

Contents

Preface	7
1. <u>Methodology of Bayesian Analysis</u>	11
1.1 Bayesian Statistics and Statistical Inference	11
1.2 A Quality Control Problem	24
1.3 Discussion	37
Suggested Readings	40
2. <u>Review of Concepts and Theories of Probability</u>	42
2.1 Introduction	42
2.2 The Classical View	43
2.3 Frequencies	44
2.4 Inductive Probability	50
2.5 Personal Probabilities	57
2.6 Subjective Probability and Betting	75
2.7 Subjective Probability and Bayes Theorem	79
2.8 Some General Conclusions	81
Suggested Readings	83
3. <u>Decision under Uncertainty</u>	85
3.1 Introduction	85
3.2 Equally - Probable Outcomes	86
3.3 Scaling of Subjective Probabilities for Events	87
3.4 Scaling of Preferences for Consequences: Utilities	89
3.5 Principles of Coherent Choice	90
3.6 Discussion	95
3.7 Comments on Utility and Examples	98
3.8 Problems	106
Suggested Readings	111
Bibliographical Remarks	112