(Applicable to the batch of students admitted in the academic year 2016-17 and onwards)

M.Com. (CBCS)   FACULTY OF COMMERCE, OU

SEMESTER–III
RESEARCH METHODOLOGY AND STATISTICAL ANALYSIS

PAPER CODE: COM 11: Core-I   Total Marks: 80+15+05=100
THPW: 5; Credits: 5   ESED: 3 HRS

OBJECTIVE: *Objective of this course is to develop research orientation among the students and develop analytical skills.*

UNIT-I: INTRODUCTION:
Quantitative Techniques: Meaning, Need and Importance - Classification: Statistical Techniques - Operations Research techniques - Role of Quantitative Techniques in Business and Industry - Quantitative Techniques in Decision making - Limitations.
Research: Meaning, Purpose, Characteristics and Types - Process of Research: Formulation of objectives - Formulation of Hypotheses: Types of Hypotheses - Methods of testing Hypotheses - Research plan and its components - Methods of Research: Survey, Observation, Case study, experimental, historical and comparative methods - Difficulties in Business research.

UNIT-II: COLLECTION, PRESENTATION & ANALYSIS OF DATA:
Sources of Data: Primary and Secondary Sources - Methods of collecting Primary Data - Designing Questionnaires/Schedules in functional areas like Marketing, Finance, Industrial Economics, Organizational Behavioral and Entrepreneurship (Practically students should be able to design questionnaires for given problem/cases in these areas). Census vs. Sampling - Methods of Sampling Random and Non-Random Sampling methods - Measurement and scaling techniques.
Processing and Presentation of Data: Editing, coding, classification, and tabulation - Graphic and diagrammatic presentation (Theory only). Statistical analysis of Data: Types of analysis (Descriptive analysis and inferential analysis) – Tools: Measures of Central Tendency, Measures of Variation, Skewness, Time series, Index numbers, Correlation and Regression (theory only).

UNIT-III: INTERPRETATION AND REPORT WRITING:
Interpretation: Introduction - Essentials for Interpretation, Precautions in interpretation - Conclusions and generalization - Methods of generalization. Statistical fallacies: bias, inconsistency in definitions, inappropriate comparisons, faulty generalizations, drawing wrong inferences, misuse of statistical tools, failure to comprehend the data. (including small cases). **Report Writing:** Meaning and types of reports - Stages in preparation of Report - Characteristics of a good report - Structure of the report'-Documentation: Footnotes and Bibliography - Checklist for the report.

UNIT-IV: PROBABILITY AND PROBABILITY DISTRIBUTIONS:
Probability: Meaning - Fundamental Concepts - Approaches to measurement of Probability -Classical, Relative frequency, subjective and axiomatic approaches - Addition theorem - Multiplication theorems-Bayesian theorem and its simple applications - Mathematical expectation (including problems).
Probability Distributions: Meaning and importance of theoretical frequency distributions Binomial, Poisson and Normal distributions - Properties and uses - fitting Binomial, Poisson and Normal, Distributions (areas method only) (including problems).

UNIT-V: ASSOCIATION OF ATTRIBUTES & CHI SQUARE TEST:
Association of Attributes: Meaning - Distinction between correlation and association Methods of studying Association - interpretation of results. **Chi Square Test:** Definition - Conditions for applying Chi square test, Yates's correction - Uses and limitations of Chi square test - Chi square test for testing the independence of Attributes - Chi square test for goodness of fit (including problems).

SUGGESTED READINGS:
1.Krishna Swamy:Methodology of Research in Social Sciences.,2.Kothari:Research Methodology., 3.Zikmund:Business Research Methods.,4. SC.Gupta:Fundamentals of Statistics., 5. SP.Gupta:Statistical Methods., 6. Levin et al:Statistics for Management., 7. Keller:Statistics for Management & Economics., 8. Sanchetty & Kapoor: Business Statistics., 9. Achalapathi KV:Reading in Research Methodology in Commerce & Business Management.,10. Anderson:Statistics for Business and Economics.

SEMESTER–IV

QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

PAPER CODE: COM 16: Core-I   Total Marks: 80+15+05=100
THPW: 5 ; Credits: 4   ESED: 3 HRS

OBJECTIVE: to impart inferential skills to the student by using Quantitative Techniques for Business Decisions.

