

#### OFFICE OF THE PRINCIPAL

## PUB-KAMRUP COLLEGE

#### P.O.- BAIHATA CHARIALI

DIST.- KAMRUP (ASSAM), PIN- 781381

E-mail: principal@pubkamrupcollege.org

Phone: 03621-286300

1519/2016

#### ADVANCED DIPLOMA IN LABORATORY TECHNICIAN (ADMLT)

Name of the Program: Advanced Diploma in Laboratory Technician

Year of Introduction: 2013-14

Duration: 02 years

## **Program Outcome:**

1. To produce skill-based manpower in paramedical field.

2. To provide General science students wit the diploma as an add-on course for enhancing the scope of their employability.

#### **Course Outcome:**

**Course-I:** Biochemistry, Anatomy and Histopathology (Theory): **After completing the course students will learn** 

- Diagnostic tests Glucose Tolerance test, Blood urea, serum uric acid, Serum Creatinine
- Methods of collection of clinical specimen for Micro biological investigation –
  a. Sputum Petroff's method of concentration, urine, swabs, stool, blood, CSF and aspirations
- Processing of clinical specimen collected for isolation and identification of organisms. Preparation of direct smear and staining.
- · Different methods of staining.
- Pathological analysis of urine-specific gravity, pH, reaction, colour.
- Chemical examination of sugar albumin, bile salts, bile pigments.
- Pathological examination of sputum.
- Semen analysis counting, motility, staining and morphology
- Body fluids D.C of peritoneal, pericardial, pleural fluids and CSF, identifying and counting of cells.
- Enzyme linked immune assays.

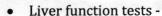
- a transferenti
- dedicate coast a facilità manage.
- . The state of the same of the
- and the section of th
  - Both in the second of the seco
  - All from You have a many or to the tension of the last of the second of the last of the la
- all all the second of the seco
- Another representation of the control of the contro

## and the second of the second o

- intending) or a small har congratuation of the plant
- one and the second of the seco
- Industrial a marriage to the conditions being a condition of the condition
  - attention mental \*
- Details appear to the entire of the material of the management of
  - ment of the second of the second of the second of
- Stade of the non-Cropps control frame configuration (affigure);
  Joseph Control for the stage of the configuration of the configuration.
- by the second of the second of
- hard and the second of the sec
- \* The Court Court
- molycoller at the late Wissers of consequent over the 12 to
- e especiale de compositiones de la companya de Margares de Margare
- relevant commercial to program to tremmer design
  - FOR THE PROPERTY OF THE PROPER
    - and the second second second
- ANT TO THE PERSON OF THE PERSO
- a basic at the second of the second s

## Parent III Charle Hardwalls - Court Collins

· Militaremain assiment in start water confunds order.



- Serum bilirubin determination.
- Urine examination in assessing kidney function.
- Techniques of different tests including tubeless gastric analysis.
- Serum bilirubin determination.
- Urine examination in assessing kidney function.
- Techniques of different tests including tubeless gastric analysis.
- Estimation of various thyroid hormones and their interpretations, recent methods of thyroid function tests.

#### Paper - II Biochemistry and microbiology (Theory), Marks - 75

- Principle, Maintenance and handling of Compound Microscope
- Sterilization and disinfection Classification and Methods
- Cleaning, drying and sterilization of glassware disposal of contaminated material, Handling of Biomedical Wastes
- Biomedical basics
- Detailed description of the biomedical equipments used in emergency management of patients.
- Morphology and Classification of Bacteria
- Study of Human Organs Brain, Stomach, Lungs, Intestine, Heart, Kidney, Liver, Uterus, Spleen, Fallopian tubes, Reproductive system
- Separation of solid from liquids, Centrifugation Its principle, different types of centrifuges, care and maintenance and applications,
- Definition, Properties, Difference between Mixture and Compound, Formulae of Common Compounds
- Heat Definition, Types and effects of heat, Measurement of Heat, Boiling Point, Melting Point, Freezing point
- Light and Temperature:: Source, Wave Length, reflection and Refraction, Measurement of colour
- Specific Gravity: Definition of Mass and Weight, **Determination of Specific Gravity**
- Instrumental methods of Biochemical Analysis: Operation, Application, Care and maintenance
- Colorimeter
- Spectrophotometer
- Precaution and smearing techniques and labeling of the
- Personal safety precautions, WHO Safety Code for microbiology lab, Reagents and chemicals used in Microbiology lab

# Paper- III Clinical Biochemistry (Practical)

Microscopic sediment for RBC, WBC, epithelial cells, Casts, crystals, parasites.

- Preparation of reagents.
- RBC, WBC count, Platelet count, Reticulocyte count, haemoglobin estimation, estimation of PCV and ESR study.
- Human slides Epithelial tissue, Connective tissue, Muscular tissue, Nervous tissue, Liver, Kidney, Spleen, Pancreas, Lymph nodes, Skin, Testes, Ovary, Uterus, Tonsil, Stomach layers, Small intestine, Large intestine.
- Blood pressure estimation.
- · Temperature, pulse, respiration chart.
- · Study of Human Skeleton.
- · Name of the bones.
- Identification points.
- · Surfaces of bones.
- Instrumental methods of Biochemical Analysis: Operation, Application, Care and maintenance
- · Colorimeter b. Spectrophotometer
- Filtration using funnel
- Sterilization and disinfection Classification and Methods
- Blood sugar test
- Collection of specimen blood, urine precautions during collection, preservation and preservation
- Collection of blood through vein puncture, finger puncture and vacutainer methods,
- · Physical and chemical examination of urine

ghs.

Principal/Vice Principal

**Pub Kamrup College** 

Vice-Principal Pub-Kamrup C: 11-ge Baiheta Charieli

