

Central University of Rajasthan

Ph.D. Admission – Written Test Syllabus

The question paper consists of 100 MCQs. The exam shall be for duration of TWO hours. The question paper shall be divided in two parts; Part-I: Research methodology (50 MCQs) and Part -II: concerned subject (50 MCQs). There is no negative for wrong answer.

Part - I:

A. Research Methodology (50 Marks) (For Science Programmes)

1.	Research and Type of Research: Meaning of Research, Types (primary, secondary, qualitative, quantitative, basic, applied, fundamental, empirical), Identification of research problem, Objectives of Research, Motivation in Research, Research methods vs. Methodology. Criteria of good research.	About 15 Questions
2.	Data Collection and Interpretation: Data, Types of Data, Methods of Data Collection, Samples and sampling techniques, Sampling errors, Types of statistical errors, Statistical methods/Tools – Measures of Central Tendency and Variation, Test of Hypothesis – z test, t test, F test, ANNOVA, Chi square, correlation and regression analysis, Error Estimation.	About 10 Questions
3.	Scientific Writing: Structure and Components of Scientific Reports – Types of Report – Technical Reports and Thesis, Components of Research Reports, Significance, Graphic representation of data, Referencing Styles, Impact factor, h-index, i-10 index and other research related parameters.	About 10 Questions
4.	Research Ethics: Plagiarism, its types. Ethics in research and introduction to ethical misconducts like self-plagiarism, ghost-writing, salami publications and undue benefits. An understanding of the publishing ethics in sciences.	About 10 Questions
5.	Intellectual Property Rights: Introduction to patents, trademarks, copyrights, industrial designs, geographical indications and traditional knowledge.	About 5 Questions