



# MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

(From Academic Year 2012-13 & onwards)

## Syllabus for MD/MS (Ayurved) Preliminary Examination

### 3.KRIYA SHARIR (Physiology)

#### PAPER-II

THEORY- 100 marks

#### PART-A

50 marks

- 01 Theory of Loka-Purusha Samya
- 02 Theory of Panchamahabhuta
- 03 Physiological aspects of Samanya – Visheshha siddhanta
- 04 Concepts of Tridosha and Triguna
- 05 Concept of Dhatu
- 06 Concept of Mala
- 07 Description of Ojas
- 08 Process of Ahara Parinama including Aharaparinamakara Bhava and Asta Ahara Vidhi Visesayatana
- 09 Physiological importance of Agni, its classification and functions
- 10 Dhatuposana theories
- 11 Concepts of Atma, Manas and Indriya.
- 12 Concepts of Prakriti and Ashtavidha Sara.
- 13 Concept of Srotas

## **PART-B**

**50 marks**

Description of essential and relevant understandings related to contemporary physiology, both general physiology and systemic physiology.

- 01** Essentials of cell physiology – organization of cell.
- 02** Membrane physiology- transport across cell membrane, action potentials and resting membrane potentials.
- 03** Homeostasis- negative and positive feedback mechanisms.
- 04** Genetic code, its expression and regulation of gene expression.
- 05** Essentials of cardiovascular physiology- cardiac cycle, regulation of heart rate and blood pressure.
- 06** Essentials of respiratory physiology- regulation of respiration-chemical and neural, gaseous exchange, transportation of gases.
- 07** Gastrointestinal physiology- various digestive juices and their actions, gastrointestinal hormones, enteric nervous system.
- 08** Nervous system physiology- ANS, somatic nervous system, reflexes, general and special sensations, higher mental functions, functions of brain, brainstem and spinal cord.
- 09** Blood: Blood cells-RBCs, WBCs, platelets, plasma proteins and immunity
- 10** Muscle physiology: properties and mechanisms of contraction of skeletal, cardiac and smooth muscles.
- 11** Physiology of excretion- mechanism of urine formation, micturition.
- 12** Endocrine physiology: Classification of hormones, hormones secreted by pituitary, thyroid, parathyroid, adrenal glands, pineal, pancreas and their functions.

Study of male and female reproductive system: functions of reproductive hormones.

## PRACTICAL

100 marks

### Contents:

#### Ayurvedic practicals

Assessment of Prakriti

Assessment of Sara

Pramana Pariksha

Agnikoshta Pariksha

#### Hematology

Hemoglobin estimation

Total RBC count

Total WBC count

Differential leukocyte count

Packed cell volume (PCV)

ESR

Bleeding time

Clotting time

Blood grouping and Rh typing

#### Urine examination -

**Physical examination-** Specific gravity and reaction of urine

#### **Chemical examination**

Albumin test

Sugar test

Ketone bodies

Bile salts and pigments

#### **Distribution of marks (Practical)**

01	Laboratory Practical	-	20
02	Human Experiment	-	15
03	Spotting	-	15
04	Prakriti Saradi pariksha	-	20
05	Practical Record	-	10
06	Viva-voce	-	20

## Format of Question Paper

### PART -A

Q. No.	Nature of Questions	Division of Marks	Total Marks
1	L.A.Q.	15x2	30 Marks
2	S.A.Q. Attempt any 4 out of 5	5x4	20 Marks
		<b>Total</b>	<b>50 Marks</b>

### PART-B

Q. No.	Nature of Questions	Division of Marks	Total Marks
1	L.A.Q.	15x2	30 Marks
2	S.A.Q. Attempt any 4 out of 5	5x4	20 Marks
		<b>Total</b>	<b>50 Marks</b>

