SYNOPSIS

of the thesis entitled 'Some Problems in Boundary Layer Theory with or without Magnetic Field' to be submitted for the award of a Ph.D. degree of the Marathwada University, Aurangabad.

by

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CHAPTER - I

Unsteady free convective flow of dissipative, incompressible fluid past an infinite porous plate with time-dependent suction.

An analysis is of a twodimensional unsteady free convective flow of an incompressible, viscous dissipative fluid past an infinite porous plate with time dependent suction is presented. The effects of $P$ (the Prandtl number), $\omega$ (frequency Parameter), $E$ (Eckert number) and $G$ (Grashof number) on the function affecting the mean velocity, mean wall shear stress, the mean temperature and the mean rate of heat transfer in the boundary layer are studied.