Vanita Vishram Women's University
Managed by: Vanita Vishram, Surat
(Approved by the Government of Gujarat under the Provisions of the Gujarat Private Universities Act, 2009)

Subject: RESEARCH METHODOLOGY

The main objective is to assess the research capabilities of the candidates. The test aims at assessing the research aptitude as well. Candidates are expected to possess and exhibit cognitive abilities, which include comprehension, analysis, evaluation, understanding the structure of arguments, deductive and inductive reasoning. The candidates are also expected to have a general awareness about reserach in higher education system. Further, they should be aware of the interaction between people, environment, natural resources and their impact on the quality of life. The details of syllabi are as follows:

Unit-I	**Research Aptitude**
	- Research: Meaning, Types, and Characteristics, Positivism and Post-positivistic approach to research. - Methods of Research: Experimental, Descriptive, Historical, Qualitative and Quantitative methods. - Steps of Research. - Thesis and Article writing: Format and styles of referencing. - Application of ICT in research. - Research ethics.
Unit-II	**Comprehension**
	A passage of text be given. Questions be asked from the passage to be answered.
Unit-III	**Communication**
	- Communication: Meaning, types and characteristics of communication. - Effective communication: Verbal and Non-verbal, Inter-Cultural and group communications, Classroom communication. - Barriers to effective communication. - Mass-Media and Society.

Unit-IV	**Mathematical Reasoning and Aptitude**
	- Types of reasoning. - Number series, Letter series, Codes and Relationships. - Mathematical Aptitude (Fraction, Time & Distance, Ratio, Proportion and Percentage, Profit and Loss, Interest and Discounting, Averages etc.).
Unit-V	**Logical Reasoning**
	- Understanding the structure of arguments: argument forms, the structure of categorical propositions, Mood and Figure, Formal and Informal fallacies, Uses of language, Connotations and denotations of terms and Classical square of opposition. - Evaluating and distinguishing deductive and inductive reasoning. - Analogies. - Venn diagram: Simple and multiple use for establishing validity of arguments. - Indian Logic: Means of knowledge. - Pramanas: Pratyaksha (Perception), Anumana (Inference), Upamana (Comparison), Shabda (Verbal testimony), Arthapatti (Implication) and Anupalabddhi (Non-apprehension). - Structure and kinds of Anumana (inference), Vyapti (invariable relation), Hetvabhasas (fallacies of inference).
Unit-VI	**Data Interpretation**
	- Sources, acquisition and classification of Data. - Quantitative and Qualitative Data. - Graphical representation (Bar-chart, Histograms, Pie-chart, Table-chart and Line-chart) and mapping of Data. - Data Interpretation. - Data and Governance.
Unit-VII	**Information and Communication Technology (ICT)**
	- ICT: General abbreviations and terminology. - Basics of Internet, Intranet, E-mail, Audio and Video-conferencing. - Digital initiatives in higher education. - ICT and Governance.