CONTENTS

Synopsis i - xiv

Chapter - I Radiative Effects Due to Natural Convection Between Heated Inclined Plates with Magnetic Field

1.1 Introduction 1-5
1.2 Formulation of the Problem 5-8
1.3 Solution of the Problem 8-12
1.4 Deduction 12
1.4.1 Flow between perpendicular parallel plates 12-15 (i.e. \( \psi = \frac{\pi}{2} \))
1.4.2 Non Magnetic Case (i.e. \( M \rightarrow 0 \)) 16
1.4.3 Flow between perpendicular parallel plates 16 (i.e. \( \psi = \frac{\pi}{2} \))
1.5 Result and Discussion 17-28
1.6 Conclusion 29
References 30-32

Chapter - II Unsteady Hydromagnetic Free Convection Flow of a Dissipative and Radiating Fluid past a Vertical Plate through Porous Medium with Constant heat Flux

2.1 Introduction 33-36
2.2 Mathematical Formulation 36-38
2.3 Solution of the Problem 38-42
2.4 Result and Discussion 42-50
2.5 Conclusion 51
References 52-53
Appendix 54
Chapter – III Heat and Mass Transfer Effects on MHD Boundary Layer Flow over a Moving Vertical Porous Plate

3.1 Introduction 55-58
3.2 Formulation of the Problem 59-61
3.3 Numerical Procedure 62
3.4 Solution of the Problem 63-64
3.5 Results and Discussion 64-76
3.6 Conclusion 77
References 78-80

Chapter – IV Mass Transfer Effects on Radiative MHD Flow over a non-Isothermal Stretching Sheet Embedded in a Porous Medium

4.1 Introduction 81-85
4.2 Formulation of the Problem 85-88
4.3 Solution of the Problem 88-89
4.4 Results and Discussion 89-100
4.5 Conclusion 101
References 102-104

Chapter – V MHD Convective Heat and Mass Transfer Flow over a Permeable Stretching Surface with Suction and Internal Heat Generation/ Absorption

5.1 Introduction 105-109
5.2 Formulation of the Problem 109-112
5.3 Solution of the Problem 113
5.4 Results and Discussion 113-124
5.5 Conclusion 125
References 126-128

I List of Publications