

Syllabus for Integrated PhD (2015-2016)

Paper II: Methodology Parasitology

Max. Marks: 100

Time allowed: 3 hours

UNIT 1: TOOLS

- 1.1 Light Microscope
 - a) Compound Microscope
 - b) Phase contrast Microscope
- 1.2 Electron Microscope
 - a) Scanning Electron Microscopy (SEM)
 - b) Transmission Electron Microscopy (TEM)
- 1.3 Photomicrography and Micrometry
- 1.4 Microtomy

UNIT 2: PARASITOLOGICAL TECHNIQUES

- 2.1 Coprological examination for parasites
- 2.2 Fixatives and methods of fixation
- 2.3 Preservation and staining techniques
- 2.4 Preparation of permanent mounts for microscopic study

UNIT3: IMMUNOLOGICAL TECHNIQUES

- 3.1 Immunoelectrophoresis
- 3.2 Agglutination test
- 3.3 Enzyme Linked Immunosorbent Assay
- 3.4 Complement Fixation Test

Unit IV: Statistics and preparation of manuscript

- 4.1. a) Sampling methods for collecting data, processing and analysis of data.
b) Manuscript writing and presentation of data.
- 4.2. Correlation and regression analysis.
- 4.3. Tests of significance (t-test and chi-square test).
- 4.4. Multivariate analysis, non-parametric tests (Mannwhiteny U test) and one way analysis of variance-(ANOVA)