CONTENTS

Section

Title

page

CHAPTER-I

Brief Survey of the developments in the solution of Navier-Stoke's Equations

1		Fundamental Equations of the flow of Viscous fluid	1
2		Some exact solution of the Navier-Stoke's equation and major developments	8
	a)	Some exact solution of the Navier-Stoke's equation	8
	b)	Major Developments in the exact solution of Navier-Stoke's equation	10
3		Approximate solution and Major developments in approximate solution of Navier-Stoke's equations.	13
	a)	Approximate solution of Navier-Stoke's equation	13
	b)	Major Development in approximate solution of Navier-Stoke's equation	14
		References	1 7

CHAPTER-II

Navier-Stoke's Equations in porous media

1	Basic concepts required for our problem to be discussed.	20
2	Flow through porous media and major development in the flow problems in porous media.	24

Sec	t	io	n
-----	---	----	---

.

Title

Page

-

	a)	Flow through porous media	24
	b)	Major developments in the flow problems in porous media.	26
3		Flow in convergent and Divergent porous channels.	41
4		Generalized plane couette flow between two parallel plates.	51
5		Generalized plane couette flow between two coaxial infinite cylinders, when inner cylinder is moving with constant velocity U and other is at rest.	56
6		Spiral flow between two co-axial cylinders when the outer and inner cylinders are rotating with constant angular velocities.	59
		References	64