

BROCHURE

*SHORT-TERM TRAINING COURSES ON TABLA, FOLK SONG,
FABRIC ARTWORK, RECITATION, HANDLING of
SPECTROPHOTOMETER AND PHOTOLUMINESCENCE SETUP,
HANDLING of XRD SETUP, VERMICOMPOSTING*

**P. K. College, Contai
2018-19**

SHORT TERM TRAINING COURSE ON TABLA

COURSE FEES (RS.) : Nil

Duration of course: 15 days

**Name of the course Coordinator: *Saroj Kimar
Gorai***

Contact number: 8617655323

**How to Apply: Candidates will be offered admission on First-Come-First-Serve basis.
Candidates are asked to contact the Course Coordinator to enroll their names.**

Syllabus of Tabla Certificate Course

- ❑ General Knowledge of Ancient Indian Tala System (2L)
- ❑ General knowledge of the different systems Tala Prevalent in India (4L)
- ❑ Analytical Studies of common Tala-S and Layakrie-S (10L)
- ❑ Analytical studies of different Gharana's Kayda-S (10L)
- ❑ Analytical studies of different Tukra S, Paran-S & Chakradar (8L)
Stylistic studies of different Laggi and Lari(8L)
- ❑ Talbadya Kacheri(10L)

Outcome of the course

- ❖ Preliminary theoretical idea about tabla
- ❖ Knowledge of indian different gharana of tabla
- ❖ A complete knowledge about Tukra, laggi and Lari

SHORT TERM TRAINING COURSE ON FOLK SONG

COURSE FEE (RS.) : Nil

Duration of course: 7 days

Name of the Course Coordinatator: *Mrs. Itu Pradhan*

Contact number: 9733559355

How to Apply: *Candidates will be offered admission on First-Come-First-Serve basis. Candidates are asked to contact the Course Coordinator to enroll their names.*

Syllabus of Certificate Course on Folk Song

- ❑ Language, comparison and localization of folk song (4L)
- ❑ Various forms and tradition and characteristics of Jhumur gaan (3L).
- ❑ Pater gaan' and 'Patua' (4L).
- ❑ Future of folk song (3L).
- ❑ Useful musical instruments in folk song (3L).
- ❑ One folk song from each variety of folk forms in the following:
Bhapaeta, chatka, Gambhira, Zarigaan, Sarigaan, Dhamail, Kabigaan, Tarzagaan,
Trinather gaan. Dehotatwer gaan, Agamoni, Bhatiali. (36L).

Outcome of the course

- ❖ Preliminary theoretical idea about folk song
- ❖ Knowledge about different types of folk song
- ❖ Achieving of the different style of Bengali folk song

SHORT TERM TRAINING Certificate COURSE

Fabric Artwork

Duration of Course: 7 days

COURSE FEE (RS.) : Nil

Name of the course Coordinatator: Dipika Das

Contact number: 9547953993

How to Apply: Candidates will be offered admission on First-Come-First-Serve basis. Candidates are asked to contact the course coordinator to enroll their names.

Syllabus of Fabric Artwork

- ❑ Introduction of fabric technology, concept of thread, yarn, spun. (3L)
 - ❑ Batik: History, Origin , types.Process of batik on cloth(both hand and print)
 - ❑ Materials used for batik work on cloth(4L)
 - ❑ Process of doing batik on cloth(cotton/silk/ georgette), details method. Dye method. (5L)
 - ❑ Selection of cloth , use of colour on different cloth(cotton, silk etc) (5L)
 - ❑ Practice of drawing (10L)
- Batik work: Nature work, Portrait (10L)
- Bhapaea, chatka, Gambhira, Zarigaan, Sarigaan, Dhamail, Kabigaan, Tarzagaan,

Outcome of the course

- ❖ Preliminary theoretical idea about fabric
- ❖ Hand on teaching experience on fabric work
- ❖ A deep idea on the selection of cloth to do fabric work

Syllabus of Vermicomposting

Unit-1: General account about the microbes used as biofertilizer – Rhizobium – isolation, identification, mass multiplication, carrier based inoculants, Actinorrhizal symbiosis.

Unit-2: *Azospirillum* isolation and mass multiplication – carrier based inoculant, associative effect of different microorganisms. Azotobacter: classification, characteristics – crop response to *Azotobacter inoculum*, maintenance and mass multiplication.

Unit-3: Cyanobacteria (blue green algae), Azolla and Anabaena azollae association, nitrogen fixation, factors affecting growth, blue green algae and Azolla in rice cultivation.