### REFERENCE BOOKS:

- |    |  |  |
|----|--|--|
| 01 | Ayurvediya Kriyasharir   | - Ranjit Rai Desai                       |
| 02 | Kayachikitsa Parichaya   | - C. Dwarkanath                          |
| 03 | Prakrit Agni Vigyan  | - C. Dwarkanath                          |
| 04 | Sharir Kriya Vigyan  | - Shiv Charan Dhyani                     |
| 05 | Abhinava Sharir Kriya Vigyana  | - Acharya Priyavrata Sharma              |
| 06 | Dosha Dhatu Mala Vigyana   | - Shankar Gangadhar Vaidya               |
| 07 | Prakrita Dosha Vigyana   | - Acharya Niranjana Dev                  |
| 08 | Tridosha Vigyana   | - Shri Upendranath Das                   |
| 09 | Sharira Tatva Darshana   | - Hirlekar Shastri                       |
| 10 | Prakrita Agni Vigyana  | - Niranjana Dev                          |
| 11 | Deha Dhatvagni Vigyana   | - Vd. Pt. Haridatt Shastri               |
| 12 | Sharir Kriya Vigyana (Part 1-2)  | - Acharya Purnchandra Jain               |
| 13 | Sharir Kriya Vigyana   | - Shri Moreshwar Dutta Vd.               |
| 14 | Sharira Kriya Vijnana (Part 1-2)   | - Nandini Dhargalkar                     |
| 15 | Dosha Dhatu Mala Vigyana   | - Basant Kumar Shrimal                   |
| 16 | Abhinava Sharir Kriya Vigyana  | - Dr. Shiv Kumar Gaur                    |
| 17 | Pragyogik Kriya Sharir   | - Acharya P.C. Jain                      |
| 18 | Kaya Chikitsa Parichaya  | - Dr. C. Dwarkanath                      |
| 19 | Concept of Agni  | - Vd. Bhagwan Das                        |
| 20 | Purush Vichaya   | - Acharya V.J. Thakar                    |
| 21 | Kriya Sharir   | - Prof. Yogesh Chandra Mishra            |
| 22 | Sharir Kriya Vigyana   | - Prof. Jayaram Yadav & Dr. Sunil Verma  |
| 23 | Basic Principles of Kriya-Sharir (A treatise on Ayurvedic Physiology) by | - Dr. Srikant Kumar Panda                |
| 24 | Sharir Kriya – Part I & II   | - Dr. Ranade, Dr. Deshpande & Dr. Chobhe |
| 25 | Human Physiology in Ayurveda   | - Dr Kishor Patwardhan                   |
| 26 | Sharirkriya Vignyan Practical Hand Book                                  | - Dr.Ranade, Dr.Chobhe, Dr. Deshpande    |
| 27 | Sharir Kriya Part 1&2  | - Dr.R.R.Deshapande, Dr.Wavhal           |
| 28 | Textbook of Physiology   | - Gyton & Hall                           |
| 29 | Review of medical physiology   | - William Ganong                         |
| 30 | Essentials Of Medical Physiology   | - Sembulingam, K.                        |
| 31 | Concise Medical Physiology   | - Chaudhari, Sujit. K.                   |
| 32 | Fundamental of Anatomy & Physiology                                      | - Martini                                |
| 33 | Principals of Anatomy & Physiology                                       | - Tortora & Grabowski                    |
| 34 | Human Physiology   | - Richards, Pocock                       |

- 35** Samson Wrights Applied Physiology, Keele, Neil,  
joels
- 36** Brainstem Control of Wakefulness And Sleep - Steriade, Mirce
- 37** An Introduction to Human Physiology - Green, J.h.
- 38** Ancient Indian Medicine - Kutumbiah P.
- 39** Biographical History of Indian Medicine - Srikanthamurthy KR
- 40** Ayurveda Kriya Sharira - Yogesh Chandra Mishra
- 41** Textbook of Medical Physiology - Indu Khurana
- 42** Tridosha Theory - Subrahmanya Shastri
- 43** Statistics in Medicine - K. Syamalan

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