Electives -4				4/5 2/1	75
	•	Semester Total					24	300

L= Lecture, T= Tutorial, P= Practical, CC- Core Course, TBD- To be decided, DSE: Discipline Specific Elective.

#### Semester-VI

#### List of Core Course (CC)

**CC-13: Electromagnetic Theory** 

**CC-14: Statistical Mechanics** 

#### **Discipline Specific Electives (DSE)**

**DSE-3: Medical Physics** 

Or

**DSE-3: Nano Materials and Applications** 

Or

**DSE-3** Communication Electronics

**DSE-4: Digital Signal Processing** 

Or

**DSE-4: Biological Physics** 

Or

**DSE-4: Experimental Techniques** 

#### SEMESTER -VI

#### Core Courses (CC)

**CC-13: Electromagnetic Theory** 

Credits 06

**CC13T: Electromagnetic Theory** 

Credits 04

**Course Contents:** 

#### **Maxwell Equations**

Maxwell's equations. Displacement Current, Vector and Scalar Potentials. Gauge Transformations: Lorentz and Coulomb Gauge. Boundary Conditions at Interface between Different Media. Wave Equations. Plane Waves in Dielectric Media. Poynting Theorem and Poynting Vector. Electromagnetic (EM) Energy Density. Physical Concept of Electromagnetic Field Energy Density, Momentum Density and Angular Momentum Density.

#### **EM Wave Propagation in Unbounded Media**

Plane EM waves through vacuum and isotropic dielectric medium, transverse nature of plane EM waves, refractive index and dielectric constant, wave impedance. Propagation through conducting media, relaxation time, skin depth. Wave propagation through dilute plasma, electrical conductivity of ionized gases, plasma frequency, refractive index, skin depth, application to propagation through ionosphere.

#### **EM Wave in Bounded Media**

Boundary conditions at a plane interface between two media. Reflection & Refraction of plane waves at plane interface between two dielectric media-Laws of Reflection & Refraction. Fresnel's Formulae for perpendicular & parallel polarization cases, Brewster's law. Reflection & Transmission coefficients. Total internal reflection, evanescent waves. Metallic reflection (normal Incidence).

#### **Polarization of Electromagnetic Waves**

Description of Linear, Circular and Elliptical Polarization. Propagation of E.M. Waves in Anisotropic Media. Symmetric Nature of Dielectric Tensor. Fresnel's Formula. Uniaxial and Biaxial Crystals. Light Propagation in Uniaxial Crystal. Double Refraction. Polarization by Double Refraction. Nicol Prism. Ordinary & extraordinary refractive indices. Production & detection of Plane, Circularly and Elliptically Polarized Light. Phase Retardation Plates: Quarter-Wave and Half-Wave Plates. Babinet Compensator and its Uses. Analysis of Polarized Light.

Rotatory Polarization: Optical Rotation. Biot's Laws for Rotatory Polarization. Fresnel's Theory of optical rotation. Calculation of angle of rotation. Experimental verification of Fresnel's theory. Specific rotation. Laurent's half-shade polarimeter.

#### Wave guides

Planar optical wave guides. Planar dielectric wave guide. Condition of continuity at interface. Phase shift on total reflection. Eigenvalue equations. Phase and group velocity of guided waves. Field energy and Power transmission.

#### **Optical Fibres**

Numerical Aperture. Step and Graded Indices (Definitions Only). Single and Multiple Mode Fibres (Concept and Definition Only).

#### **Suggested Readings:**

- 1. Introduction to Electrodynamics, D.J. Griffiths, 3rd Ed., 1998, Benjamin Cummings.
- 2. Optics, E. Hecht, 2016, Pearson.
- 3. Elements of Electromagnetics, M.N.O. Sadiku, 2001, Oxford University Press.
- 4. Introduction to Electromagnetic Theory, T.L. Chow, 2006, Jones & Bartlett Learning
- 5. Fundamentals of Electromagnetics, M.A.W. Miah, 1982, Tata McGraw Hill
- 6. Electromagnetic field Theory, R.S. Kshetrimayun, 2012, Cengage Learning
- 7. Engineering Electromagnetic, Willian H. Hayt, 8th Edition, 2012, McGraw Hill.
- 8. Electromagnetic Field Theory for Engineers & Physicists, G. Lehner, 2010, Springer Additional Books for Reference
- 1. Electromagnetic Fields & Waves, P.Lorrain & D.Corson, 1970, W.H.Freeman & Co.
- 2. Electromagnetics, J.A. Edminster, Schaum Series, 2006, Tata McGraw Hill.
- 3. Electromagnetic field theory fundamentals, B. Guru and H. Hiziroglu, 2004, Cambridge University Press

#### C13P: Electromagnetic Theory (Lab)

Credits 02

#### **List of Practical:**

1. To verify the law of Malus for plane polarized light.

- 2. To determine the specific rotation of sugar solution using Polarimeter.
- 3. To analyze elliptically polarized Light by using a Babinet's compensator.
- 4. To study dependence of radiation on angle for a simple Dipole antenna.
- 5. To determine the wavelength and velocity of ultrasonic waves in a liquid (Kerosene Oil, Xylene, etc.) by studying the diffraction through ultrasonic grating.
- 6. To study the reflection, refraction of microwaves.
- 7. To study Polarization and double slit interference in microwaves.
- 8. To determine the refractive index of liquid by total internal reflection using Wollaston's air-film.
- 9. To determine the refractive Index of (1) glass and (2) a liquid by total internal reflection using a Gaussian eyepiece.
- 10. To study the polarization of light by reflection and determine the polarizing angle for airglass interface.
- 11. To verify the Stefan's law of radiation and to determine Stefan's constant.
- 12. To determine the Boltzmann constant using V-I characteristics of PN junction diode.

#### **Suggested Readings:**

- 1. Advanced Practical Physics for students, B.L. Flint and H.T. Worsnop, 1971, Asia Publishing House.
- 2. Advanced level Physics Practical, Michael Nelson and Jon M. Ogborn, 4th Edition, reprinted 1985, Heinemann Educational Publishers
- 3. A Text Book of Practical Physics, I. Prakash & Ramakrishna, 11th Ed., 2011, Kitab Mahal
- 4. Electromagnetic Field Theory for Engineers & Physicists, G. Lehner, 2010, Springer

**CC-14: Statistical Mechanics** 

Credits 06

**CC14T: Statistical Mechanics** 

Credits 04

#### **Course Contents:**

#### **Classical Statistical Mechanics**

Macrostate & Microstate, Elementary Concept of Ensemble, Microcanonical ensemble, Phase Space, Entropy and Thermodynamic Probability, Canonical ensemble, Partition Function,

Thermodynamic Functions of an Ideal Gas, Classical Entropy Expression, Gibbs Paradox, Sackur Tetrode equation, Law of Equipartition of Energy (with proof) – Applications to Specific Heat and its Limitations, Thermodynamic Functions of a Two-Energy Levels System, Negative Temperature. Grand canonical ensemble and chemical potential.