UNIT-I: STATISTICAL ESTIMATION AND HYPOTHESIS TESTING:
Concepts: Population, sample and sampling distribution - Parameters and statistics - Central limit theorem - Concept of Standard Error - Confidential limits - Estimation of population parameters - Properties of a good estimator - Point and interval estimation - Hypothesis Formulation and testing procedure - Type I and Type II errors - One tail and two tail tests (theory only).
Sampling of Attributes: Estimation and testing of Number and Proportions of Successes - Difference between two proportions (including problems).

UNIT-II: SAMPLING OF VARIABLES:
Large Samples: Difference between large and small samples - Estimating population mean – Testing: Significance of Mean - Significance of the difference between means of two samples - Significance of the difference between the standard deviations of two samples (including problems).
Small Samples: 't' test - Fixing fiducial limits to population mean – Testing: Significance of the mean - Significance of the difference between two independent means - Significance of the difference between two dependent means (including problems).

UNIT-III: ANALYSIS OF VARIANCE AND STATISTICAL QUALITY CONTROL:
F- test: Meaning and Applications – ANOVA: Assumptions - Procedure - One way and two-way analysis of variance (including problems).; **Statistical Quality Control:** Introduction - Chance and Assignable Causes of Variation Uses of SQC - Process Control and Product Control- Control Charts for Variables:$\overline{X}$ - chart - Range chart - Standard deviation chart - Control charts for attributes: C chart - p chart - np chart.

UNIT-IV: STATISTICAL DECISION THEORY AND GAMES THEORY:
Statistical Decision Theory: Nature of Decision - State of Nature – Pay off Tables - Expected Pay off - Expected Opportunity Loss – Value of Perfect Information – Types of Decision Situation – Choice of Decision Criteria – Decision Tree Analysis – Decision Making under Uncertainties (including simple problems).; **Games Theory**: Characteristics of Game Theory – Two Persons Zero Sum Game - Maximum and Minimax Strategies – Saddle Point – Dominating Strategy – Mixed Strategy - Limitations of Games Theory (including simple problems with Analytical Formulae and Graphical Methods).

UNIT-V: LINEAR PROGRAMMING (LP): Linear Programming: Meaning - Requirements for application - Assumptions - Advantages - Application of LP - Formulation of LP problems (including simple problems). **Graphical Solutions** of LP problems with two variables only (including simple problems).

SUGGESTED READINGS:
1.Levin&Rubin: Quantitative Approaches in Management, Pearson
2.SC.Gupta: Fundamentals of Statistics, Himalaya
3.Anderson: Quantitative Methods for Business Decision, 8e Thomson
4.Barry Render et al: Quantitative Analysis for Management, PHI
5.Anderson: Introduction to Management Science: Quantitative Techniques for Decision Making, Thomson
6.G.Gopikuttan: Quantitative Methods and Operational Research, Himalaya
7.D.C.Sancheti & VK.Kapoor: Statistics, Sultan Chand & Sons
8.Anand Sharma: Quantitative Techniques for Decision Making Himalaya
9.Mendenhall: Introduction to Probability & Statistics, Thomson
10. Shenoy GV: Quantitative Techniques for Managerial Decisions, New Age
11. Gupta and Khanna: Quantitative Techniques for Decision Making, PHI.

ఎం.ఏ., తెలుగు ద్వితీయ సంవత్సరం
సెమిస్టర్ – 3. పేపర్ – 4 (ఎ)
304 (ఎ). తెలుగు పరిశోధన

1. పరిశోధన – నిర్వచనం, విమర్శ(కుల పరిశోధ(కుల)నల లక్షణాలు, ప్రయోజనం – పరిశోధన పద్ధతులు
    పరిశోధనాంశ నిర్ణయం – విస్తృతాంశ, సూక్ష్మాంశ పరిశోధనలు – సాధక బాధకాలు

2. గ్రంథ పరిష్కరణం – పాఠాంతరాలు – సమస్యలు – జాగ్రత్తలు.
    సి.పి.బ్రౌన్, మానవల్లి రామకృష్ణకవి, వేటూరి ప్రభాకర శాస్త్రి, కొమర్రాజు వెంకట లక్ష్మణరావు, ఖండవల్లి లక్ష్మీరంజనం..
    ... పరిశోధన రంగంలో చేసిన కృషి

3. తెలంగాణలో పరిశోధన వికాసం, విశ్వవిద్యాలయాల్లో పరిశోధన వికాసం.