Unit-4: Mycorrhizal association, types of mycorrhizal association, taxonomy, occurrence and distribution, phosphorus nutrition, growth and yield – colonization of VAM –isolation and inoculum production of VAM, and its influence on growth and yield of crop plants.

Unit-5: Organic farming – Green manuring and organic fertilizers, Recycling of biodegradable municipal, agricultural and Industrial wastes – bio-compost making methods, types and method of vermicomposting – field Application.

Practical

Module I: Study of laboratory equipments: Autoclave, incubator, refrigerator, pH meter, Preparation of media for *Azotobactor*, *Azospirillum*, *Rhizobium* culture.

Module II: Mother culture preparation of *Azotobactor*, PSB, *Azospirillum*, *Rhizobium*. Preparation of liquid medium for Batch culture, Mass culture, Carrier based inoculation, counting of bacteria.

Module III: Cultivation of *Azolla* and application in rice cultivation, Isolation, identification and inoculum production for VAM.

Module IV: Vermiculture technology-preparation of Bed/Pit/Wooden box, separation of compost, non-compost material, identification of earthworm, preparation of vermicompost manure.

Module V: Packaging of manure, Application of prepared Bio-fertilizer on field, diagnosis for the effectiveness of inoculation

Course Outcomes

- Achieving of knowledge about bio fertilizer
- Knowledge of utility of bio fertilizer against synthetic fertilizer
- Hand on experiment regarding the preparation of vermicomposting
- knowledge on packaging of bio fertilizer
- Knowledge to handle several instruments Autoclave, incubator, refrigerator, pH meter

SHORT TERM TRAINING COURSE ON RECITATION

COURSE FEE (RS.) : Nil

Duration of Course: 7 days

Name of the Course Coordinatator: Debasis Mondal

Contact number: 7003281006

How to Apply: Candidates will be offered admission on First-Come-First-Serve basis.
Candidates are asked to contact the course coordinator to enroll their names.

আবৃত্তির কর্মশালার পাঠ্যক্রম

ইউনিট ১:

আবৃত্তির ইতিহাস সম্পর্কে ধারণা। স্বরতন্ত্রের গঠন ও কার্য: প্রণালী ও আবৃত্তিতে স্বরতন্ত্রের ভূমিকা। আবৃত্তি করার প্রয়োজনীয়তা ও মানসিক গঠনে ভূমিক। আবৃত্তির আঙ্গিক ও বিশুদ্ধ উচ্চারণের পদ্ধতি। বর্ণ, মৌলিক স্বরধ্বনি, যৌগিক স্বরধ্বনি, স্পর্শ স্বর, বর্ণ সম্পর্কে ধারণা এবং আবৃত্তির সাথে এর সম্পর্ক

ইউনিট ২:

ছন্দ কি ও আবৃত্তির সাথে এর যোগ। কবিতা পাঠ ও আবৃত্তির মধ্যে তফাৎ। আবৃত্তি পরিবেশনার পরিবেশ সম্পর্কে সম্মত ধারণা ও এতে মঞ্চ ব্যবহার ও নাটকীয়তার ভূমিকা সম্পর্কে ধারণা।

ইউনিট ৩:

বিভিন্ন কবি ও তাঁদের কবিতা সম্পর্কে ধারণা। আঞ্চলিক ভাষায় কবিতার একটি সম্যক ধারণা।

ইউনিট ৪:

ব্যবহারিক: কবি রবীন্দ্রনাথ ঠাকুরের, কবি কাজী নজরুল ইসলামের, সুকান্ত ভট্টাচার্যের, কবি সুকুমার রায়ের, কবি সুনীল গঙ্গোপাধ্যায়ের শুভ দশগুপ্তের এবং আঞ্চলিক ভাষার মোট ১২টি কবিতার আবৃত্তির প্রশিক্ষণ।

উদ্দেশ্য:

বিশুদ্ধ উচ্চারণ সহযোগে বাংলা কবিতার পরিবেশনার শিক্ষা এবং বাংলা কবি ও কবিতা সম্পর্কে সম্যক ধারণা লাভ। মঞ্চ ব্যবহারের শিক্ষা লাভ।

SHORT-TERM TRAINING TO HANDLE SPECTROPHOTOMETER AND PL SETUP

COURSE FEES (RS.) : Nil

Duration of Course: 7 days

Name of the Course Co-ordinator: Dr. Asim Guchhait

Contact number: 9007818596

*How to Apply: Candidates will be offered admission on First-Come-First-Serve basis.
Candidates are asked to contact the course coordinator to enroll their names.*