#### **Classical Theory of Radiation**

Properties of Thermal Radiation. Blackbody Radiation. Pure temperature dependence. Kirchhoff's law. Stefan-Boltzmann law: Thermodynamic proof. Radiation Pressure. Wien's Displacement law. Wien's Distribution Law. Saha's Ionization Formula. Rayleigh-Jean's Law. Ultraviolet Catastrophe.

#### **Quantum Theory of Radiation**

Spectral Distribution of Black Body Radiation. Planck's Quantum Postulates. Planck's Law of Blackbody Radiation: Experimental Verification. Deduction of (1) Wien's Distribution Law, (2) Rayleigh-Jeans Law, (3) Stefan-Boltzmann Law, (4) Wien's Displacement law from Planck's law.

#### **Bose-Einstein Statistics:**

B-E distribution law, Thermodynamic functions of a strongly Degenerate Bose Gas, Bose Einstein condensation, properties of liquid He (qualitative description), Radiation as a photon gas and Thermodynamic functions of photon gas. Bose derivation of Planck's law.

#### **Fermi-Dirac Statistics:**

Fermi-Dirac Distribution Law, Thermodynamic functions of a Completely and strongly Degenerate Fermi Gas, Fermi Energy, Electron gas in a Metal, Specific Heat of Metals, Relativistic Fermi gas, White Dwarf Stars, Chandrasekhar Mass Limit.

#### **Suggested Readings:**

- 1. Statistical Mechanics, R.K. Pathria, Butterworth Heinemann: 2<sup>nd</sup> Ed.,1996, Oxford University Press.
- 2. Statistical Physics, Berkeley Physics Course, F. Reif, 2008, Tata McGraw-Hill
- 3. Statistical and Thermal Physics, S. Lokanathan and R.S. Gambhir. 1991, Prentice Hall
- 4. Thermodynamics, Kinetic Theory and Statistical Thermodynamics, Francis W. Sears and Gerhard L. Salinger, 1986, Narosa.
- 5. Modern Thermodynamics with Statistical Mechanics, Carl S. Helrich, 2009, Springer
- 6. An Introduction to Statistical Mechanics & Thermodynamics, R.H. Swendsen, 2012, Oxford Univ. Press

7. Statistical Mechanics – an elementary outline, A. Lahiri, 2008, Universities Press

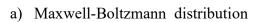
#### C14P: Statistical Mechanics (Lab)

# No. 15 Port 24

#### Credits 02

#### **List of Practical:**

- 1. Computational analysis of the behavior of a collection of particles in a box that satisfy Newtonian mechanics and interact via the Lennard-Jones potential, varying the total number of particles N and the initial conditions:
  - a) Study of local number density in the equilibrium state (i) average; (ii) fluctuations.
  - b) Study of transient behavior of the system (approach to equilibrium).
  - c) Relationship of large N and the arrow of time.
  - d) Computation of the velocity distribution of particles for the system and comparison with the Maxwell velocity distribution.
  - e) Computation and study of mean molecular speed and its dependence on particle mass.
  - f) Computation of fraction of molecules in an ideal gas having speed near the most probable speed.
- 2. Computation of the partition function Z(□) for examples of systems with a finite number of single particle levels (e.g., 2 level, 3 level, etc.) and a finite number of non-interacting particles N under Maxwell-Boltzmann, Fermi-Dirac and Bose- Einstein statistics:
  - a) Study of how  $Z(\Box)$ , average energy <E>, energy fluctuation  $\Box E$ , specific heat at constant volume  $C_v$ , depend upon the temperature, total number of particles N and the spectrum of single particle states.
  - b) Ratios of occupation numbers of various states for the systems considered above
  - c) Computation of physical quantities at large and small temperature T and comparison of various statistics at large and small temperature T.
- 3. Plot Planck's law for Black Body radiation and compare it with Raleigh-Jeans Law at high temperature and low temperature.
- 4. Plot Specific Heat of Solids (a) Dulong-Petit law, (b) Einstein distribution function, (c) Debye distribution function for high temperature and low temperature and compare them for these two cases.
- 5. Plot the following functions with energy at different temperatures



- b) Fermi-Dirac distribution
- c) Bose-Einstein distribution



#### **Suggested Readings:**

- 1. Elementary Numerical Analysis, K.E. Atkinson, 3<sup>rd</sup> edn. 2007, Wiley India Edition.
- 2. Statistical Mechanics, R.K. Pathria, Butterworth Heinemann: 2<sup>nd</sup> Ed., 1996, Oxford University Press.
- 3. Introduction to Modern Statistical Mechanics, D. Chandler, Oxford University Press, 1987.
- 4. Thermodynamics, Kinetic Theory and Statistical Thermodynamics, Francis W. Sears and Gerhard L. Salinger, 1986, Narosa.
- 5. Modern Thermodynamics with Statistical Mechanics, Carl S. Helrich, 2009, Springer.
- 6. Statistical and Thermal Physics with computer applications, Harvey Gould and Jan Tobochnik, Princeton University Press, 2010.
- 7. Simulation of ODE/PDE Models with MATLAB®, OCTAVE and SCILAB: Scientific and Engineering Applications: A. Vande Wouwer, P. Saucez, C. V. Fernández. 2014 Springer.

#### Discipline Specific Electives (DSE)

DSE-3: Medical Physics Credits 06

DSE3T: Medical Physics Credits 04

#### **Course Contents:**

#### Physics of the Body-I

Basic Anatomical Terminology: Standard Anatomical Position, Planes. Familiarity with terms like-Superior, Inferior, Anterior, Posterior, Medial, Lateral, Proximal and Distal. **Mechanics of the body:** Skeleton, forces, and body stability. Muscles and dynamics of body movement. Physics of Locomotors Systems: joints and movements, Stability and Equilibrium. **Energy household of the body:** Energy balance in the body, Energy consumption of the body, Heat losses of the body, Thermal Regulation. **Pressure system of body:** Physics of breathing, Physics of cardiovascular system.

#### Physics of the Body-II

Acoustics of the body: Nature and characteristics of sound, Production of speech, Physics of the ear, Diagnostics with sound and ultrasound. **Optical system of the body:** Physics of the eye. **Electrical system of the body:** Physics of the nervous system, Electrical signals and information transfer.

#### Physics of Diagnostic and Therapeutic Systems-I (X-Rays)

**X Ray:** Electromagnetic spectrum, production of x-rays, x-ray spectra, Brehmsstrahlung, Characteristic x-ray. **X-ray tubes & types:** Coolidge tube, x-ray tube design, tube cooling stationary mode, Rotating anode x-ray tube, Tube rating, quality and intensity of x-ray. X-ray generator circuits, half wave and full wave rectification, filament circuit, kilo voltage circuit. Single and three phase electric supply. Power ratings. Types of X-Ray Generator, high frequency generator, exposure timers and switches, HT cables.

#### **Radiation Physics**

Radiation units exposure, absorbed dose, units: rad, grey, relative biological effectiveness, effective dose- Rem & Sievert, inverse square law. Interaction of radiation with matter Compton & photoelectric effect, linear attenuation coefficient. **Radiation Detectors:** ionization (Thimble chamber, condenser chamber), chamber. Geiger Muller counter, Scintillation counters and Solid State detectors, TFT.

