



(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

15. KAUMARBHRITYA - BALA ROGA
(Pediatrics)

PAPER-II

THEORY- 100 marks

PART-A

50 marks

- 01** Development of Kaumarbhritya tantra including ancient and modern literature. Strength of Ayurveda specific to child health care.
- 02** Vayobheda (Classification of age) according to different classics
- 03** Anatomical and physiological differences in child compared to adult.
- 04** Ayurvedic consideration of physiology and pathology of Dosha, Dhatu, Mala, Oja, Agni, Prakriti (sharirika-manasika), Kaya and Dhatuposhana in children.
- 05** Basic Concepts of growth and development, and its assessment.
- 06** Ayurvedic and modern clinical methods of examination of healthy and diseased newborn and children.
- 07** Knowledge of modern diagnostic tools like clinical and laboratory investigations, X-ray, USG, MRI etc.
- 08** Fundamentals of Ayurvedic treatment for childhood disorders
- 09** Applied pharmacological considerations: Ayurvedic and modern concepts of drug doses, administration, distribution, metabolism, excretion, and other important factors of consideration.
- 10** National programs related to pediatrics.
- 11** Childhood Samskara
- 12** Principles of Child Psychology (Ayurvedic & modern concepts)

PART-B

50 marks

- 01** Concept of Bala Rasayana and its application in physical and mental health of children.
- 02** Concept of Vyadhi-Kshamatva avam Vardhanopaya. Concept of immunity and immune enhancing measures including immunization.
- 03** Concept of Dhupana and Raksha karma and their clinical application in pediatric practice
- 04** Basic concepts of single drugs commonly used in pediatric practice with special reference to their karma like- Guduchi, Yastimadhu, Mandukaparni, Shankhapushpi, Ativisha, Pippali, Maricha, Shunti, Haritaki, Amalaki, Tulasi, Bhumyamalaki, Daruharidra, Haridra, Vidanga, Katuki, Dadima, Brahmi, Ashvagandha, Shatavari, Bala, Kampillaka, Trivrita, Jyotishmati, Vacha, Jeevanti, Rasna, Shatavari, Anantamula (Krishna Sariva), Durva, Khadir, Tankana, Tambula, Jatamansi, Sphatika.
- 05** Knowledge of their ingredients, indications, precautions and specific considerations including adverse drug reactions (ADR) of commonly used Ayurvedic formulations in pediatric practice e.g. Aravindasava, Baalachaturbhadra Churna, Kumarakalyana Rasa, Saraswatarista,

Swarnaprashana (Kashyapa Samhita), Kumaryasava, Kushmanda Rasayana (Sharangdhar), Ashvagandha Rasayana (Ashtanga Hridaya), Brahmi Ghrita, Kalyanaka Ghrita, Talishadi Churna, Sitopaladi Churna, Haridra Khanda, Krimikuthara Rasa, Mugdha Rasa, Dantodbheda-Gadantaka Rasa, Rajanyadi Churna (Ashtanga Hridaya), Samvardhana Ghrita, Ashta Mangal Ghrita.

- 06** Methods of preparation of various specific Kalpana (e.g. Lehya, Syrup, drops etc.) according to needs of children.
- 07** Common instruments and their application in new born care and general pediatric practice.
- 08** Specific considerations in research methods related to Pediatrics.
- 09** Regulatory laws related to child health management.

PRACTICAL

100 marks

Contents:

- 01** a) In-patient case history record -(25 Patient)
b) Child Health record - (50 Case)
- 02** Involvement in Outreach and National programs:
1. School Child health checkup
2. Adolescent education
3. Adolescent counseling etc
- 03** Pediatric ward/nursery management.

Distribution of marks (Practical) :

- | | | |
|-----------|--|------------|
| 01 | a) Case History Record - (25 Patient) | - 10 Marks |
| | b) Child Health record - (50 Case) | - 10 Marks |
| 02 | Bedside clinical case taking | |
| | Long Case | - 20 Marks |
| | Short Case | - 10 Marks |
| 03 | Procedures/ Kriya Kalpa | -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 Kashyapa Samhita Complete Hindi translation by Satyapal Vidhyalankara English translation by Prof. Premvati Tiwari
- 2 Principles & practice of Pediatrics in Ayurveda: CHS Shastry
- 3 Child Health Care in Ayurveda: Abhimanyu Kumar
- 4 Ayurvedic Concepts of human Embryology: Abhimanyu Kumar
- 5 Kaumarbhritya by Prof. D.N. Mishra
- 6 Kaumarbhritya Ke Antargata Balgraho Ka Kramika Evam Vaigyanika Adhyana by Prof. Chanchal Sharma
- 7 Notes on Kaumarbhritya-by Dr. Dinesh K S
- 8 Pran - Pratyagamanam-by Dr. B.M. Singh
- 9 Ayurveda Dwara Matra Evam Shishu Paricharya by Dr. KS Patel, V.K. Kori & Rajgopal S.
- 10 Kaumarbhritya related references from Charaka Samhita, Sushruta Samhita Vagbhata etc.

