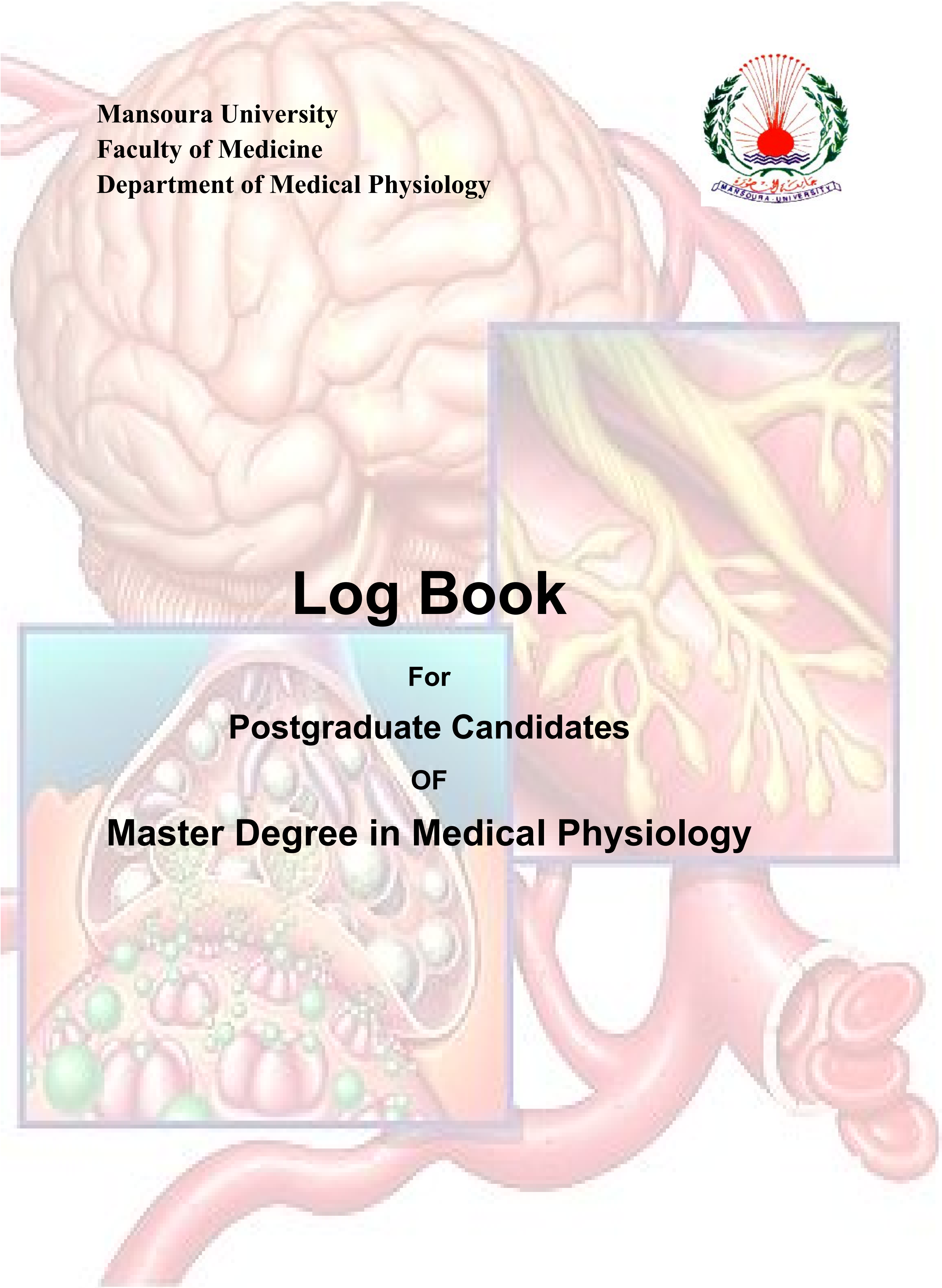
Mansoura University
Faculty of Medicine
Department of Medical Physiology



Log Book

For

Postgraduate Candidates

OF

Master Degree in Medical Physiology

Regulations:

i. The candidate should fulfill all required scientific activities specified in this Logbook. **A total of 23 credit hours is the minimum required before the candidate is allowed to submit for master examination.**

ii. These hours are distributed as follow:

1. 1st part
   - Compulsory theoretical course (lectures and practical) (4 credit hours).
   - Elective theoretical course (lectures and practical) (4 credit hours)
2. 2nd part
   - Elective theoretical course (lectures) (2 credit hours).
   - Compulsory theoretical course (lectures and practical) (13 credit hours).

iii. The credit hours are calculated as follow:

A) 1 hour theoretical lecture per week = 1 credit hour.