#### **Medical Imaging Physics**

Evolution of Medical Imaging, X-ray diagnostics and imaging, Physics of nuclear magnetic resonance (NMR), NMR imaging, MRI Radiological imaging, Ultrasound imaging, Physics of Doppler with applications and modes, Vascular Doppler. **Radiography:** Filters, grids, cassette, X-ray film, film processing, fluoroscopy. **Computed tomography scanner**- principle and function, display, generations, mammography. Thyroid uptake system and Gamma camera (Only Principle, function and display).

#### **Radiation Oncology Physics**

External Beam Therapy (Basic Idea): Telecobalt, Conformal Radiation Therapy (CRT), 3DCRT, IMRT, Image Guided Radiotherapy, EPID, Rapid Arc, Proton Therapy, Gamma Knife, Cyber Knife. Contact Beam Therapy (Basic Idea): Brachytherapy- LDR and HDR, Intra Operative Brachytherapy. Radiotherapy, kilo voltage machines, deep therapy machines, Telecobalt machines, Medical linear accelerator. Basics of Teletherapy units, deep X-ray, Telecobalt units, Radiation protection, external beam characteristics, dose maximum and build up – bolus, percentage depth dose, tissue maximum ratio and tissue phantom ratio, Planned target Volume and Gross Tumour Volume.

#### **Radiation and Radiation Protection**

Principles of radiation protection, protective materials-radiation effects, somatic, genetic stochastic and deterministic effect. **Personal monitoring devices:** TLD film badge, pocket dosimeter, OSL dosimeter. Radiation dosimeter. Natural radioactivity, Biological effects of radiation, Radiation monitors. Steps to reduce radiation to Patient, Staff and Public. Dose Limits for Occupational workers and Public. AERB: Existence and Purpose.

#### Physics of Diagnostic and Therapeutic Systems- II

**Diagnostic nuclear medicine:** Radiopharmaceuticals for radioisotope imaging, Radioisotope imaging equipment, Single photon and positron emission tomography. **Therapeutic nuclear medicine:** Interaction between radiation and matter Dose and isodose in radiation treatment. Medical Instrumentation: Basic Ideas of Endoscope and Cautery, Sleep Apnea and Cpap Machines, Ventilator and its modes.

#### **Suggested Readings:**

- 1. Medical Physics, J.R. Cameron and J.G.Skofronick, Wiley (1978)
- 2. Basic Radiological Physics Dr. K. Thayalan Jayapee Brothers Medical Publishing Pvt. Ltd. New Delhi (2003)
- 3. Christensen's Physics of Diagnostic Radiology: Curry, Dowdey and Murry Lippincot Williams and Wilkins (1990)
- 4. Physics of the human body, Irving P. Herman, Springer (2007).
- 5. Physics of Radiation Therapy: F M Khan Williams and Wilkins, 3rd edition (2003)
- 6. The essential physics of Medical Imaging: Bushberg, Seibert, Leidholdt and Boone Lippincot Williams and Wilkins, Second Edition (2002)
- 7. Handbook of Physics in Diagnostic Imaging: R.S.Livingstone: B.I. Publication Pvt Ltd.
- **8.** The Physics of Radiology-H E Johns and Cunningham.

#### **DSE3P: Medical Physics (Lab)**

#### Credits 02

#### **List of Practical:**

- Understanding the working of a manual Hg Blood Pressure monitor and measure the Blood Pressure.
- 2. Understanding the working of a manual optical eye-testing machine and to learn eye-testing procedure.

- 3. Correction of Myopia (short sightedness) using a combination of lenses on an optical bench/breadboard.
- 4. Correction of Hypermetropia/Hyperopia (long sightedness) using a combination of lenses on an optical bench/breadboard.
- 5. To learn working of Thermoluminescent dosimeter (TLD) badges and measure the background radiation.
- 6. Familiarization with Geiger-Muller (GM) Counter and to measure background radiation.
- 7. Familiarization with Radiation meter and to measure background radiation.
- 8. Familiarization with the Use of a Vascular Doppler.

#### **Suggested Readings:**

- 1. Basic Radiological Physics, Dr. K. Thayalan Jayapee Brothers Medical Publishing Pvt. Ltd. New Delhi (2003)
- 2. Christensen's Physics of Diagnostic Radiology: Curry, Dowdey and Murry Lippincot Williams and Wilkins (1990)
- 3. Physics of Radiation Therapy: F M Khan Williams and Wilkins, 3rd edition (2003)
- 4. The essential physics of Medical Imaging: Bushberg, Seibert, Leidholdt and Boone Lippincot Williams and Wilkins, Second Edition (2002)
- 5. Handbook of Physics in Diagnostic Imaging: Roshan S. Livingstone: B. I. Publications Pvt Ltd.
- 6. The Physics of Radiology-H E Johns and Cunningham.

Or

Credits 06

Credits 04

**DSE-3: Nano Materials and Applications** 

**DSE3T: Nano Materials and Applications** 

**Course Contents:** 

#### **Nanoscale Systems**

Length scales in physics, Nanostructures: 1D, 2D and 3D nanostructures (nanodots, thin films, nanowires, nanorods), Band structure and density of states of materials at nanoscale, Size Effects in nano systems, Quantum confinement: Applications of Schrodinger equation- Infinite potential well,

potential step, potential box, quantum confinement of carriers in 3D, 2D, 1D nanostructures and its consequences.

#### **Synthesis of Nanostructure Materials**

Top down and Bottom up approach, Photolithography. Ball milling. Gas phase condensation. Vacuum deposition. Physical vapor deposition (PVD): Thermal evaporation, E-beam evaporation, Pulsed Laser deposition. Chemical vapor deposition (CVD). Sol-Gel. Electro deposition. Spray pyrolysis. Hydrothermal synthesis. Preparation through colloidal methods. MBE growth of quantum dots.

#### Characterization

X-Ray Diffraction. Optical Microscopy. Scanning Electron Microscopy. Transmission Electron Microscopy. Atomic Force Microscopy. Scanning Tunneling Microscopy.

#### **Optical Properties**

Coulomb interaction in nanostructures. Concept of dielectric constant for nanostructures and charging of nanostructure. Quasi-particles and excitons. Excitons in direct and indirect band gap semiconductor nanocrystals. Quantitative treatment of quasi-particles and excitons, charging effects. Radiative processes: General formalization-absorption, emission and luminescence. Optical properties of heterostructures and nanostructures.

#### **Electron Transport**

Carrier transport in nanostrucutures. Coulomb blockade effect, thermionic emission, tunneling and hoping conductivity. Defects and impurities: Deep level and surface defects.

#### **Applications**

Applications of nanoparticles, quantum dots, nanowires and thin films for photonic devices (LED, solar cells). Single electron transfer devices (no derivation). CNT based transistors. Nanomaterial Devices: Quantum dots heterostructure lasers, optical switching and optical data storage. Magnetic quantum well; magnetic dots -magnetic data storage. Micro Electromechanical Systems (MEMS), Nano Electromechanical Systems (NEMS).

