MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

19. SANGYAHARAN (Anesthesiology)

PAPER-II

THEORY- 100 marks

PART–A

50 marks

01 Shisyopanayana,Vishikhanupravesha, Agropaharaniay and Shatkriyakala.
02 Etymology and definition of Sangyaharan and its scope, application and importance in surgical practice.
03 Fundamentals of Ayurveda in relation to Sangyaharan- Panchmahabhuta, Prakriti, Dosha, Dhatu and Mala.
04 Concept of Vedana (pain), pathophysiology and modalities of pain management in Ayurveda.
05 Agni Karma in pain management.
06 Introduction, fundamentals, importance, types, methods of application, duration, instruments, equipments and various materials used for Agni Karma. The indications, contraindications, complications of Agni karma and their management.
07 Raktamokshana (blood letting) in pain management.
08 Introduction, fundamentals, importance, types, methods of application, duration, instruments, equipments and various materials used for Raktamokshana. Indications, contraindications, complications of Raktamokshana and their management.
09 Causes of vitiation of Rakta Dosha and Rakta Dushtijanya Vikaras.
10 Types of Raktamokshana and determination of appropriate amount of blood loss during Raktamokhana according to diseases and patients.
11 Methods of Raktastambhana.
12 Leech Therapy in pain management. Varieties, importance, methods of applications, indications, contraindications, complications and their management and method of maintenance of leeches
13 Trividha Karma – Purva karma (preanaesthetic management), Pradhana karma(induction and maintenance) and Pashchat Karma (post anesthetic care).
14 Concept of Marma, their importance and application in Sangyaharan.
15 Concept of palliative care and its role in terminally ill patient care in Ayurveda.

PART–B

50 marks

History of anesthesia.

01 Molecular basis of anesthesia, cell physiology and body fluids.

02 Respiratory system: Anatomy of the upper airway – nose, pharynx, larynx, tracheobronchial segment, mechanics of respiration, physiology of respiration, ventilation, perfusion matching, lung volumes and capacities, pulmonary gas exchange and transport of gases, lung function tests – including laboratory tests for obstructive and restrictive lung diseases.

03 Cardiovascular system: Anatomy and physiology of heart and autonomic nervous system, maintenance of blood pressure, systemic circulation, pulmonary circulation, microcirculation and lymphatics.

04 Nervous system: Anatomy and physiology of central nervous system, cranial nerves, nerve plexuses, spinal column. Physiology of sleep, sleep disorders, physiology of pain, physiology of neuromuscular junction, autonomic nervous system – sympathetic and parasympathetic.

05 Endocrinology as related to anesthesia: Function of anterior and posterior pituitary and their dysfunction, hyper and hypothyroidism, hyper and hypopara-thyroidism, diabetes mellitus – hypo and hyperglycemia, ketoacidosis. Adrenal cortex and medulla functions and disorders.

06 Pathophysiology of renal failure, renal function tests

07 Pathophysiology of hepatic failure, liver function tests.

08 Shock and its management.

09 Fluid and electrolyte, acid base balance, ABG interpretation and water intoxication

10 Thermoregulation.

11 Pre anesthetic assessment and permedication.

12 Physics applied to anesthesia: Gas laws, ventilators & monitors, flow meters, vaporizers, breathing systems, carbon-dioxide absorbers, medical gas supply, suction machines, electrical fire & explosion hazards, pollution in O.T.

13 Sepsis, asepsis and sterilization- methods, types of sterilization of machine and equipments with special reference to tetanus, hepatitis, HIV-AIDS etc. O.T. fumigation.

14 Intravenous fluids, crystalloid & colloids, their indications, contra indications, complications and their management.

15 Blood transfusion-indication, contra indications, complications and their management, component therapy.

16 Medicolegal and ethical aspects in research and patient care. Medico legal issues, understanding the implications of acts of omission and profession, National Health policy - implications in a medico legal case like accidents, negligence, assaults etc.

17 Anaesthisa documentation and record keeping

PRACTICAL

100 marks

Contents:

01 Anesthetic Drugs
02 Demonstration of induction of Anesthesia.
03 Preanaesthetic assessment of patients.
04 Post anesthesia management
05 Complications of anesthesia and their management.
06 Identification of instruments and knowledge of their use.

Distribution of marks (Practical) :

01 Anesthesia documentation & record keeping -20 Marks
02 Bedside clinical case taking
Long Case - 20 Marks
Short Case - 10 Marks
03 Procedures -15 Marks
04 Identification of instruments & Spotting -15 Marks
05 Viva voce -20 Marks

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
		Total	**50 Marks**

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
		Total	**50 Marks**

REFERENCE BOOKS:

1 Shusruta Samhita -
1 Charak Samhita -
2 Ashtang Hridaya -
3 Practice of Anesthesia - Churchill Davidson
4 Miller's Anesthesia - Ronald D Miller
5 Synopsis of Anesthesia - Alfred Lee
6 Sangyaharan Prakash - Dr. D. N. Pande
7 Agni karma-Technological Innovation - Dr. P.D. Gupta
8 Practice of Anesthesia and Resuscitation - Dr. P.K. Gupta et al
9 Essentials of Anesthesiology - Prof. A.K. Paul
10 Clinical Anesthesia - Prof. A.K. Paul
11 Anu Shastra karma - Dr. D.N. Pande
12 Textbook of Anesthesia - Aitkenhead
13 Anesthesia and co-existing disease - Stoelting's

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