B) 2 hours practical class per week = 1 credit hour.

C) Attendance of seminars & journal clubs of others = 1/4 credit hour for each.

D) Attendance of thesis discussion = 1/2 credit hour for each.

E) Attendance of conferences = 1/2 credit hour for each.

F) Speaking in conference = 1 credit hour for each.

G) Attendance of the extradepartmental workshops or courses = 2 credit hours for each

H) Presentation of seminars or journal clubs = 1/2 credit hours for each.

I) Preparation of review articles = 1/2 credit hours for each.

iv. The minimum requirement of each individual Logbook activity is shown as follow:

A) Attendance of seminars & journal clubs of others (at least 2 credit hours)
B) Attendance of thesis discussion (at least 1 credit hour).
C) Attendance of conferences (at least 1 credit hour).
D) Attendance of the annual scientific conference of Mansoura Faculty of Medicine is a must.
E) Presentation of seminars (at least 2 credit hours).
F) Presentation of journal clubs (at least 2 credit hours).
G) Preparation of review articles (at least 2 credit hours).

☐ Personal Data:

Recent Photo

- **Name:**
- **Nationality:**
- **Date of Birth:**
- **Marital Status:**
- **Address:**
- **Telephone:**
    - ***Home:***
    - ***Mobile:***
- **E-mail:**
- **Date of registration for master degree:**

First Part

Postgraduate Lectures (Theoretical Course)

No.	Date	Subject	Signature

First Part

Postgraduate Lectures (Theoretical Course)

No.	Date	Subject	Signature

Second Part

Postgraduate Lectures (Theoretical Course)

No.	Date	Subject	Signature

Second Part

Postgraduate Lectures (Theoretical Course)

No.	Date	Subject	Signature

First Part

Practical Classes

No.	Date	Subject	Signature

First Part

Practical Classes

No.	Date	Subject	Signature

Second Part

Practical Classes

No.	Date	Subject	Signature

Second Part

Practical Classes

No.	Date	Subject	Signature

Conferences, Seminars, Journal Clubs, Thesis Discussion & Workshops Attendance

No.	Date	Subject	Signature

Seminars & Journal Clubs presented

No.	Date	Subject	Signature

Review Articles Prepared

No.	Date	Subject	Signature

Undergraduate Teaching Activities

(as predetermined by the department)

No.	Date	Subject	Signature

Scientific Lectures

First Part

Elective (internal Medicine)

No.	Scientific Lecture	Date	Signature
	Acid Peptic Disorders		
	Abnormal liver functions		
	Liver cell failure		
	Pancreatitis		
	Bowel habit disorders		
	Acute right sided heart failure		
	Acute left sided heart failure		
	Chronic right sided heart failure		
	Chronic left sided heart failure		
	Respiratory failure type I		
	Respiratory failure type 2		
	Arterial blood gases		
	Anaemias		
	Bleeding disorders		
	Thrombotic disorder		
	Diabetes mellitus		
	Thyroid disorders		
	Suprarenal gland disorders		
	Pituitary glands disorder		
	Acute Renal failure		
	Chronic renal failure		
	Coma		
	Convulsions		

	Rheumatic fever		
	Rheumatic arthritis		

Compulsory (Cell Physiology)

No.	Scientific Lecture	Date	Signature
	Organization of human body		
	Body fluid compartments		
	Homeostasis		
	Functions of cell membrane		
	Functional organization of cell membrane		
	Diffusion through cell membrane		
	Osmosis		
	Active transport through cell membrane		
	Vesicular transport		
	Functions of cell organelles		
	Genetic control of cell		
	Membrane potentials and equilibrium potentials		
	Electrophysiology of cell membrane		
	Physics of flow and pressure		
	Physics of gases		
	Physics of light		
	Physics of sounds		

Second Part

Elective (Aviation Physiology)

No.	Scientific Lecture	Date	Signature
	Effects of Low Oxygen Pressure on the Body		
	Alveolar PO2 at Different Elevations		
	Effect of Breathing Pure Oxygen on Alveolar PO2 at Different Altitudes		
	The “Ceiling” When Breathing Air and When Breathing Oxygen in an Unpressurized Airplane		
	Acute Effects of Hypoxia		
	Acclimatization to Low PO2		
	Natural Acclimatization of Native Human Beings Living at High Altitudes		
	Acute Mountain Sickness and High-Altitude Pulmonary Edema		
	Chronic Mountain Sickness		
	Effects of Acceleratory Forces on the Body in Aviation and Space Physiology		
	Effects of Linear Acceleratory Forces on the Body		
	“Artificial Climate” in the Sealed Spacecraft		
	Weightlessness in Space		
	Physiologic Problems of Weightlessness (Microgravity)		