#### **Suggested Readings:**

- 1. C.P. Poole, Jr. Frank J. Owens, Introduction to Nanotechnology (Wiley India Pvt. Ltd.).
- 2. S.K. Kulkarni, Nanotechnology: Principles & Practices (Capital Publishing Company).
- 3. K.K. Chattopadhyay and A. N. Banerjee, Introduction to Nanoscience and Technology (PHI Learning Private Limited).
- 4. Richard Booker, Earl Boysen, Nanotechnology (John Wiley and Sons).

- 5. M. Hosokawa, K. Nogi, M. Naita, T. Yokoyama, Nanoparticle Technology Handbook (Elsevier, 2007).
- 6. Introduction to Nanoelectronics, V.V. Mitin, V.A. Kochelap and M.A. Stroscio, 2011, Cambridge University Press.
- 7. Bharat Bhushan, Springer Handbook of Nanotechnology (Springer-Verlag, Berlin, 2004).

#### **DSE3B:** Nano Materials and Applications (Lab)

Credits 02

#### **List of Practical:**

- 1. Synthesis of metal nanoparticles by chemical route.
- 2. Synthesis of semiconductor nanoparticles.
- 3. Surface Plasmon study of metal nanoparticles by UV-Visible spectrophotometer.
- 4. XRD pattern of nanomaterials and estimation of particle size.
- 5. To study the effect of size on color of nanomaterials.
- 6. To prepare composite of CNTs with other materials.
- 7. Growth of quantum dots by thermal evaporation.
- 8. Prepare a disc of ceramic of a compound using ball milling, pressing and sintering, and study its XRD.
- 9. Fabricate a thin film of nanoparticles by spin coating (or chemical route) and study transmittance spectra in UV-Visible region.
- 10. Prepare a thin film capacitor and measure capacitance as a function of temperature or frequency.
- 11. Fabricate a PN diode by diffusing Al over the surface of N-type Si and study its V-I characteristic.

#### **Suggested Readings:**

- 1. C.P. Poole, Jr. Frank J. Owens, Introduction to Nanotechnology (Wiley India Pvt. Ltd.).
- 2. S.K. Kulkarni, Nanotechnology: Principles & Practices (Capital Publishing Company).

- 3. K.K. Chattopadhyay and A.N. Banerjee, Introduction to Nanoscience & Technology (PHI Learning Private Limited).
- 4. Richard Booker, Earl Boysen, Nanotechnology (John Wiley and Sons).

Or

Credits 06

Credits 04

**DSE-3: Communication Electronics** 

**DSE3T: Communication Electronics** 

**Course Contents:** 

#### **Electronic communication**

Introduction to communication – means and modes. Need for modulation. Block diagram of an electronic communication system. Brief idea of frequency allocation for radio communication system in India (TRAI). Electromagnetic communication spectrum, band designations and usage. Channels and base-band signals. Concept of Noise, signal-to-noise (S/N) ratio.

#### **Analog Modulation**

Amplitude Modulation, modulation index and frequency spectrum. Generation of AM (Emitter Modulation), Amplitude Demodulation (diode detector), Concept of Single side band generation and detection. Frequency Modulation (FM) and Phase Modulation (PM), modulation index and frequency spectrum, equivalence between FM and PM, Generation of FM using VCO, FM detector (slope detector), Qualitative idea of Super heterodyne receiver.

#### **Analog Pulse Modulation**

Channel capacity, sampling theorem, Basic Principles- PAM, PWM, PPM, modulation and detection technique for PAM only, Multiplexing.

#### **Digital Pulse Modulation**

Need for digital transmission, Pulse Code Modulation, Digital Carrier Modulation Techniques, Sampling, Quantization and Encoding. Concept of Amplitude Shift Keying (ASK), Frequency Shift Keying (FSK), Phase Shift Keying (PSK), and Binary Phase Shift Keying (BPSK).

#### **Introduction to Communication and Navigation systems:**

**Satellite Communication -** Introduction, need, geosynchronous satellite orbits geostationary satellite advantages of geostationary satellites. Satellite visibility, transponders (C - Band), path loss, ground station, simplified block diagram of earth station. Uplink and downlink.

**Mobile Telephony System** – Basic concept of mobile communication, frequency bands used in mobile communication, concept of cell sectoring and cell splitting, SIM number, IMEI number, need for data encryption, architecture (block diagram) of mobile communication network, idea of GSM, CDMA, TDMA and FDMA technologies, simplified block diagram of mobile phone handset, 2G, 3G and 4G concepts (qualitative only).

GPS navigation system (qualitative idea only).

#### **Suggested Readings:**

- 1. Electronic Communications, D. Roddy and J. Coolen, Pearson Education India.
- 2. Advanced Electronics Communication Systems- Tomasi, 6th edition, Prentice Hall.
- 3. Electronic Communication systems, G. Kennedy, 3rd Edn, 1999, Tata McGraw Hill.
- 4. Principles of Electronic communication systems Frenzel, 3rd edition, McGraw Hill
- 5. Communication Systems, S. Haykin, 2006, Wiley India
- 6. Electronic Communication system, Blake, Cengage, 5th edition.
- 7. Wireless communications, Andrea Goldsmith, 2015, Cambridge University Press

#### **DSE3P: Communication Electronics (Lab)**

Credits 02

#### **List of Practical**

- 1. To design an Amplitude Modulator using Transistor
- 2. To study envelope detector for demodulation of AM signal
- 3. To study FM Generator and Detector circuit.
- 4. To study AM Transmitter and Receiver.
- 5. To study FM Transmitter and Receiver.
- **6.** To study Time Division Multiplexing (TDM).
- 7. To study Pulse Amplitude Modulation (PAM).
- **8.** To study Pulse Width Modulation (PWM).
- 9. To study Pulse Position Modulation (PPM).
- 10. To study ASK, PSK and FSK modulators.

#### **Suggested Readings:**

1. Electronic Communication systems, G. Kennedy, 1999, Tata McGraw Hill.

2. Electronic Communication system, Blake, Cengage, 5th edition.

**DSE-4: Digital Signal Processing** 

Credits 06

**DSE4T: Digital Signal Processing** 

Credits 04

**Course Contents:** 

**Discrete-Time Signals and Systems** 

Classification of Signals, Transformations of the Independent Variable, Periodic and Aperiodic Signals, Energy and Power Signals, Even and Odd Signals, Discrete-Time Systems, System Properties. Impulse Response, Convolution Sum; Graphical Method; Analytical Method, Properties of Convolution; Commutative; Associative; Distributive; Shift; Sum Property System Response to Periodic Inputs, Relationship Between LTI System Properties and the Impulse Response; Causality; Stability; Invertibility, Unit Step Response.

