Pre PhD (Management)/URS

Scheme of Examinations

Paper	Name of paper	Written Examination	Workshop of published work	Assignments	Total
I	Research Methodology	50	50	-	100
II	Quantitative Techniques and Computer Applications	50	50	-	100
III	Literature Review	-	50	50	100

1) Written examinations in the paper (I) Research Methodology & (II) Quantitative Techniques & Computer Applications of 50 marks each shall be held at the end of the course. The question paper in each subject shall be set by the outside examiner(s) to be appointed by the Chairman, P.G.B.O.S.

2) Two workshops will be conducted in each of the paper (I) Research Methodology & (II) Quantitative Techniques & Computer Applications above in which performance of the students will be evaluated out of 50 marks each by a panel of two examiners to be appointed by the Chairman PGBOS.

3) In paper (iii) Review of Published Research in Relevant Area of Management, 50 marks are allotted to presentations on the review of published research work in the relevant area of management.
   For the remaining 50 marks in each paper, the candidates shall be assessed on the basis of assignments to be given by the concerned teachers.
   The evaluation of the two components will be done by the concerned teacher.

4) Each students in the Pre Ph.D. course shall be assigned to a teacher on the basis of specialization/interest area and teacher's consent.

5) The qualifying marks in the each paper of the course shall be 50%.

Research Methodology
Paper-I

Max. Marks: 50
Workshop: 50
Time: 3Hours

Unit – I

Meaning, types and significance of research in business; characteristics of good research; identification and formulation of research problems; setting research objectives; hypothesis: meaning, types, need and formulation; importance and format of review of literature.

Unit – II

Business research design: exploratory, descriptive & causal studies; population & sample; sample size; meaning and types of sampling; sampling error; the research proposal.

Unit – III

Measurement & scaling techniques: nominal scale, ordinal scale, interval scale, rating scale; criteria for good measurement; attitude measurement—Likert's scale, Semantic Differential scale, Thurstone-equal appearing interval scale, Multi Dimensional scaling; meaning and types of data; data collection methods – observation, survey and interview; questionnaire design; reliability and validity of questionnaire.

Unit – IV

Editing, coding, classification and tabulation of data; methods of data presentation; interpretation of results; report writing—purpose, steps and format of research report; final presentation of the research report; idea of referencing, bibliography, footnotes and end notes.

Note: The external examiner shall set a total eight questions covering the entire syllabus. The candidate shall be required to attempt any five questions selecting atleast one question from each unit.

Suggested Readings:

1. Donald Cooper and Pamela Schindler, *Business Research Methods*, Tata McGraw Hill.

2. Gilbert A. Churchill and Dawn Lacobucci, *Marketing Research: Methodological Foundations*, South Western Educational Publishing.

3. McBurney and Donald H, *Research Methods*, Wadsworth Publishing.

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Quantitative Techniques and Computer Applications
Paper-II

Max. Marks: 50
Workshop : 50
Time: 3Hours

Unit-I

Hypothesis testing; parametric tests: T-test, Z-test and F-test; non-parametric tests: Run test, Median test, Sign-test, Wilcoxon matched pairs-test, Mann-Whitney U-test, Kruskal-Wallis-test, Friedman-test and Wald-Wolfwitz number of run test.

Unit-II

Types of statistical analysis: bivariate analysis (Chi-square only) and multivariate analysis—factor analysis, discriminant analysis, cluster analysis, MANOVA, structural equation modelling, and conjoint analysis.

Unit-III

Regression analysis—assumptions of classical normal linear regression model (CNLRM); simple and multiple regression analysis; dummy variable regression models; violations of assumptions of CNLRM—consequences, detection and remedial measures; basic concepts of time series analysis: stationarity, unit roots, cointegration, standard Granger causality and error correction model.

Unit-IV

Applications of SPSS for data entry, editing, transformation and cleaning; applications of E-Views, Microfit, Probit, Rats, Lisrel and Stata for managerial analysis.

Note: The external examiner shall set a total eight questions covering the entire syllabus. The candidate shall be required to attempt any five questions selecting atleast one question from each unit.

Suggested Readings:

1. Donald Cooper and Pamela Schindler, Business *Research Methods*, Tata McGraw Hill.

2. Gujarati D N and Sangeetha, *Basic Econometrics*, Tata McGraw Hill.

3. Hair, Black, Babin, Anderson and Tatham, *Multivariate Data Analysis*, Pearson.

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Literature Review
Paper-III

Each scholar will be required to give a presentation to a Board of Examiners nominated by Director, IMSAR on the recommendations of P.G. Board of Studies, on an area of contemporary issues in management allotted to him/her by the institute. The scholar will be required to study the relevant literature on the allotted topic/area and prepare a comprehensive preentation a copy which will be submitted to the institute atleast one week before the schedule date of presentation. The scholar will be evauated on the basis of oral presentation (25 marks) as well as written assignment (25 marks)