

Pravara Institute of Medical Sciences (Deemed University)

Loni Bk - 413 736, Tal. Rahata, Dist. Ahmednagar (MS)

Established Under Section 3 of UGC Act 1956, Vide Govt. of India Notification
No.F.9-11/2000-U.3, dated 29th September 2003



Syllabus

D.M.L.T



Email : pravara@bom3.vsnl.net.in Fax : + 91 - 2422 - 273 442, Phone No. 273600 Extn. 1226,
Homepage : [http:// pravara.com](http://pravara.com)



Pravara Institute of Medical Sciences

(Deemed University)

Loni Bk. 413 736, Tal. Rahata, Dist. Ahmednagar, (MS)

SYLLABUS FOR DMLT COURSE

CLINICAL PATHOLOGY

(For theory and practical together)

- a) Laboratory management and planning. The reception and recording specimen, cataloguing and indexing. Maintains of Laboratory records.
- b) The use and care of the following Haemocytometer, haemoglobinometer, haematocrit tubes, wester gren tubs pipettes, urinometer, centrifuge, haematocrite centrifuge, simple glass manipulation
- c) Methods of counting red cells, Leucocytes, reticulocytes and platelets.
- d) Haemoglobin estimation. The use of haematocrite. Calculation of absolute values. Detection of abnormal haemoglobin by paper electrophoresis. The detection of sickling. The detection foetal haemoglobin.
- e) Preparation and staining of peripheral smears and bone marrow smear. Techniques for demonstrating L.E. cells, Survival staining etc. Study of pathogenic blood parasites, their morphology and dentification.
- f) Use of spectroscope and recognition of absorption spectra of haemoglobin derivatives.
- g) Method of investgating bleeding disorder-i.e. bleeding and clotting time, Thromboplastin generation test.
- h) Method of investigating haemolytic anemia e.g. osmotic fragility test, Coomb's test, Ham's acid serum test.
- i) Estimation of E.S.R.
- j) Routine physical, chemical and microscopic examination of Urine.
- k) Routine naked eye and microscopic examination of stool. Study of common parasitic cysts and ova in stool
- l) Other body fluids
- m) Semen analysis

- n) Cytology
- o) Pregnancy test

Blood Transfusion Techniques :

- a) Blood bank managements and planning. the reception and recording of specimen, Cataloguing and indexing. Maintenance of blood bank records.
- b) Knowledge of maintenance and working of Refrigerators, and Blood Storage cabinets. Incubators, Ovens, Autoclave stills preparation and Sterilization of Transfusions set etc.
- c) Theory including inheritance and nomenclature of the ABO and Rh blood Group system, other blood groups, Techniques for the determination of the various blood group, Selection and preparation of the grouping sera. Sources of the error in grouping and their elimination group sera titration Coomb's test
- d) A thorough knowledge of compatibility test is essential Recognition and investigation of transfusion. Transmission of disease by transfusion, The V.D.R.L. test. Various techniques for HIV/ detection. Preparation and sterilization of transfusion sets.
- e) Collection and storage of blood. Techniques of collection, Storage of blood, Criteria for fitness for use of stored blood, Selection of blood donors. Complication and censure.
- f) Method of Preparation of common stains, solutions and their standardization.

HISTOPATHOLOGY :

- a) Laboratory management and planning. The receiving and recording specimen, cataloguing and indexing. Maintenance of Laboratory records.
- b) A knowledge of maintenance and use of the following. Microtome, knives, Paraffin embedding bath, Tissues floatation bath, Refrigerators, Thermostat, automatic Tissue processor, Vacuum embedding baths, hot plates Freezing microtome, simple glass manipulations
- c) Fixation – Action of common fixing agent, Use of common fixative
- d) Decalcification- Methods in common use for decalcification
- e) Processing- Common methods of processing the tissues for paraffin section