Second Part

Compulsory (General Physiology)

No.	Scientific Lecture	Date	Signature
	Digestive system 1) Digestive & absorptive function of GIT. 2) Reflexes controlling function of GIT. 3) Hormones controlling function of GIT. 4) Functional abnormalities in GIT		
	Endocrine system 1) Chemical nature, release and transport of hormones and mechanism of hormone action. 2) Pituitary gland (adeno and neurohypophysis) and Physiology of growth. 3) Thyroid gland. 4) Parathyroid gland and Endocrine regulation of calcium & phosphate metabolism. 5) Endocrine regulation of blood glucose and endocrine function of pancreas 6) Suprarenal gland: cortex and medulla. 7) Physiology of male and female reproductive system.		
	Renal Physiology		

	1) Nephron and Juxtaglomerular apparatus. 2) Renal blood flow RBF. 3) Glomerular filtration and Glomerular filtration rate. 4) Methods of studying renal physiology and concept of clearance methods. 5) Tubular function 6) Renal handing of water. 7) Control of body fluid osmolarity (water balance). 8) Regulation of sodium excretion & extracellular fluid volume. 9) Diuresis and diuretics. 10) Renal handling of K^+, Ca^{+2}, mg^{+2}, and phosphate. 11) Role of the kidney in acid - base balance. 12) Physiology of Micturition		
	Central nervous system 1) Physiology of autonomic N. system 2) Physiology of somatic sensations 3) Neurotransmitters and neuromodulatrors 4) Reflex Actions. 5) Control of posture and Movement. 6) Motor neuron lesions and spinal cord		

	lesions 7) Learning, Memory, languages speech. 8) Electrical activity of the brain, sleep-wake stoles & circadian rhythms 9) Hypothalamic role in endocrine & control, stress and emotions 10) Cerebrospinal fluid formation – composition and function		
	<u>Physiology of special senses</u> 1) Physiology of vision (image formation and phototransduction) 2) Functions of intraocular fluids and accessory extroocular structures 3) Physiology of hearing 4) Taste sensation 5) Olfactory sensation		
	<u>Physiology of metabolism</u> 1) Energy metabolism 2) Metabolic Rate thermogenesis 3) Control of Food Intake and Regulation of Energy Stores 4) Regulation of Body Temperature Physiology of Exercise		
	<u>Cardiovascular system</u> 1) Cardiac properties 2) Cardiac cycle, JVP, AP, ECG, HS 3) Heart rate		

	4) C .O .P and cardiac reserve 5) Arterial blood pressure 6) Capillary, Venous, Lymphatic, Coronary, Pulmonary, Cerebral, Splanchanic and Cutaneous circulations 7) Hemorrhage and Shock		
	Respiratory physiology 1) Pulmonary ventilation. 2) Gas transport. 3) Regulation of respiration. 4) Respiratory adjustments in health & disease.		
	Blood 1) Plasma proteins 2) Blood volume , total body water 3) Haemostasis 4) Disorders of haemostasis 5) RBCS 6) Blood groups and Blood transfusion 7) WBC and Immunity		

	Nerve and muscle 1) Properties of nerve fibers 2) R.M.P, A.P and Graded potential 3) Factors affecting excitability of Types nerve fibers 4) Nerve muscular trans mission 5) Mechanism of skeletal ms. Contraction 6) Changes occurring in the muscle during and after mi contraction 7) Types and Factors affecting skeletal ms Contraction 8) Physiology of Smooth muscles.		

Second Part

Practical Sections

No.	Scientific Lecture	Date	Signature
	1.Preparation of physiological solutions		
	2. skeletal muscle contraction of factors affecting SMT		
	3. Assessment of N –M transmission		
	4. Assessment of smooth muscle contraction (intestine)		
	5. Assessment of nerve conduction velocity		
	6. determination of types of receptor in inflated perfused heart		
	7. Recording of HR & ECG in experimental animals		
	8. Assessment of Autonomic Function in Man		
	9. Determination of blood groups , HCT , ESR, Hb , osmotic fragility , Bleeding time & coagulation time		
	10. RNA and DNA Extraction, Polymerase Chain Reaction, Electrophoresis Techniques, Reverse transcriptase PCR (Gene Expression Analysis), Real Time PCR		

FINAL REPORT

Signitature

Head of Department