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

UNIT 3: 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)