4. పరిశోధన గ్రంథ నిర్మాణం – ప్రణాళిక, అధ్యాయ విభజన, ఉల్లేఖనలు, ఉపయుక్త గ్రంథ సూచి, శైలీ విన్యాసం

ఆధార గ్రంథాలు

1. తెలుగు పరిశోధన (ఆం.ప్ర. సాహిత్య అకాడమీ రజతోత్సవ సంచిక)   జి.వి. సుబ్రహ్మణ్యం (సం.)
2. విశ్వవిద్యాలయాల్లో తెలుగు పరిశోధన   వెలుదండ నిత్యానందరావు
3. గ్రంథ పరిష్కరణ పద్ధతులు   చిత్రాతి గోవిందరాజు (సం.)
4. భారతీయ గ్రంథ పరిష్కరణ ప్రవేశిక   బూదాతి వేంకటేశ్వర్లు
5. తెలుగులో తొలితరం పరిశోధకులు   పరిష్ రామనరసింహం (సం.)
6. పరిశోధన పద్ధతులు   గంధం అప్పారావు
7. పరిశోధన   పులికొండ సుబ్బాచారి
8. సాహిత్య వీథి   శ్రీరంగాచార్య
9. తెలుగు పరిశోధన వ్యాసమంజరి 1,2 సంపుటాలు   వెలుదండ నిత్యానందరావు (సం.)
10. పరిశోధన విధానం   ఎస్. జయప్రకాశ్
11. తెలుగు సాహిత్యము – పరిశోధన   ఎం. కులశేఖర రావు.

Semester - III
Core Paper
Paper - II: Research Methodology

UNIT – I: Research, experimental and sampling design   15 Hrs

1.1. Research – basic and applied research, essential steps in research.
1.2. Research – definition, importance and application.
1.3. General methods in biological research – natural observation, field study, and experimentations.
1.4. Experimental design – basic principles, hypothesis, one & two group experimental design. matched pair data analysis, factoral design, randomized block design.
1.5. Sampling method - Concept of population, random sampling and non random sampling, variables – random, independent and intervening variables.

UNIT – II: Collection, analysis and interpretation of data.   15 Hrs

2.1 Data collections: methods for primary data- observation, interview, questionnaire methods, and experiments.
2.2 Methods for secondary data – scientific journals, books, reports, databases.
2.3 Representation of data – tabular representations of quantitative data, frequency table – one way and two way.
2.4 Graphical representation of quanlitative data – line graph, histogram, frequency polygon, frequency curve, Ogive, bar diagrams and pie diagrams.
2.5 Analysis of data – Tools of statistics and software applications.

UNIT – III: Use of inferential statistical tools in research   15 Hrs

3.1 Use of different statistical estimations depending on the type of data, hypothesis testing, and test of significance.
3.2 Student's 't' test – applications and importance in research data.
3.3 Application of Chi-square test for the experimental data.
3.4 Use of ANOVA – (one-way and two-way ANOVA) for the research data analysis.
3.5 Application of correlation and regression analysis for the data.

UNIT – IV: Reporting research   15 Hrs

4.1 Literature collection – Need, review process, consulting source material, literature citation; Components of research report – Text, tables, figures, bibliography.
4.2 Writing of dissertations, project proposals, project reports, research papers.
4.3 Intellectual Property Rights – Biopiracy, copyrights, patent and traditional knowledge and plagiarism.
4.4 Laboratory safety – Biohazardous agents, biosafety levels, lab acquired infections, other hazards; Laboratory good practices.
4.5 Animal model systems; animal ethics- animal welfare guidelines for care and use of animals.

| Mahesh Dattani | "Final Solutions" |
| Manjula Padmanabhan | *Harvest* |

Suggested Reading

Gopal, Priyamvada. *The Indian English Novel: Nation, History and Narration*. New Delhi: OUP, 2009.

