

Syllabus: Ph.D. Entrance Exam 2023

RESEARCH METHODOLOGY

Design of research experiments; definitions of various types of clinical trials; randomization; hypothesis testing; types of variables; type-1 and type-2 error in null hypothesis, probability and confidence interval, standard deviation and standard error; t-test, P-Value, ANOVA, manual and computer based methods of calculation of statistical significance; method and sources of literature survey; basics of bioinformatics, ethics of scientific experiments and publications; Plagiarism; Intellectual property rights; Good laboratory practice; Data archiving and management; Human and animal ethical committee: mandate, structure, & guidelines; Biosafety aspects for human and ecosystem in scientific experiments;