

## **Clinical Practice I (Microbiology and Parasitology)** **(Hospital/Laboratory Based)**

Students will be posted in hospital/laboratory with microbiology and parasitology facilities for 8 weeks at the end of course (i.e. in third year) for clinical practice. For this, students must be posted in all related Departments/Section of diagnostic laboratory on rotation basis.

### **Course Description**

This clinical practice program is designed to help the students to apply the comprehensive knowledge and skills learned in the training institute on actual situations. The program is offered after completing twelve weeks institution-based training in the third year.

### **Course Objectives**

At the end of the course, the students will be able to:

1. Perform all routine and some special laboratory procedures independently and accurately as mentioned below, and
2. Build confidence in laboratory procedures.

### **Placement schedule**

The whole class of students will be divided into five groups and placed in the following sections of the pathology department.

<b>S.N.</b>	<b>Practical Areas</b>	<b>Duration</b>
1.	Microbiology Lab.	5 Weeks
2.	Parasitology Lab	4 Weeks
	<b>Total Duration</b>	<b>9 Weeks</b>

### **Skills to be performed during the clinical practice**

Each student should perform the following skills independently and accurately during the clinical practice.

#### **A. Bacteriology**

- Microscopy
- Sample collection
- Sterilization and safety precautions
- Gram stain
- AFB stain (Tuberculosis/ leprosy)
- Urine culture/ sensitivity
- Blood C/S
- Pus culture/ sensitivity
- Stool C/S
- Throat swab C/S
- Body fluid C/S
- Wound swab C/S

## **B. Immunology/Serology**

- Widal test
- RPR (VDRL) test
- Rheumatoid Arthritis factor (RA factor) test
- Antistreptolysin 'O' (ASO) test
- C-Reactive Protein (CRP) test
- Aldehyde test
- HIV I-2 antibody spot (Quick) test
- HBs Ag spot (Quick) test
- Anti HCV spot (Quick) test
- TPHA (Treponema pallidum Hemagglutination) test

## **C. Parasitology**

- **Urine Analysis**
  - Routine/Microscopic examination
  - Protein
  - Glucose (sugar)
  - Specific gravity
  - Bile salt Bile pigment
  - Reducing substances
  - Acetone/Ketone
  - Urine pregnancy test (Qualitative)
  - Chyle
  - Urobilinogen
  - Benedict test
  - Sulfosalicylic acid test
- **Stool Examination**
  - Routine/Microscopic Examination
  - Occult blood test
  - Reducing Substances
  - Concentration method for parasitic ova & cysts
  - H. pylori antigen test

## **D. Miscellaneous:**

- Perform semen analysis.
- KOH & germ tube test for fungal study.
- CSF/body fluid for:
  - Cell count (TLC & DLC)
  - Sugar estimation.
  - Protein estimation.

Students should be present in the departments at least 90% of the allotted days to be eligible to sit in the final examination. Students will have to perform all tests under the supervision of departmental staff and may be allowed to perform tests independently if the supervisor finds them perfect. Students should keep their practical record (logbook) signed periodically by their supervisor/instructor at the end of the posting in each subject.