Guha, Sumit. *Beyond Caste: Identity and Power in South Asia, Past and Present*. Leiden: Brill, 2013.

Guru, Gopal and Sundar Sarukkai. *The Cracked Mirror: An Indian Debate on Experience and Theory*. New Delhi: Oxford UP, 2012.

Joshi, Priya. *In Another Country: Colonialism, Culture, and the English Novel in India*. 2002. New Delhi: OUP, 2003.

Khair, Tabish. *Babu Fictions: Alienation in Contemporary Indian English Novels*. New Delhi: OUP, 2001.

King, Bruce. *Three Indian Poets: Nissim Ezekiel, A.K. Ramanujan, Dom Moraes*. New Delhi: OUP, 1991.

---. *Modern Indian Poetry in English*. Rev ed. New Delhi: OUP, 2001.

Mehrotra, Arvind Krishna. *An Illustrated History of Indian Literature in English*. Delhi: Permanent Black, 2003.

Mukherjee, Meenakshi. *The Perishable Empire: Essays on Indian Writing in English*. New Delhi: OUP, 2000.

Naik, MK and Shankar Mokashi-Punekar, eds. *Perspectives on Indian Drama in English*. New Delhi: OUP, 1977.

Paranjape, Makarand. *In-Diaspora: Theories, Histories, Texts*. New Delhi: Indialog, 2001.

Prasad, GJV. *Continuities in Indian English Poetry: Nation, Language, Form*. New Delhi: Pencraft, 1999.

Omvedt, Gail. *Understanding Caste: From Buddha to Ambedkar and Beyond*. New Delhi: Orient Blackswan, 2011.

Paper IV   ENG 404 A   Academic Writing and Research Methodology   (4 Credits)

Unit I

a) Factors Influencing Effective Writing : Mechanics of Writing, Purpose of writing, Audience/reader, Organisation- Cohesion and Coherence

b) Features of Academic Writing : Introduction, Complexity, Formality, Precision, Objectivity, Explicitness, Accuracy and Appropriacy, Relevance, Hedging

c) Academic Writing Forms: Paragraph Development, Précis Writing, Building Argument, Making Counter Argument, Managing tone and tenor

Unit II

a) Study Skills and Academic Skills: Note Taking, Note Making, Information Transfer and Reference Skills, Paraphrasing (Change of parts of speech, word order, synonyms, using passive form), Summarizing (Steps in summarising)

b) Essay and Report Writing: Descriptive Writing, Narrative Writing; General Reports, Feasibility reports, Progress reports, Evaluation reports, Writing for Media

c) Writing Book Reviews and Film Reviews

Unit III

a) Criteria of Good Research; Avoiding Plagiarism

b) Types of Research: Primary and Secondary Research; Research Design: Statement of the Problem, Survey of relevant literature, Making hypotheses, developing objectives; Research Tools

c) Analysis and Data Interpretation (Collecting the data, analysing and interpreting the data, testing the hypotheses)

Unit IV

a) Preparing an outline for Research Articles and Thesis

b) Documentation Format: APA style

c) Documentation Format: MLA style

Suggested Reading

Gillett, A., Hammond, A., & Martala, M. (2009). *Inside track: Successful academic writing*. Essex: Pearson Education Limited.

Griffin, G. (2006). *Research methods for English studies*. Edinburgh: Edinburgh University Press.

Gupta, R. (2010). *A course in academic writing*. New Delhi: Orient BlackSwan.

IV. సాహిత్య ప్రక్రియల పరిచయం

1. నాటకం

2. నవల

3. కథానిక

4. జీవిత చరిత్ర

5. ఉపన్యాసకళ

V. జర్నలిజంలో మౌలికాంశాలు

6. వార్త – నిర్వచనం, లక్షణాలు

7. వార్త నిర్మాణం

8. వార్తా కథనాలు

9. అనువాదం

10. ఇంటర్వ్యూలు

VI. ప్రాజెక్టు పరిచయం

26. ప్రాజెక్టు

27. అధ్యయనం

28. పరికల్పన

29. నివేదిక

సంప్రదింపు గ్రంథాలు