



UNIVERSITY OF READING

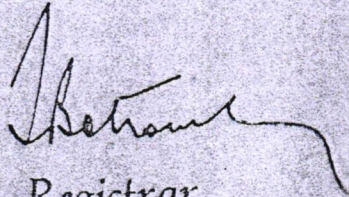
I hereby certify that

JOSEPH ALFRED ERWIN DESA

*has been duly admitted to
the Degree of*

DOCTOR OF PHILOSOPHY
of this University

11 December 1982


Registrar

Erwin Desa

Alvin B. Coyle, Notary Public, State of Missouri
My Commission Expires August 2, 1983
Boone County, Missouri

Alvin B. Coyle
1982 13 1983