#### **Discrete-Time Fourier Transform**

Fourier Transform Representation of Aperiodic Discrete-Time Signals, Periodicity of DTFT, Properties; Linearity; Time Shifting; Frequency Shifting; Differencing in Time Domain; Differentiation in Frequency Domain; Convolution Property. **The z-Transform:** Bilateral (Two-Sided) z-Transform, Inverse z-Transform, Relationship Between z-Transform and Discrete-Time Fourier Transform, z-plane, Region-of-Convergence; Properties of ROC, Properties; Time Reversal; Differentiation in the z-Domain; Power Series Expansion Method (or Long Division Method); Analysis and Characterization of LTI Systems; Transfer Function and Difference-Equation System. Solving Difference Equations.

#### **Filter Concepts**

Phase Delay and Group delay, Zero-Phase Filter, Linear-Phase Filter, Simple FIR Digital Filters, Simple IIR Digital Filters, All pass Filters, Averaging Filters, Notch Filters.

#### **Discrete Fourier Transform**

Frequency Domain Sampling (Sampling of DTFT), The Discrete Fourier Transform (DFT) and its Inverse, DFT as a Linear transformation, Properties; Periodicity; Linearity; Circular Time Shifting; Circular Frequency Shifting; Circular Time Reversal; Multiplication Property; Parseval's Relation, Linear Convolution Using the DFT (Linear Convolution Using Circular Convolution), Circular Convolution as Linear Convolution with aliasing.

#### **Fast Fourier Transform**

Direct Computation of the DFT, Symmetry and Periodicity Properties of the Twiddle factor (WN), Radix-2 FFT Algorithms; Decimation-In-Time (DIT) FFT Algorithm; Decimation-In-Frequency (DIF) FFT Algorithm, Inverse DFT Using FFT Algorithms.

#### **Realization of Digital Filters**

Non Recursive and Recursive Structures, Canonic and Non Canonic Structures, Equivalent Structures (Transposed Structure), FIR Filter structures; Direct-Form; Cascade-Form; Basic structures for IIR systems; Direct-Form I.

**Finite Impulse Response Digital Filter:** Advantages and Disadvantages of Digital Filters, Types of Digital Filters: FIR and IIR Filters; Difference Between FIR and IIR Filters, Desirability of Linear-Phase Filters, Frequency Response of Linear-Phase FIR Filters, Impulse Responses of Ideal Filters, Windowing Method; Rectangular; Triangular; Kaiser Window, FIR Digital Differentiators. **Infinite Impulse Response Digital Filter:** Design of IIR Filters from Analog Filters, IIR Filter Design by Approximation of Derivatives, Backward Difference Algorithm, Impulse Invariance Method.

#### **Suggested Readings:**

- 1. Digital Signal Processing, Tarun Kumar Rawat, 2015, Oxford University Press, India
- 2. Digital Signal Processing, S. K. Mitra, McGraw Hill, India.
- 3. Modern Digital and Analog Communication Systems, B.P. Lathi, 1998, 3rd Edn. Oxford University Press.
- 4. Fundamentals of Digital Signal processing using MATLAB, R.J. Schilling and S.L. Harris, 2005, Cengage Learning.
- 5. Fundamentals of signals and systems, P.D. Cha and J.I. Molinder, 2007, Cambridge University Press.
- 6. Digital Signal Processing Principles Algorithm & Applications, J.G. Proakis and D.G. Manolakis, 2007, 4th Edn., Prentice Hall.

**DSE4P: Digital Signal Processing (Lab)** 

Credits 02

#### **List of Practical**

Simulations experiments based problems like:

1. Write a program to generate and plot the following sequences: (a) Unit sample sequence  $\delta(n)$ , (b) unit step sequence u(n), (c) ramp sequence v(n), (d) real valued exponential sequence  $v(n) = (0.8)^n u(n)$  for 0 < n < 50

2. Write a program to compute the convolution sum of a rectangle signal (or gate function) with itself or N=5

$$x(n) = rect\left(\frac{n}{2N}\right) = \Pi\left(\frac{n}{2N}\right) = \begin{cases} 1 & -N \le n \le N \\ 0 & otherwise \end{cases}$$

3. An LTI system is specified by the difference equation

$$y(n) = 0.8y(n - 1) + x(n)$$

- a. Determine  $H(e^{jw})$
- b. Calculate and plot the steady state response  $y_{ss}(n)$  to

$$x(n) = \cos(0.5\pi n)u(n)$$

4. Given a casual system

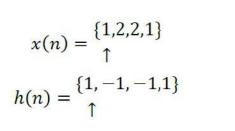
$$y(n) = 0.9y(n - 1) + x(n)$$

- a. Find H(z) and sketch its pole-zero plot
- b. Plot the frequency response  $IH(e^{jw})I$  and  $<H(e^{jw})$
- 5. Design a digital filter to eliminate the lower frequency sinusoid of  $x(t) = \sin 7t + \sin 200t$ . The sampling frequency is fs = 500 Hz. Plot its pole zero diagram, magnitude response, input and output of the filter.
- 6. Let x(n) be a 4-point sequence:

$$x(n) = \begin{cases} 1,1,1,1 \\ \uparrow \end{cases} = \begin{cases} 1 & 0 \le n \le 3 \\ 0 & otherwise \end{cases}$$

Compute the DTFT  $x(e^{jw})$  and plot its magnitude

- a. Compute and plot the 4 point DFT of x(n).
- b. Compute and plot the 8 point DFT of x(n) (by appending 4 zeros).
- c. Compute and plot the 16 point DFT of x(n) (by appending 12 zeros).
- 7. Let x(n) and h(n) be the two 4-point sequences,





Write a program to compute their linear convolution using circular convolution.

- 8. Using a rectangular window, design a FIR low-pass filter with a pass-band gain of unity, cut off frequency of 1000 Hz and working at a sampling frequency of 5 KHz. Take the length of the impulse response as 17.
- 9. Design an FIR filter to meet the following specifications: pass band edge  $F_p=2$  KHz stop band edge  $F_s=5$  KHz Pass band attenuation  $A_p=2$  dB Stop band attenuation  $A_s=42$  dB Sampling frequency  $F_s=20$  KHz
- 10. The frequency response of a linear phase digital differentiator is given by

$$\operatorname{Hd}(e^{jw}) = jwe^{-jrw} \quad |w| \le \pi$$

Using a Hamming window of length M = 21, design a digital FIR differentiator. Plot the amplitude response.

#### **Suggested Readings:**

- 1. Digital Signal Processing, Tarun Kumar Rawat, Oxford University Press, India.
- 2. A Guide to MATLAB, B.R. Hunt, R.L. Lipsman, J.M. Rosenberg, 2014, 3rd Edn., Cambridge University Press
- 3. Fundamentals of Digital Signal processing using MATLAB, R.J. Schilling and S.L. Harris, 2005, Cengage Learning.
- 4. Digital Signal Processing, S. K. Mitra, McGraw Hill, India.
- 5. Fundamentals of signals and systems, P.D. Chaand J.I. Molinder, 2007, Cambridge University Press.
- 6. Simulation of ODE/PDE Models with MATLAB®, OCTAVE and SCILAB: Scientific and Engineering Applications: A. Vande Wouwer, P. Saucez, C. V. Fernández. 2014 Springer

Or

**DSE-4: Biological Physics** 

Credits 06

#### **DSE4T: Biological Physics**



#### Credits 06

#### **Course Contents:**

#### Overview

The boundary, interior and exterior environment of living cells. Processes: exchange of matter and energy with environment, metabolism, maintenance, reproduction, evolution. Self-replication as a distinct property of biological systems. Time scales and spatial scales. Universality of microscopic processes and diversity of macroscopic form. Types of cells. Multicellularity. Allometric scaling laws.