Syllabus of

Handling of Spectrophotometer and PL Setup

- ✓ **Absorption Spectroscopy**
 - *Introduction to absorption spectroscopy*
 - *Block diagram of absorption spectrophotometer*
 - *Working principle of absorption spectroscopy*
 - *Analysis of absorbance spectrum*
- ✓ **2. Photoluminescence Spectroscopy**
 - *Introduction to Light-matter interaction*
 - *Jablonski diagram of fluorescence*
 - *Basic idea of Phosphorescence*
 - *Difference between fluorescence and phosphorescence*
 - *Working principle of photoluminescence spectroscopy*
 - *Understanding of Photoluminescence experimental set up with block diagram*
 - *Analysis of photoluminescence spectra*
- ✓ **Difference between absorption and photoluminescence spectroscopy**
- ✓ **Analogy between different optical characterization tools.**

Course Outcome

- Detailed knowledge about the UV and fluorescence spectrophotometer instrument
- Expertise to handle the two spectrophotometers
- Details knowledge about the principle of the two spectro photometer.

SHORT-TERM TRAINING TO HANDLE XRD SETUP

COURSE FEES (RS.) : Nil

Duration of Course: 7 days

Name of the Course Co-ordinator: Dr. Pijus Kanti Samanta

Contact number: 9007818596

How to Apply: Candidates will be offered admission on First-Come-First-Serve basis. Candidates are asked to contact the course coordinator to enroll their names.

Syllabus of Handling of XRD SETUP

- Properties of X-rays;
- Geometry of Crystals;
- Crystal structure;
- Diffraction: Directions of Diffracted Beams; Bragg's Law & Laue's equation; Reciprocal lattice system;
- Applications: Crystal Structure Determination; Experimental Methods: Powder, Grazing Incidence
- Hands on demonstration on the operation of X-ray diffractometer;
- Collection of diffraction data.
- Determination of crystallite size, strain, lattice parameters.

Course Outcomes

- Detailed knowledge about the XRD
- Expertise to handle the XRD instrument
- Details knowledge about the principle of XRD



**Brochure of the Certificate Course
On
Ancient Heritage of India
(Inception of Course: 2017-18)**

An Initiative to inculcate values among students

Prabhat Kumar College, Contai

CERTIFICATE COURSE ON *SOLAR TECHNOLOGY*

COURSE FEES (RS.) : Nil

Course Duration : Six months

Name of the course Coordinators:

Subir Samanta

Contact number: 9474599840

How to Apply: Interested students will submit their biodata to the coordinator. The selected candidates will be finalized after a short screening test.

SYLLABUS

Syllabus

Unit -1 Indian Culture: An Introduction and Historical Perspective

10 classes – 10 Hours

1. Characteristics of Culture: Significance of Geography on Indian Culture, Roots of Indian Culture in Sindhu-Saraswati Civilization and Vedic Culture.
2. Society in Ancient Period – Varna & Jati, Family and Marriage in India, Position of Women in Ancient India.
3. Religion and Philosophy (Ancient Period), Pre-vedic and Vedic Religion, Buddhism and Jainism, Indian Philosophy – Vedanta and Mimansa School of Philosophy.

Unit – 2 Indian Languages and Literature

10 classes – 10 Hours

1. Evolution of Script and Language in India: Harappan Script and Brahmi Script.
2. Short History of Sanskrit literature – the Vedas and Brahmins and Upanishads and Sutras, Epics: Ramayana and Mahabharata and Puranas.
3. History of Buddhist and Jain Literature in Pali, Prakrit and Sanskrit, sangama Literature.

Unit – 3 A Brief history of Indian Art and Architecture

10 classes – 10 Hours

1. Indian Art and Architecture : Gandhara School and Mathura School of Art, Hindu temple Architecture, Buddhist Architecture.
2. Indian Painting Tradition (Ancient)
3. Performing Arts – Divisions of Indian Classical Music – Hindustani and Carnatic Dance of India: Various Dance forms: Classical and Regional.

Course Outcomes

1. To teach the learners to pay honour to great Indian Culture and implement value sense in livelihood.
2. To establish a link between culture and heritage.
3. To develop among the learners a feeling of the love and a sense of belongingness towards the nation.
4. To impart knowledge about the glories culture and rich heritage of the country.
5. To acquaint the learners with the great contributors of our ancestors in the areas of philosophy, science, art, music, architecture etc.
6. To acquaint the learners with underlying unity among different religions in India and unity in other diversities.