

**CERTIFICATE IN RESEARCH METHODS OF SOCIAL SCIENCES
1 SCHEME OF EXAMINATIONS**

PAPER	SUBJECTS	CREDIT	MAX MARKS		TOTAL
			INT	EXT	
Paper - I	Introduction to Social Sciences Research Methods	4	25	75	100
Paper - II	Statistics for Social Science	4	25	75	100
Paper - III	Qualitative Research Methods	4	25	75	100
Paper - IV	Literature Review and Academic Writing	4	25	75	100
Paper - V	Research and Publication Ethics	4	25	75	100

2. SYLLABUS

Paper I: Introduction to Social Sciences Research Methods

Unit I: Foundations

Nature of Reality. Modes of Knowing Reality. Scientific Attitude. Introduction to Social Science Research. Historical Development Social Research-Research Paradigms. Research Process. Logic of Induction and Deduction. Role of Theory in Research. Qualities of Good Research. Research Process- Sources of Research Problems. Importance of Literature Review.

Unit II: Social Measurement and Causal Inferences

Social Measurement- Conceptualisation, Operationalisation. Levels of Measurement. Index. Measurement Validity and Reliability. Causal Inferences-Ideographic and Nomothetic Explanation. Language of Variables. Types of Variables. Developing Propositions and Hypothesis. Building Models. Experimental Design. Overview of Randomised Control Trials (RCTs).

Unit III: Research Designs

Varieties of Research Design. Qualitative Vs Quantitative Research. Types of Research Methods. Experimental Design. Longitudinal Design. Sources of Data-Primary and Secondary Sources. Tools for Data Collection. Interviewing, Survey, Observations, Focus Groups and Hybrid Methods. Online Search Strategies- Social Science Research Databases. Formulating Research Questions and Testable and Falsifiable Propositions.

Unit IV: Sampling Design and Common Research Methods

Sampling Design-Thinking Probabilistically. Census, Probability and Non-Probability Sampling. Different Types of Probability Sampling Methods Common Methods-Content Analysis. Secondary Research. Historical Research. Policy Research. Visual Methods.

Unit V: Survey Research.

Steps in Survey Research. Questionnaire Design. Online Survey Design. Survey Administration-Data Cleaning-Coding. Conducting Opinion Polls. Statistical Package for data Analysis. Data Cleaning. Descriptive Data Analysis-Frequency and Cross-Tabulation Data Visualisation. Logic of Hypothesis Testing and Tests of Significance. Role and Relevance of Statistics. Working with Statistician.

References

1. Babbie, E., Edgerton, J. D., & Roberts, L. W. (2017). Fundamentals of Social Research. Nelson Education Limited.
2. Babbie, E. R. (2016). The Basics of Social Research. Cengage Learning.
3. Babbie, E. R. (2020). The Practice of Social Research (Vol. 1). Cengage Learning.

4. Bhattacharjee, A. (2012). Social Science Research: Principles, Methods, and Practices. Anol Bhattacharjee.
5. Creswell, J. W. (2016). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Second edition). SAGE Publications, Inc.
6. Grønmo, S. (2019). Social Research Methods: Qualitative, Quantitative and Mixed Methods Approaches. SAGE.
7. Neuman. (2014). Social Research Methods: Qualitative and Quantitative Approaches, 7e (7 edition). Pearson Education India. Overview of Jeffrey's Amazing Statistics Program (JASP) OR SPSS.

Paper II: Statistics for Social Research

UNIT I: Overview

Introduction to Statistics-Meaning, Need and Importance of Statistics. Functions and limitations of statistics for Reporting. Types of Data Analysis Reporters can do- Descriptive Statistical Methods, Inferential statistical methods, Source of data-primary and secondary, Measurement: Recap-Scales of Measurement, Variables: Discrete and Continuous variables.

UNIT II-Data-Coding, Tabulation and Classification of Data.

Data Basics-Frequency Distributions- Discrete and continuous, Cumulative frequencies, Percentage frequencies. Shape of frequency distributions: Unimodal and bimodal, Symmetrical and skewed distributions, Normal and Kurtosis distribution. Storytelling with Data. Graphical Representations-Bar Graph, Histogram, Pie Graph, Frequency Polygon, Ogive. Advantages of graphical representation. Graphical representation of ungrouped data-Bar diagram, Pie diagram and Graphs. Using JASP OR SPSS for Descriptive Statistics.

UNIT III-Searching for Patterns in Data

Measures of Central Tendency-Arithmetic mean, Geometric mean, Harmonic mean, Weighted mean, Combined mean, Median and mode, Merits and demerits of measures of central tendencies. Measures of Variability-The range, Quartile Deviation, Inter quartile and semi- quartile range, Average Deviation, Standard deviation and variance, Coefficient of variation and

UNIT IV: Finding Associations in Data

Measures of Association. Correlation-Types of correlation: Positive and Negative linear correlation, Linear and curvilinear, Simple, Multiple, Partial. Estimating the Correlation Coefficient - Pearson Product-moment, Zero strength of the correlation. Rank order Method, testing its significance. Logic of Regression Analysis. Using JASP OR SPSS for Inferential Statistics and Measures of Associations.