#### Molecules of life

Metabolites, proteins and nucleic acids. Their sizes, types and roles in structures and processes. Transport, energy storage, membrane formation, catalysis, replication, transcription, translation, signaling.

Typical populations of molecules of various types present in cells, their rates of production and turnover. Energy required to make a bacterial cell.

Simplified mathematical models of transcription and translation, small genetic circuits and signaling pathways. Random walks and applications to biology. Mathematical models to be studied analytically and computationally.

#### The complexity of life

At the level of a cell: The numbers of distinct metabolites, genes and proteins in a cell. Complex networks of molecular interactions: metabolic, regulatory and signaling networks. Dynamics of metabolic networks; the stoichiometric matrix. Living systems as complex organizations; systems biology. Models of cellular dynamics. The implausibility of life based on a simplified probability estimate, and the origin of life problem.

<u>At the level of a multicellular organism:</u> Numbers and types of cells in multicellular organisms. Cell types as distinct attractors of a dynamical system. Stem cells and cellular differentiation. Pattern formation and development.

Brain structure: neurons and neural networks. Brain as an information processing system. Associative memory models. Memories as attractors of the neural network dynamics.

At the level of an ecosystem and the biosphere: Food webs. Feedback cycles and self - sustaining ecosystems.

#### **Evolution**

The mechanism of evolution: variation at the molecular level, selection at the level of the organism. Models of evolution. The concept of genotype-phenotype map. Examples.

#### **Suggested Readings:**

- 1. Physics in Molecular Biology; Kim Sneppen & Giovanni Zocchi (CUP 2005)
- 2. Biological Physics: Energy, Information, Life; Philip Nelson (W H Freeman & Co, NY, 2004)
- 3. Physical Biology of the Cell (2nd Edition), Rob Phillips et al (Garland Science, Taylor & Francis Group, London & NY, 2013)
- 4. An Introduction to Systems Biology; Uri Alon (Chapman and Hall/CRC, Special Indian Edition, 2013)
- 5. Evolution; M. Ridley (Blackwell Publishers, 2009, 3rd edition)

Or

**DSE-4: Experimental Techniques** 

Credits 06

**DSE4T: Experimental Techniques** 

Credits 04

#### **Course Contents:**

#### **Measurements**

Accuracy and precision. Significant figures. Error and uncertainty analysis. Types of errors: Gross error, systematic error, random error. Statistical analysis of data (Arithmetic mean, deviation from mean, average deviation, standard deviation, chi-square) and curve fitting. Guassian distribution.

#### **Signals and Systems**

Periodic and aperiodic signals. Impulse response, transfer function and frequency response of first and second order systems. Fluctuations and Noise in measurement system. S/N ratio and Noise figure. Noise in frequency domain. Sources of Noise: Inherent fluctuations, Thermal noise, Shot noise, 1/f noise.

#### **Shielding and Grounding**

Methods of safety grounding. Energy coupling. Grounding. Shielding: Electrostatic shielding. Electromagnetic Interference.

Transducers &industrial instrumentation (working principle, efficiency, applications)

Static and dynamic characteristics of measurement Systems. Generalized performance of systems, Zero order first order, second order and higher order systems. Electrical, Thermal and Mechanical systems. Calibration. Transducers and sensors. Characteristics of Transducers. Transducers as electrical element and their signal conditioning. Temperature transducers: RTD, Thermistor, Thermocouples, Semiconductor type temperature sensors (AD590, LM35, LM75) and signal conditioning. Linear Position transducer: Strain gauge, Piezoelectric. Inductance change transducer: Linear variable differential transformer (LVDT), Capacitance change transducers. Radiation Sensors: Principle of Gas filled detector, ionization chamber, scintillation detector.

#### **Digital Multimeter**

Comparison of analog and digital instruments. Block diagram of digital multimeter, principle of measurement of I, V, C. Accuracy and resolution of measurement.

#### **Impedance Bridges and Q-meter**

Block diagram and working principles of RLC Bridge. Q - meter and its working operation. Digital LCR bridge.

#### **Vacuum Systems**

Characteristics of vacuum: Gas law, Mean free path. Application of vacuum. Vacuum system-Chamber, Mechanical pumps, Diffusion pump & Turbo Modular pump, Pumping speed, Pressure gauges (Pirani, Penning, ionization).

#### **Suggested Readings:**

- 1. Measurement, Instrumentation and Experiment Design in Physics and Engineering,
- 2. M. Sayer and A. Mansingh, PHI Learning Pvt. Ltd.
- 3. Experimental Methods for Engineers, J.P. Holman, McGraw Hill
- 4. Introduction to Measurements and Instrumentation, A.K. Ghosh, 3rd Edition, PHI Learning Pvt. Ltd.
- 5. Transducers and Instrumentation, D.V.S. Murty, 2nd Edition, PHI Learning Pvt. Ltd.
- 6. Instrumentation Devices and Systems, C.S. Rangan, G.R. Sarma, V.S.V. Mani, Tata McGraw Hill
- 7. Principles of Electronic Instrumentation, D. Patranabis, PHI Learning Pvt. Ltd.
- 8. Electronic circuits: Handbook of design & applications, U. Tietze, Ch. Schenk, Springer.

#### **DSE4P: Experimental Techniques (Lab)**

#### Credits 02

#### **List of Practical**

- 1. Determine output characteristics of a LVDT & measure displacement using LVDT
- 2. Measurement of Strain using Strain Gauge.
- 3. Measurement of level using capacitive transducer.
- 4. To study the characteristics of a Thermostat and determine its parameters.
- 5. Study of distance measurement using ultrasonic transducer.
- 6. Calibrate Semiconductor type temperature sensor (AD590, LM35, or LM75)
- 7. To measure the change in temperature of ambient using Resistance Temperature Device (RTD).
- 8. Create vacuum in a small chamber using a mechanical (rotary) pump and measure the chamber pressure using a pressure gauge.
- 9. Comparison of pickup of noise in cables of different types (co-axial, single shielded, double shielded, without shielding) of 2m length, understanding of importance of grounding using function generator of mV level & an oscilloscope.
- 10. To design and study the Sample and Hold Circuit.
- 11. Design and analyze the Clippers and Clampers circuits using junction diode
- 12. To plot the frequency response of a microphone.
- 13. To measure Q of a coil and influence of frequency, using a Q-meter.

