

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 saganata*
 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 lumbricaris*
 4. *Enterobius vermicularis*

Module 2: Mycology :

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

NB: Serial no: ii-v will be on the basis of morphology, cultural characters, biochemical (if any), antigens, pathogenecity and laboratory diagnosis.

Module 3: Virology:

- General virology: Definations, classification, properties of viruses, viral replication, cultivation, laboratory diagnosis.
- Systemic virology: On the basis of structure, cultivation, pathogenicity, Laboratory diagnosis of the following viruses:
 - i) Bacteriophage
 - ii) Picomaviruses (Polio viruses)
 - iii) Rhabdoviruses (Rbies virus)
 - iv) Arboviruses (Dengue, Chikungunya, JE)
 - v) Influenza virus
 - vi) Hepatitis virus
 - vii) HIV
 - viii) Herpes virus

PRACTICALS

A) Parasitology

- 1) Stool examination: gross, microscopic, for adult parasite, segment of Taenia, ova, cysts, and larvae of parasite, etc.
- 2) Gross and microscopic features (whenever applicable) of intestinal/ vaginal protozoa.
- 3) Laboratory diagnosis of malaria: demonstration of whole parasite, parasite antigen, enzymes, serology, etc.
- 4) Gross and microscopic features of cestodes: to include adult worms,segment, larvae, eggs.
- 5) Gross and microscopic features of Helminthes: to include adult worms, eggs, larvae.

B) Mycology

- 6) Diagnostic features- practical demonstration of gross and microscopic features (wet mount, slide culture) and other tests whenever applicable for following: Candida, Cryptococcus, Dermatophyte, Oppurtunistic fungi.

C) Virology :

- 7) General virology: types of symmetry, morphology of virus models, cultivation in embryonated egg
- 8) Laboratory diagnosis of the following viruses: Poliovirus, Rhabdovirus, HIV, Hepatitis.
- 9) Bacteriophage—structure using a model.