EVALUATION OF THE "GATE" - CONTROL THEORY OF PAIN TRANSMISSION AND PERCEPTION

A THESIS SUBMITTED

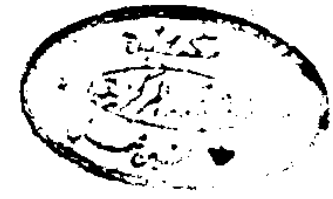
BY

ALI ISMAIL ALI EL SAYED

FOR

PARTIAL FULFILLMENT OF MASTER DEGREE IN NEUROLOGY

AND PSYCHOLGICAL MEDICINE



SUPERVISED BY

PROF. Dr. YOUSSEF ALI ABOU ZEID

PROFESSOR OF NEUROLOGY

NEUROLOGY AND PSYCHIATRY DEPARTMENT

FACULTY OF MEDICINE

AIN SHAMS UNIVERSITY

AND

PROF. Dr. SAMIHA ABDEL MONIEM

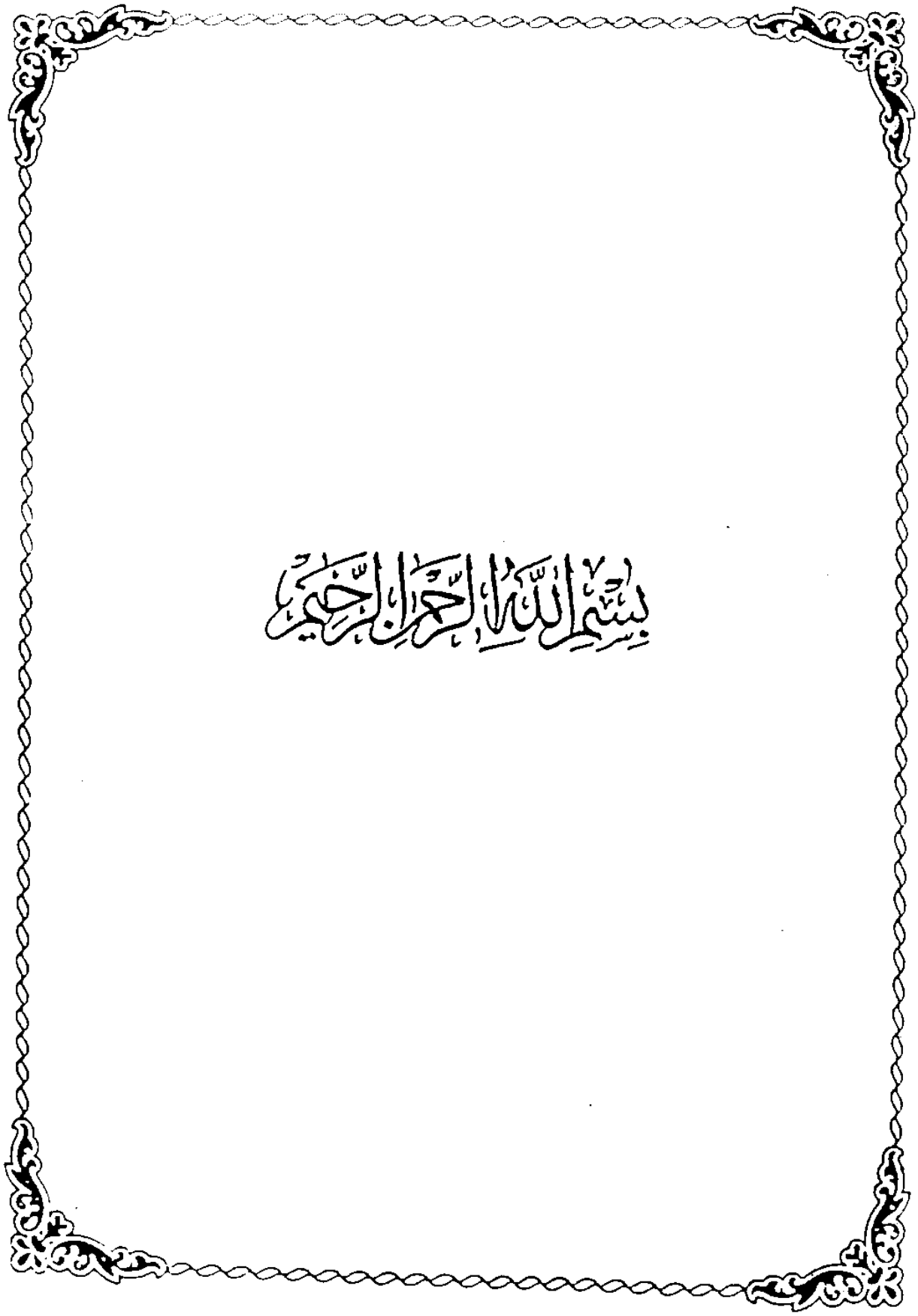
PROFESSOR OF NEUROLOGY

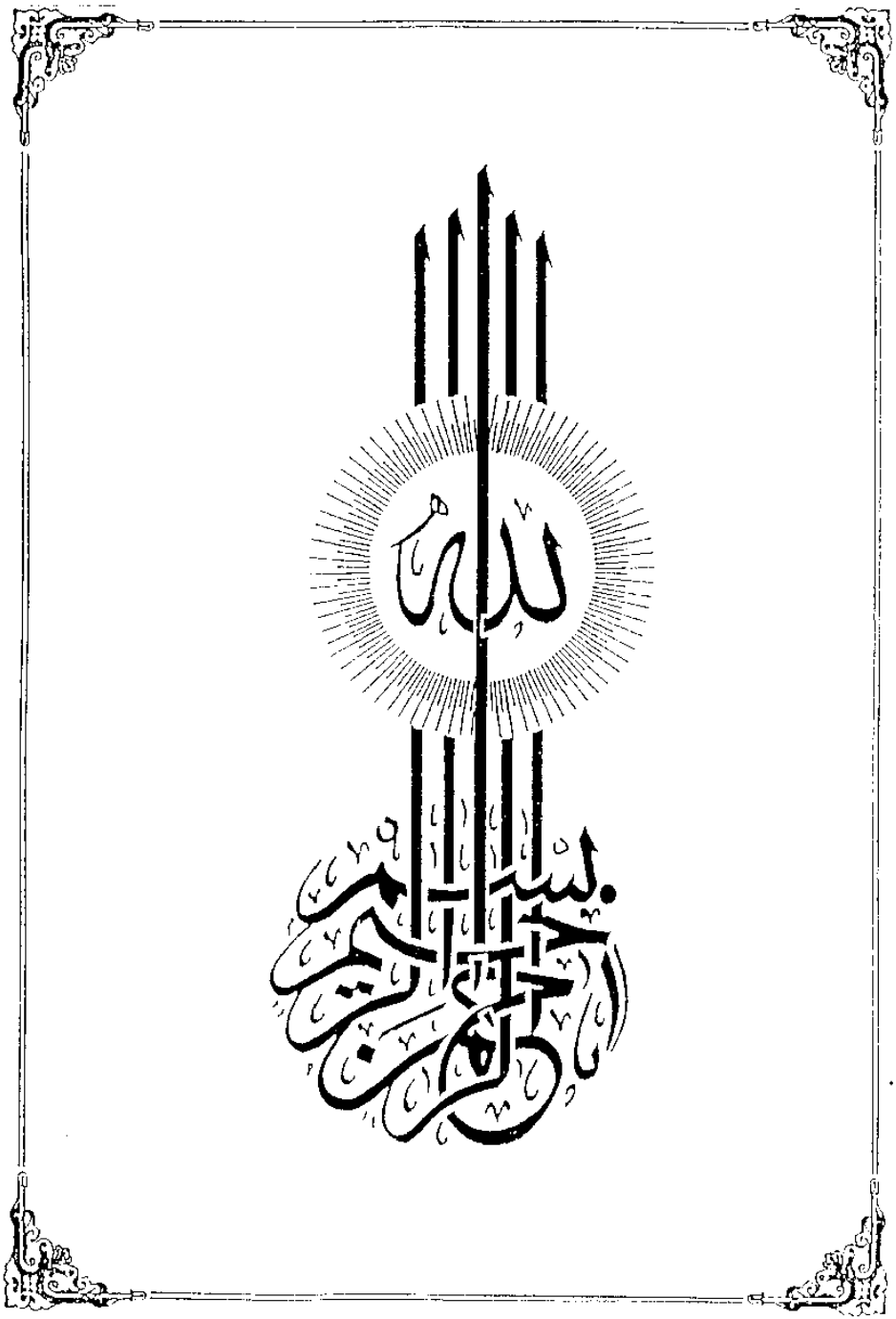
NEUROLOGY AND PSYCHIATRY DEPARTMENT

FACULTY OF MEDICINE

AIN SHAMS UNIVERSITY

1987.





To two men in my life;
prof. Dr. Said Ismail Ali ,And;
Mr. Hamdy Ismail Ali.
without them , I would not have
a useful existence
And to all who suffer from pain,
I affectionatly dedicate this work.

ACKNOWLEDGEMENTS

I wish to express my deepest thank and sincer gratitude to prof. Dr. Youssef Ali Abou Zeid, Prof., of Neurology, Neurology and psychiatry department; for encouragment and a never-failing interest during the entire study and also for his guidance and valuable remarks.

