K.S.K.V. KACHCHH UNIVERSITY, BHUJ
Ph.D. ENTRANCE TEST –2023

SYLLABUS
PART – 1 (RESEARCH METHODOLOGY) (50 %)

1. Research Methodology: An Introduction

Meaning of Research, Objectives of Research, Motivation in Research, Types of Research, Research Approaches, Significance of Research, Research Methods versus Methodology, Research and Scientific Method, Importance of Knowing How Research is Done, Research Process, Criteria of Good Research.

2. Defining the Research Problem

What is a Research Problem?, Selecting the Problem, Necessity of Defining the Problem, Technique Involved in Defining a Problem.

3. Research Design

Meaning of Research Design, Need for Research Design, Features of a Good Design, Important Concepts Relating to Research Design, Different Research Designs, Basic Principles of Experimental Designs.

4. Sampling Design

Census and Sample Survey, Implications of a Sample Design, Steps in Sampling Design, Criteria of Selecting a Sampling Procedure, Characteristics of a Good Sample Design, Different Types of Sample Designs, How to Select a Random Sample? , Random Sample from an Infinite Universe, Complex Random Sampling Designs.

5. Measurement and Scaling Techniques

Measurement in Research, Measurement Scales, Sources of Error in Measurement, Tests of Sound Measurement, Technique of Developing Measurement Tools Scaling, Meaning of Scaling, Scale Classification Bases, Important Scaling Techniques, Scale Construction Techniques.

6. Methods of Data Collection

Collection of Primary Data, Observation Method, Interview Method, Collection of Data through Questionnaires, Collection of Data through Schedules, Difference between Questionnaires and Schedules, Some Other Methods of Data Collection of Secondary Data.

7. Processing and Analysis of Data

Processing Operations, Some Problems in Processing, Elements/Types of Analysis, Statistics in Research, Measures of Central Tendency, Measures of Dispersion, Measures of Asymmetry (Skewness), Measures of Relationship, Simple Regression

Analysis, Multiple Correlation and Regression, Partial Correlation Association in Case of Attributes, Other Measures.

8. Biostatistics in research:

Methods of statistics: Normal distribution, Null- hypothesis, ANOVA, t-test, Chi square test, and other parametric and non- parametric tests, various statistical softwares in research.

9. Interpretation and Report Writing:

Meaning of Interpretation, Why Interpretation?, Technique of Interpretation, Precaution in Interpretation, Significance of Report Writing, Different Steps in Writing Report, Layout of the Research Report, Types of Reports, Oral Presentation, Mechanics of Writing a Research Report, Precautions for Writing Research Reports. Special focus on different parts of the Research paper such as Title (Title of project with authors name etc), Abstract- Statement of the problem, Background list in brief and purpose and scope, Key words, Methodology-subject, apparatus, instrumentation & procedure, Results- tables, graphs, figures & Statistical presentation, Discussion- support or non-support of hypothesis, practical & theoretical Implications, Conclusion, Acknowledgements, References, Errata, Importance of Spell check for entire project/paper, Uses of footnotes, Conflict of interest, Peer review, responsible authorship, ethics in publication.

10. The Computer: Its Role in Research:

The Computer and Computer Technology, software and hardware, The Computer System, Important Characteristics, The Binary Number System, Computer Applications, Computers and Researcher. input- output devices, Spreadsheet Tool: Analysis of Data and storing, Generating charts/ graph and other features. Presentation Tool: Introduction to presentation tool, features and functions, Creating presentation, Customizing presentation. Word processing software: Tools used may be Open Office or similar tool. Web Search: Introduction to Internet, Use of Internet, Database search and retrieval of data.

11. UGC regulations and Research grants:

Latest regulations for PhD and research activities by UGC, Sources for getting research grants– international agencies, Government and private bodies, points to remember while applying for the grants.

PART – 2 CORE SUBJECTIVE/ SUBJECT SPECIFIC (50%)
(SYLLABUS WILL BE AS PER NET/GSET)