UNIT V: Hypothesis Testing-Learning from Mistakes

Hypothesis testing – Fundamental ideas – Type I and type II Errors Large sample Test – small sample test –t, F, Chi – square (without proof) – simple applications. Sampling procedures – simple, stratified and systematic. Normal Distribution–Characteristics, Measures of Divergence from normality, Skewness, Kurtosis. Using Statistical Analysis Software. Overview of Weka Workbench.

References

1. Frankfort-Nachmias, C., Leon-Guerrero, A., & Davis, G. (2019). Social Statistics for a Diverse Society. SAGE Publications.
2. Grønmo, S. (2019). Social Research Methods: Qualitative, Quantitative and Mixed Methods Approaches.SAGE.
3. Lohr, S. L. (2019). Sampling: Design and Analysis: Design and Analysis. CRC Press.
4. Moon, S. M. (2019). Statistics for the Social Sciences: Moving Toward an Integrated Approach. Cognella Academic Publishing.
5. Halter, C. P. (2020). Quantitative Analysis: With JASP Open-source Software. Independently Published.

Paper III: Qualitative Research Methods

Unit I-Introduction to Qualitative Methods

Overview of Qualitative Research Methods. The Concept of Qualitative Research. A Brief History of Qualitative Research. Definitions of qualitative research methodology. Characteristics of Qualitative Research. Strengths of Qualitative Research. Challenges and Limitations of Qualitative Research. Role of Researcher. Qualitative Research Process

Unit II: Theory in Qualitative Research

Overview of Theories and Methods in Qualitative Research. Paradigms and Methodologies. Positivist Paradigm. Critical Paradigm. Social constructionism. Criticisms of Social. Constructionism. Interpretivism. Critical Realism. Ethnomethodology. Symbolic Interactionism. Phenomenology. Narrative Analysis. Literature Review for Qualitative Research

Unit III: Approaches of Qualitative Research

Approaches of Qualitative Research. Case Study. Ethnography. Varieties of Qualitative Research Designs. Goals of the Study. Formulation of the Research Questions. Research Setting Case Studies. Comparative Studies. Sampling in Qualitative Research-Theoretical Sampling-Gradual Selection as a General Principle in Qualitative Research- Purposive Sampling and Theoretical Sampling-Criterion of convenience

Unit IV: Tools for Data Collection and Analysis

Interviewing Method. Participant Observation. unobtrusive Measures. Unstructured Surveys. Text Data. Participatory Action Research. Grounded Theory Methodology. Analytic Induction. Reflexivity. Triangulation. Thick Description. Qualitative Data Analysis-Coding Schemes. Open and Axial Coding. Using Computer Assisted Qualitative Data Analysis Software

Unit V--Methods in Qualitative Research

Quality Assessment as a Challenge for Qualitative Research. Generalisation in Qualitative Research. Standards and Control. Selection. Resources. Reliability and Validity in Qualitative Research. Quality of Qualitative Research-Guidelines for authors and reviewers of qualitative studies PISSM COREQ Checklist- Ethics in Qualitative Research-Important ethical issues of participants.

References

1. Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative Research Methods*. SAGE.
2. Howitt, D. (2019). *Introduction to Qualitative Research Methods in Psychology: Putting Theory into Practice*. Pearson UK.
3. Liamputtong, P. (2019). *Qualitative Research Methods*. Oxford University Press.
4. Lindlof, T. R., & Taylor, B. C. (2017). *Qualitative Communication Research Methods*. SAGE Publications.
5. Taylor, S. J., Bogdan, R., & DeVault, M. (2015). *Introduction to Qualitative Research Methods: A Guidebook and Resource*. John Wiley & Sons.
6. Tracy, S. J. (2019). *Qualitative Research Methods: Collecting Evidence, Crafting Analysis, Communicating Impact*. John Wiley & Sons.

Paper IV: Literature Review and Academic Writing

Unit I: Literature Review

Thinking Critically About Research. Validity or Truth. Changing Beliefs, Attitudes and Behavior. Discovering, Examining and Improving Our Reality. Concept Mapping and Keyword Research. Traditional Reviews and Systematic Reviews (SR)-PRISMA Approach. Systematic Reviews-Cochrane Guidelines for Health Care Research. Some Limits of SR in Social Sciences Synthesising Qualitative Research. Narrative Reviews and Focused Synthesis. Writing Literature Reviews- Outlining. Qualitative Apps for Literature Reviews.

Unit II: Using Academic Sources

Understanding and Using the Library and the Internet. Online Sources for Social Sciences. Literature Sources and Search Strategies. Using Reference Manager Zotero. Literature Categorisation and Tagging using Apps like Qiqqa. Preparing the Working Bibliography. Planning the Research Paper. Note Making. Quoting, Paraphrasing, and Avoiding Plagiarism.