I am greatly indebted to prof., Dr Samiha Abdel Moniem; Prof., of Neurology, Neurology and psychiatry department, for her support and encouragement.

I am also grateful to prof. Dr . Mahmoud Moustafa, head of Neurology and psychiatry department and prof. Dr. Ahmed Okasha; prof., and head of psychiatry department; who are, reely, great men to follow in their steps, ... and to all the members of Neurology and psychiatry department.

Special thanks to both my big brothers and godfathers; prof. Dr. Said Ismail and Mr. Hamdy Ismail for their Kind and everlasting support, ... And,.... above all .... thanks God.

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ABBREVIATIONS

ALC	Anterolateral Column.
CCK	Cholecystokinin.
CSF	Cerebrospinal Fluid.
DA	Dopamine.
DCS	Dorsal Column Stimulation.
DC	Dorsal Column.
DBS	Deep Brain Stimulation.
DLF	Dorsolateral Funiculus.
FC	Fasiculus Cuneatus.
FG	Fasiculus Gracilis.
GABA	Gamma amino butyric acid.
GIA	Glutamat induced analgesia.
HTC	High Threshold Cells.
5-HT	5-Hydroxy tryptamine.
5-HIAA	5-hydroxy indol acetic acid.
HSAN	Heriditary Sensory and autonomic neuropathy.
IT	Intra thecal.
LT cells	Low threshold cells.
LRF	Lateral reticular Formation.
LCN	Lateral Cervical nucleus.
LF	Lateral Funculus.
NRM	Nucleus raphe magnus.
NRMC	Nucleus Reticularis magnocellularis.
NRO	Nucleus raphe obscurus.
NRPGC	Nucleus reticularis paragiganto cellularis.
NA	Noradrenalin.

NRP	Nucleus raphe pallidus
PG	Pituitary Gland.
PIS	Pituitary inhibitory system.
PCG	Postcentral gyrus.
PAG	Periaqueductal gray.
PGE s	Prostaglandins of the E Series.
PBR	Parabrachial region of pons.
PGI s	Prostaglandins of the I Series.
RF	Reticular Formation.
RVM	Rostral Ventromedial Medulla.
SG	Substantia Gelatinosa.
SPA	Stimulation - Produced analgesia.
SP	Substance P.
SDHN	Spinal dorsal horn neurones.
SOM	Somatostatin.
SRTT	Spino reticulo thalamic tract.
STT	Spinothalamic Tract.
TENS	Trans Cutaneous electric nerve stimulation.
VIP	Vasoactive Intestinal polypeptide.
WDR	Wide dynamic rang cells.