



National Institute of Technical Teachers' Training and Research, Bhopal (Deemed to be University under Distinct Category)

Ph.D. Programme Curriculum for Entrance Test – Category-II

Maximum Marks -50

Section-A (Research Methodology) - Common for all Schools

UNIT 1: Introduction to Research and Research Problem	Types of research, objectives of research, characteristics of a good research, scope, and objectives of research, research problem, techniques involved in defining a problem.
UNIT 2: Research Design and Literature Review	Research design concept and importance, features of a good research design, types of research designs, literature survey, need, objectives and sources of literature review, identification of research gaps
UNIT 3: Sampling and Data Collection:	Sampling, sample size, sampling and non-sampling errors, sampling design and its types, Classification of data, collection of primary and secondary data, selection of appropriate method for data collection.
UNIT 4: Data Analysis:	Hypothesis, Definition of null and alternative hypothesis, testing the hypothesis, student 't' distribution, chi-square distribution, ANOVA, Regression analysis, simple linear regression, validation and parametric study.
UNIT 5: Report Writing and publication:	Types of reports, steps and layout of report writing, writing research paper, ethical practices.