

CONTENTS

PREFACE	v
Chapter 1. GROUP THEORY	1
1.0. Introduction	1
1.1. Definitions and Properties of Groups	6
1.2. Homomorphism, Isomorphism, Direct Product etc.	8
REFERENCES	11
Chapter 2. INVARIANCE	13
2.0. Introduction	13
2.1. Invariance of Distributions	13
2.2. Invariance of Testing Problems	23
2.3. Invariance of Statistical Tests and Maximal Invariant	24
2.4. Some Examples of Maximal Invariants	26
2.5. Distribution of Maximal Invariant	30
2.6. Applications	33
2.7. The Distribution of a Maximal Invariant in the General Case	36
2.8. An Important Multivariate Distribution	37
2.9. Almost Invariance, Sufficiency and Invariance	45
REFERENCES	47
Chapter 3. SOME INVARIANT TESTS OF MULTIVARIATE NORMAL DISTRIBUTIONS	48
3.0. Introduction	48
3.1. Problems of Mean Vector	48
3.2. The Classification Problem	54
3.3. Test Based on Multiple Correlation Coefficient	62
REFERENCES	65

Chapter 4. MINIMAX TESTS AND INVARIANCE	67
4.0. Introduction	67
4.1. Locally Minimax Tests	70
4.2. Asymptotically Minimax Tests	85
4 3. Minimax Tests	92
REFERENCES	102
INDEX	103