CONTENTS

PREFACE *page*

1 PROBABILITY MODELS

1.1 Introduction
1.2 Pairwise comparisons of three objects
1.3 Basic models
1.4 Extensions to multiple-choice situations
1.5 Historical note on the method of paired comparisons
Exercises

2 COMBINATORIAL METHODS

2.1 Scores and circular triads
2.2 Other measures of inconsistency
2.3 Basic distribution theory
2.4 Distribution of the scores and of related functions
2.5 Distribution theory in the non-null case
2.6 A multivariate generalization
Exercises

3 NONPARAMETRIC TESTS OF SIGNIFICANCE

3.1 Introductory
3.2 Test of one particular object
3.3 Test of equality of two particular objects
3.4 Test of the top score
3.5 Overall test of equality
3.6 Least significant difference method
3.7 Multiple comparison range test
3.8 A method for judging contrasts of scores
3.9 Example
Exercises

4 THE LINEAR MODEL

4.1 A general approach
4.2 The angular transformation

4.3 The Bradley–Terry model—estimation
4.4 The Bradley–Terry model—tests of hypotheses
4.5 Tests of the model
4.6 Incomplete contingency table approaches
4.7 Multivariate paired comparisons
4.8 Bock's three-component model
Exercises

5 DESIGNS

5.1 Completely balanced designs
5.2 Incomplete designs
5.3 Cyclic designs
5.4 Partially balanced incomplete block designs
5.5 Linked paired-comparison designs
Exercises

6 SELECTION AND RANKING

6.1 Ranking from Round Robin tournaments
6.2 Appropriate size of experiment
6.3 Selection of a subset containing the best object
6.4 Knock-out and other tournaments
Exercises

7 A MISCELLANY

7.1 Selection of judges
7.2 Consumer tests
7.3 Treatment of ties
7.4 Within-pair order effects
7.5 Scheffé's procedure
7.6 Optimal scaling
7.7 Paradoxes
Exercises

REFERENCES

APPENDIX TABLES

INDEX