

- 6) Analysis of DNA fingerprints and FISH images.
- 7) Manual DNA sequencing and data analysis.
- 8) Dermatoglyphics: Recording of print of fingertips and palm.
- 9) Amniotic fluid culture: Flask method and Cover slip method.
- 10) Chorionic villi culture: Short term culture
- 11) Chromosomal analysis from product of conception (abortus study)
- 12) Disease suspicion by spot tests: Fanconis syndrome, PKU, maple syrup urine disease, Tryptophanuria.

Paper DLT O02 Clinical Biochemistry II

THEORY

Module 1

- Carbohydrate metabolism: Clinical aspects of Regulation of Blood sugar and Diabetes
- Protein metabolism: starvation, and protein energy malnutrition
- Lipid metabolism Clinical aspects of lipid profile, arteriosclerosis.

Module 2 & 3

- Gastric function tests.
- Pancreatic function tests.
- Liver function tests.
- Thyroid function tests.
- Cardiac function test
- Kidney function test

PRACTICALS

1. Chemistry of saliva.
2. Chemistry of gastric juices
3. Estimation of bilirubin.
4. Estimation of glucose in blood. GTT and its interpretation

5. Estimation of serum proteins.
6. Estimation of blood urea.
7. Estimation of creatinine in blood.
8. Estimation of uric acid in blood.
9. Normal urine.
10. Full urine report.
11. Clearance tests - Demonstration
12. Demonstration of liver function/ cardiac function / kidney function tests.
13. Serum lipid profile
14. C.S.F. examination.

Paper DLTO 03: Clinical parasitology, mycology and virology

THEORY

Module 1: Parasitology:

- Introduction to parasitology terminologies, definitions, relationships.
- Protozoa: geographic distribution, habitat, morphology, life cycle, pathogenecity, laboratory diagnosis of the following parasites:
 1. *Entamoeba histolytica*
 2. *Giardia lamblia*
 3. *Trichomonas vaginalis*
 4. *Leishmania donovani*
 5. *Plasmodium*
 6. Coccidian parasites causing diarrhea
- Cestodes: On the same line as protozoan parasites for the following:
 1. *Taenia sagenata*
 2. *Taenia solium*
 3. *Echinococcus granulosus*
- Helminths: On the same line as protozoan parasites for the following:
 1. *Trichuris trichiura*
 2. *Ankylostoma duodenale*
 3. *Ascaris lumbricularis*
 4. *Enterobius vermicularis*

Module 2: Mycology :

- Introduction to mycology including classification
- *Candida albicans* and other candida species
- Dermatophytes
- *Cryptococcus*
- Opportunistic fungi (*Aspergillus*, *Pencillium*, *Mucor*)