Unit III: Referencing and Citation

Documenting Sources – Parenthetical Documentation. How to Collaborate and Write with Others. The Working Thesis. The Annotated Bibliography. Drafting the Research Paper-Use of Dictionary and Reference Books – Revising –Proof Reading. Citing Research Using MLA or APA Style.

Unit IV: Evaluating Research

The Critique Exercise. The Antithesis Exercise. The Categorization and Evaluation Exercise. Evaluating Quantitative Research. Evaluating Experimental Research. Evaluating Qualitative Research-COREQ (COnsolidated criteria for Reporting Qualitative research) Checklist

Unit V: Presentation of Thesis

Cultivating Intellectual Virtues. Arguing Using Critical Thinking. Argument Mapping-Decision Making - Judging an Argument. Making Claims. Responding to Conflict-Clash. Logical Reasoning. Offering Critique. Building Your Case with Issues, Analysis, Contentions and Evidence. The Research Essay. The Format of the Research Paper and Thesis.

References

1. Efron, S. E., & Ravid, R. (2018). *Writing the Literature Review*. Guilford Publications.
2. Mugambi, A. M. (2020). *A Practical Guide to Academic Writing: A Guide to Research Proposal Writing, Data Collection and Anaysis, and Final Research Report*. Independently Published.
3. Ridley, D. (2012). *The Literature Review: A Step-by-Step Guide for Students*. SAGE.
4. Lampert, L. (2014). *Combating Student Plagiarism: An Academic Librarian's Guide*. Elsevier.
5. Hempel, S. (2019). *Conducting Your Literature Review*. American Psychological Association.
6. Katz, M. J., Kennedy, D., & Kane, T. S. (2015). *From research to manuscript: A guide to scientific writing*
7. Gough, D., Oliver, S., & Thomas, J. (2017). *An Introduction to Systematic Reviews* SAGE.
8. Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (2019). *Cochrane Handbook for Systematic Reviews of Interventions*. John Wiley & Sons.
9. A, R. C. M. (2020). *Academic Writing Survival Guide: What the Purists*
9. Krause, S. D. (2020). *The Process of Research Writing*.

Paper V: Research Ethics and Publication Ethics (RPE)

Unit I: Philosophy and Ethics

Introduction to Philosophy: Definition, Nature and Scope, Concept, Branches. Ethics: Definition, Moral Philosophy, Nature of Moral Judgements and Reactions. Historical Perspectives on Research Ethics-

Unit II: Scientific Conduct

Ethics with Respect to Science and Research. Intellectual Honesty and Research Integrity. Scientific Misconducts: Falsification, Fabrication, And Plagiarism. Redundant Publications: Duplicate and Overlapping Publications, Salami Slicing. Selective Reporting and Misinterpretation of Data. Ethics for Qualitative Field Work. Guidelines for Ethical Practices. Institutional Review Board (IRB).

Unit III: Publication Ethics

Publication Ethics: Definition, Introduction and Importance. Best Practices / Standards Setting Initiatives and Guidelines-Conflicts of Interest. Publication Misconduct: Definition, Concept, Problems That Lead to Unethical Behavior And Vice Versa, Types. Violation of Publication Ethics, Authorship and Contributor Ship. Identification of Publication Misconduct, Complaints and Appeals. Predatory Publishers and Journals

Unit VI: Practice-Open Access Publishing

Open Access Publications and Initiatives. Sherpa/Romeo Online Resource to Check Publisher Copyright & Self-Archiving Policies. Software Tool to Identify Predatory Publications Developed By SPPU. Journal Finder / Journal Suggestion Tools Viz. Jane, Elsevier Journal Finder, Springer Journal Suggester, Etc.

Unit V: Publication Misconduct

Themes- Subject Specific Ethical Issues, FFP, Authorship. Conflicts of Interest- Complaints and Appeals: Examples and Fraud from India And Abroad. Software Tool- Use of Plagiarism Software Like Turnitin, Urkund And Other Open Source Software Tools. Databases and Research Metric-Databases- Indexing Databases, Citation Databases: Web of Science, Scopus, Etc. Research Metrics-Impact Factor of Journal as Per Journal Citation Report, Snip, SIR, IPP, Cite Score. Metrics: H-Index, G Index, IIO Index, Altmetrics.

References

1. Bird, A. (2006). *Philosophy of Science*. Routledge.
2. MacIntyre, Alasdair (1967) *A Short History of Ethics*. London.
3. P. Chaddah, (2018) *Ethics in Competitive Research: Do Not Get Scooped; Do Not Get Plagiarized*, ISBN:978- 9387480865
4. National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). *On Being A Scientist: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.
5. Resnik, D. B. (2011). *What Is Ethics in Research & Why Is It Important*. National Institute of Environmental Health Sciences, 1-10. Retrieved from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm> Beall, J. (2012). *Predatory Publishers Are Corrupting Open Access*. *Nature*, 489(7415), 179-179. <https://doi.org/10.1038/489179A>
6. Indian National Science Academy (Insa), *Ethics In Science Education, Research And Governance* (2019), ISBN:978-81 -939482-1 -7. http://www.insaindia.res.in/pdf/ethics_book.pdf