#### **Suggested Readings:**

- Electronic circuits: Handbook of design and applications, U. Tietze and C. Schenk, 2008, Springer.
- 2. Basic Electronics: A text lab manual, P.B. Zbar, A.P. Malvino, M.A. Miller, 1990, Mc-Graw Hill.
- **3.** Measurement, Instrumentation and Experiment Design in Physics & Engineering, M. Sayer and A. Mansingh, 2005, PHI Learning.

\*\*\*\*\*\*

(19) INDIA

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#### (54) Title of the invention: NUTRI-CHEF APPLICATION SYSTEM

:G16H0020600000, A61P0009000000,

A61B0005000000, A23L0033000000, classification G09B0019000000

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(71)Name of Applicant:

1)Dr. Souvik Tewari

Address of Applicant : Assistant Professor, Department of Food and Nutrition, Swami Vivekananda University, Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121 . -----

2)Mrs. Paromita Mukheriee

3)Dr. Ranajit Kumar Khalua

4)Dr. Poulami Adhikary Mukherjee

5)Dr. Sanjukta Kar

6)Dr. Khan Farhana Mahreen

Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor: 1)Dr. Souvik Tewari

Address of Applicant : Assistant Professor, Department of Food and Nutrition, Swami Vivekananda University, Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal - 700121 . -----

2)Mrs. Paromita Mukherjee

Address of Applicant: Assistant Professor, Department of Food and Nutrition, Swami Vivekananda University, Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal - 700121 . -----

3)Dr. Ranajit Kumar Khalua

Address of Applicant :Vice Principal & Associate Professor, Department of Zoology, Narajole Raj College, Vidyasagar University, W.B., India . ---

4)Dr. Poulami Adhikary Mukherjee

Address of Applicant :Assistant Professor and HOD, Department of Zoology, Narajole Raj College, Vidyasagar University, W.B., India . ------5)Dr. Sanjukta Kar

Address of Applicant : Assistant Professor, Department of Dietetics and Applied Nutrition, Amity University Kolkata, West Bengal, India . -------

6)Dr. Khan Farhana Mahreen

Address of Applicant :Assistant professor and HOD, Department of Home Science, Indian Institute of Food Science and Technology, Aurangabad, Maharashtra, India . -----

Nowadays all people are aware about their health and diet, but people are essentially uninformed of what to eat, when to eat, and how much of it to ingest. Obesity, Cardiovascular diseases, Polycystic Ovarian Syndrome, Hypertension, Hypercholesterolemia, Hepatic encephalopathy, and other health problems are all common as a result of people's busy lifestyles. Our application software aims to raise customer knowledge about the need of maintaining a healthy lifestyle. There are two user interfaces in this Nutri-Chef Application Software: Client Interface and Company/Office Interface. Our clients/patients can choose from a variety of options during the Client Interphase, including Healthy Diet, Therapeutic Diet, Online Doctor Counselling, Online Dietician Counselling, and Contact (for direct communication with company). An auto generated pop-up menu will show on screen based on their option to collect information about the patients' Name, Age, Sex, Height, Weight, Any specific food allergy (if any), and Food Habit. It's all about Client Interphase in this case, Fig. 1

No. of Pages: 12 No. of Claims: 4



## (http://ipindia.nic.in/index.htm)



	Application Details			
APPLICATION NUMBER	202331086981			
APPLICATION TYPE	ORDINARY APPLICATION			
DATE OF FILING	19/12/2023			
APPLICANT NAME	1 . Dr. Ranajit Kumar Khalua 2 . Mrs. Rita Mondal 3 . Dr. Madhumita Mondal 4 . Dr. Satarupa Ghosh 5 . Mr. Dinesh Gope			
TITLE OF INVENTION	DEVELOPMENT OF DIETARY FIBRE ENRICHED PREBIOTIC BISCUIT			
FIELD OF INVENTION	FOOD			
E-MAIL (As Per Record)	skdpatent@gmail.com			
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Awaiting Request for Examination					
			View Documents		



In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

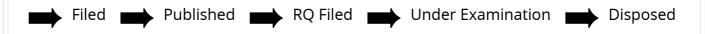


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Application Details
202331061108
ORDINARY APPLICATION
11/09/2023
1 . Dr. Souvik Tewari 2 . Mrs. Paromita Mukherjee 3 . Dr. Ranajit Kumar Khalua 4 . Dr. Poulami Adhikary Mukherjee 5 . Dr. Sanjukta Kar 6 . Dr. Khan Farhana Mahreen
NUTRI-CHEF APPLICATION SYSTEM
BIO-MEDICAL ENGINEERING
skdpatent@gmail.com
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(71)Name of Applicant:

1)Dr. Ranajit Kumar Khalua

Address of Applicant: Vice-Principal, Narazole Raj College,

Vidyasagar University, W.B., India . ------

2)Mrs. Rita Mondal

3)Dr. Madhumita Mondal

4)Dr. Satarupa Ghosh

5)Mr. Dinesh Gope

Name of Applicant: NA Address of Applicant : NA

(72)Name of Inventor:

1)Dr. Ranajit Kumar Khalua

Address of Applicant: Vice-Principal, Narazole Raj College,

Vidyasagar University, W.B., India . -----

2)Mrs. Rita Mondal

Address of Applicant :PhD scholar, Department of Home Science,

CMJ University, Meghalaya, India . -----

3)Dr. Madhumita Mondal

Address of Applicant : Assistant Professor, Department of Zoology, Ghatal Rabindra Satabarsiki Mahavidyalaya, Paschim

Medinipur, W.B., India . -----

4)Dr. Satarupa Ghosh

Address of Applicant : Assistant Professor of Food Science Department, Maulana Abul Kalam Azad University of

Technology (MAKAUT), West Bengal, India . -----

5)Mr. Dinesh Gope

Address of Applicant : Assistant Professor, Department of Zoology, Ghatal Rabindra Satabarsiki Mahavidyalaya, Paschim

Medinipur, W.B., India . -----

#### (57) Abstract:

The main objective of this research study was to develop dietary fibre enriched prebiotic biscuit. In this research study, control biscuit was developed without prebiotics and experimental biscuit was prepared by different percentage of prebiotics. As a prebiotics oats powder was used. The nutritional value of bakery goods and their potential for use in feeding programmes and emergencies captured the attention of customers. Fig. 1

No. of Pages: 9 No. of Claims: 5

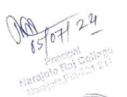


#### NARAJOLERAJCOLLEGE

(NAAC Accredited 'B' Grade Govt. Aided College) NARAJOLE: PASCHIM MEDINIPUR: WEST BENGAL: Pin-721211 Phone and Fax:+91-9933881131 E-mail:narajoleracollege@rediffmail.com

Website: http://www.narajolerajcollege.ac.in





#### **Mushroom Cultivation**

Organized by Department of Botany In collaboration with IQAC, NarajoleRajCollege

The Department of Botany of Narajole Raj College hosted Mushroom Cultivation HUB. The course's classes were conducted by the departmental teachers. Lectures, fieldtrips, and hands-on or practical experiences were among the educational modalities used.

