SRI Y.N.COLLEGE(Autonomous),Narsapur
Affiliated to Aadikavi Nannaya University
Accredited by NAAC with 'A' Grade with a CGPA of 3.40
Recognized by UGC as 'College with potential for Excellence'
II B.Sc MSCS - Statistics Certificate Course
Research Methodology (w.e.f.2017-18)

Unit - I

Research and Types of research: Meaning of Research- Objectives of Research- Motivation in Research. Research methods vs Methodology. Types of research – Descriptive vs. Analytical, Applied vs. Fundamental, Quantitative vs. Qualitative, Conceptual vs. Empirical. Research Process.

Unit – II

Research Formulation – Defining and formulating the research problem - Selecting the problem - Necessity of defining the problem - Importance of literature review in defining a problem – Literature review – Primary and secondary sources – reviews, treatise, monographs-patents – web as a source – searching the web - Critical literature review – Identifying gap areas from literature review - Development of working hypothesis

Unit – III

Data Collection and analysis: Execution of the research - Observation and Collection of data - Methods of data collection – Modeling, Mathematical Models for research, Sampling Methods- Data processing and Analysis strategies. Data Analysis with Statistical Packages – Hypothesis-testing, Generalization-and Interpretation. Multivariate analysis.

Reference Books:

1. Garg, B.L., Karadia, R., Agarwal, F. and Agarwal, U.K., 2002. An introduction to Research Methodology, RBSA Publishers.

2. Kothari, C.R., 1990. Research Methodology: Methods and Techniques. New Age International. 418p.

3. Sinha, S.C. and Dhiman, A.K., 2002. Research Methodology, Ess Ess Publications. 2 volumes.

4. Trochim, W.M.K., 2005. Research Methods: the concise knowledge base, Atomic Dog Publishing. 270p.

5. Wadehra, B.L. 2000. Law relating to patents, trade marks, copyright designs and geographical indications. Universal Law Publishing.

SRI Y.N.COLLEGE(Autonomous),Narsapur
Affiliated to Aadikavi Nannaya University
Accredited by NAAC with 'A' Grade with a CGPA of 3.40
Recognized by UGC as 'College with potential for Excellence'
II B.Sc MSCS - Statistics Certificate Course
Research Methodology Model Paper (w.e.f.2017-18)

Time: 2Hrs   Total Marks: 50M

SECTION-I

Answer any **THREE** of the following questions   3 x 10 = 30M

1. Define research. Write down the objectives and features of good research.
2. Explain the how to formulate the research problem.
3. Define sampling and explain about the various sampling methods.
4. In winter season, a study has been made for 10 days to see whether the distribution of daily reservation is uniform or not, and the results are tabulated hereunder. Find whether the distribution is uniform or not. Distribution of actual numbers of reservation.

S no	1	2	3	4	5	6	7	8	9	10
No of reservations	65	80	100	98	75	80	82	70	60	90

5. What is the important decision making techniques in multivariate analysis explain?

SECTION-II

Answer any **FOUR** of the following questions   4 x 5 = 20M

6. Explain about the random numbers tables.
7. Explain about the questionnaire and schedule.
8. Explain about the research design.
9. Explain about the regression analysis.
10. Explain the limitations of sampling.
11. Explain about the classification of data