#### **Necessity of the hub:**

The mushroom cultivation hub provided physical space that brought together the students to nurture their ideasintothemushroomindustryandthevariousmushroomproducts. Theinnovation hub helped to keep focus on the businesses related to mushroom and enabled them to come up with fresh ideas, test them, and find the best, most valuable innovation ideas.

No of Enrolled students: 30

#### **Outcomes:**

The purpose of the innovation hub to generate the confidence of self-employment among the students was achieved at its fullest. Through this course, the students learnt the various steps, procedures, duration of the mushroom bed preparation, harvesting of the mushroom from its bed and the precautions that should be taken during mushroom cultivation. They also gained knowledge about the raw marketing of the mushroom production after proper packaging. Keeping in mind the growing demand of mushroom as an important source of vegetarian protein, the recipes of the various edible and delicious mushroom products were also taught to them so that they can also plan for a startup by making use of the knowledge.













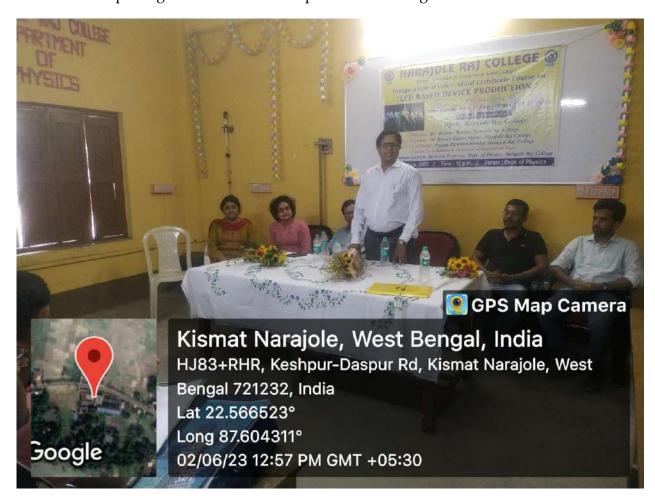


#### SKILL DEVELOPMENT DEPARTMENT OF PHYSICS NARAJOLE RAJ COLLEGE

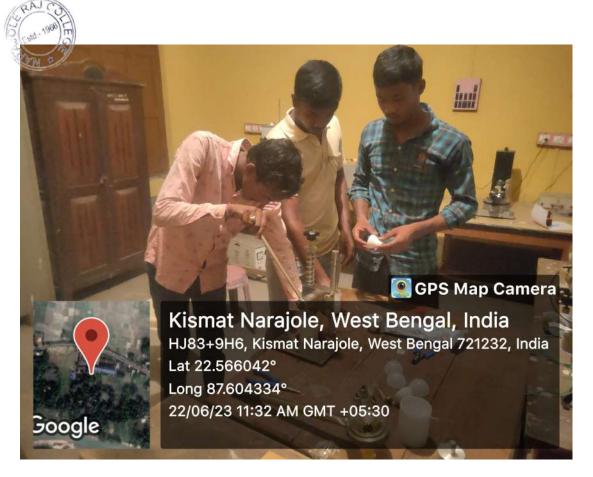
The institution has initiated Skill Development Practice on -"LED BASED DEVICE PRODUCTION" in 2023 under the supervision of the faculties of Department of Physics. Students are given hands-on training on production and repairing of LED Bulbs under the supervision of potential experts for the promotion of the skill development. Theory and practical classes are arranged regularly for the trainees. The institute provided the certificates to the trainees after the successful completion of the course.

#### **Outcome:**

This Innovation Hub and Training for LED based light production and repairing will be very popular in the near future as the institute locates in a rural area as well as local people will be highly benefited from it since the major local people are form financially weaker. Moreover, one of the students started business of LED bulb repairing after successful completion of training.



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15 of 24
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#### SKILL HUB NARAJOLE RAJ COLLEGE

The institute also initiated the Skill Hub Centre for "**Tailoring** and **Beautician Course**" with 25 seats in 2023 for girls students and local women from adapted village. The institute provided the certificate to the trainees after the successful completion of the course.

#### **Outcome:**

This certificate course will be very popular in the near future as the institute locates in a rural area as well as local people will be highly benefited from it since the major local people are form financially weaker. It will open a secondary source of earning for family as well as girls and local women will be self independent.







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(NAAC Accredited 'B' Grade Govt. Aided College)
NARAJOLE: PASCHIM MEDINIPUR: WESTBENGAL: Pin-721211
Phone and Fax:+91-9933881131:E mail: arajoleracollege@rediffmail.com
Website: thtp://www.narajolerajcollege.ac.in

# Skill Report: Hands-On In-Laboratory Training for Preparation of Household Chemicals

**Introduction:** In today's world, where sustainability, safety, and efficiency are paramount concerns, the need for skilled professionals in the field of household chemical production is evergrowing. Our innovative course, "Hands-On In-Laboratory Training for Preparation of Household Chemicals," addresses this demand by providing students with practical skills and knowledge essential for the formulation, production, and testing of household products.

#### **Course Objectives:**

- To equip students with a deep understanding of the chemistry behind common household chemicals.
- To instill best practices in safety protocols and handling of chemicals.
- Toprovidehands-onexperienceinthepreparationandtestingofhouseholdproducts.
- To foster an awareness of environmental impact and ethical considerations in chemical production.

Course Structure: The course is structured to combine theoretical knowledge with practical application through laboratory sessions. Topics covered include chemistry fundamentals, safety protocols, regulatory compliance, environmental impact, and ethical considerations. Each session includes hands-on experiments where students learn to prepare various household products under expert guidance.

**Innovation**: What sets this course apart is its emphasis on experiential learning. By providing students with the opportunity to actively engage in the formulation and testing of household chemicals, we bridge the gap between theory and practice. Furthermore, the course integrates discussions on sustainability and ethical responsibilities, preparing students to be conscientious professionals in the field.

Outcomes: Upon completion of the course, students will:

- Have a comprehensive understanding of the chemistry and production processes of household chemicals.
- Demonstrate proficiency in safety protocols and best practices for handling chemicals.
- Be capable of developing and testing their own household chemical products.
- Possess a heightened awareness of environmental impact and ethical considerations in chemical production.



#### NARAJOLERAJ COLLEGE



(NAAC Accredited 'B' Grade Govt. Aided College) NARAJOLE:PASCHIMMEDINIPUR:WESTBENGAL:Pin-721211 PhoneandFax:+91-9933881131:E-mail:<u>arajoleracollege@rediffmail.com</u>

Website: thtp://www.narajolerajcollege.ac.in

Conclusion: "Hands-On In-Laboratory Training for Preparation of Household Chemicals" is an innovative skill-building course that equips students with the practical knowledge and expertise required for a career in household chemical production. By fostering a hands-on learning environment and emphasizing sustainability and ethical considerations, the course prepares students to meet the challenges of the industry while contributing to a safer, more sustainable future.





#### Coordinators Innovation Hub

Nandita Bhakat Tapanendu Kamilya Baisali Gula. Sk Mohammad Aziz