- 11 Clinical Methods in Paediatrics by Meharban Singh
- 12 Pediatrics Emergencies by Meharban Singh
- 13 Essential Pediatrics O.P. Ghai
- 14 Text Book of Pediatrics Nelson
- 15 Care of New Born by Meharban Singh



(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

10.KAYACHIKITSA
(General Medicine)

PAPER-II

THEORY- 100 marks

PART-A

50 marks

- 01** Understanding of fundamental concepts of Kayachikitsa like Vriddhi and Kshaya of Dosha, Dushya, Mala with Amshaamsha Kalpana. Srotodushti, Khavaigunya, Agni, Ama (Saama and Nirama Dosha, Dhatu & Mala). Aavarana, Rogamarga, Ashayapakarsha, Dosha Gati, Kriyakala. Aushadha Sevana Kala, Anupana, Pathya-Apathya and their scientific relevance during health and disease.
- 02** Detailed knowledge of Rogi Roga Pariksha including detailed history taking and systemic examination of patient. Clinical implementation of Dwividha Pariksha, Trividha Pariksha, Chaturvidha Pariksha, Panchavidha Pariksha, Shadvidha Pariksha, Ashtavidha Pariksha, Dashvidha Pariksha Bhavas and Prakriyadi Dashvidha Pariksha.
- 03** Principles of Kayachikitsa in disease management including Shodhana, Shamana and Naimittika Rasayana.
- 04** Introduction of the basic principles of Modern medicine, Homeopathy, Unani, Siddha, Tibetan Medicine, Yoga and Naturopathy and their relevance in light of the basic principles of Ayurvedic medicine.

PART-B

50 marks

- 01** Chikitsa Siddhanta of Pranavaha, Annavaha, Udakavaha, Rasadi Dhatuvaha, Malavaha & Manovaha Srotovikara.
- 02** Emergency medicine: Acute Severe Asthma, pulmonary oedema, myocardial infarction, cerebro-vascular accidents, water and electrolyte imbalance, haemorrhage, syncope, seizure, coma, hyperpyrexia, hypertensive encephalopathy.
- 03** Knowledge of conducting various medical procedures like infusions, tapping, lumbar puncture, Ryle's tube insertion, catheterization, tractions, water seal drainage, Cardio Pulmonary Ressucitation.
- 04** Basic knowledge of underlying principles of ECG, TMT, echo cardiography, vascular doppler studies, EEG, EMG, X-Ray, USG, CT scan, MRI, PET and their interpretation.
- 05** Knowledge of common Ayurvedic formulations and preparations used in treatment:
Churna- Triphala, Sitopaladi, Lavanbhaskara, Hingvashtaka, Avipattikara, Gangadhara, Shaddharana, Sudarshana, Panchasakara, Ajmodadi.

Kashaya- Dashamula, Rasnasaptaka, Asanadi, Pathyadi, Phalatrikadi,

Punarnavashtaka, Gojivhadi, Mahamanjishthadi, Drakshadi Kashaya.

Asavas-Arista- Amritarishta, Kanakasava, Chitrakasava, Saraswatarishta, Ashwagandharishta, Chandanasava

Vati- Sanjivani, Chandraprabha, Agnitundi, Chitrakadi, Khadiradi, Vyoshadi, Shankha Vati, Shiva Gutika. Guggula-Kalpana-Triphalaguggula, Kaishoraguggula, Trayodashangaguggula, Simhanadaguggula, Yogarajaguggula, Gokshuradi guggula, Kanchanaraguggula

Rasaushadhi- Tribhuvanakirti Rasa, Arogyavardhini Rasa, Shwasakuthara Rasa, Rasamanikya Rasa, Smritisagara Rasa, Lakshmivilasa Rasa, Sutshekhara Rasa, Pravala Panchamrita Parpati, Hemagarbhapottali Rasa.

Taila- Mahanarayana Taila, Pindataila, Prasarinyadi Taila, Ksheerabala Taila, Brihat Saindhavadi Taila, Panchaguna Taila, Amritadi Taila, Marichyadi Taila, Mahamasha Taila.

Ghrita- Mahatriphaladi Ghrita, Brahmi Ghrita, Panchtikta Guggulu Ghrita, Sukumara Ghrita, Dadimadya Ghrita, Kankari Ghrita, Kalyanaka Ghrita. Lehya- Chyavanaprasha Avaleha, Kushmanda Avaleha, Ashwagandha Avaleha, Agastya Hareetaki Rasayana, Drakshavaleha, Vasavaleha, Amrita-Bhallataka Rasayana.

PRACTICAL

100 marks

Contents:

01 Daily hospital duties in OPD, IPD and casualty

02 Bed-side case taking – 25 patients

Distribution of marks (Practical) :

| | | |
|----|---------------------------------------|------------|
| 01 | Case records of 25 Patients in detail | - 20 Marks |
| 02 | Bedside clinical case taking- | |
| | a) Long case | - 20 Marks |
| | b) Short case | -10 Marks |
| 03 | Medical procedures/laboratory work | -15 Marks |
| 04 | Instruments and 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 | Charak Samhita | - | Cakrapanidutta commentry |
| 2 | Sushrut Samhita | - | with all available Commentaries. |
| 3 | Ashtang Samgraha | - | Indu commentary |
| 4 | Ashtang Hridaya | - | Arundutta and Hemadri Commentry |
| 5 | Cikitsadarsha | - | Pandit Rajesvardutta Shastri |
| 6 | Kayachikitsa | - | Ramaraksha Pathak |
| 7 | Rog Pariksha Vidhi | - | Priyavrat Sharma |
| 8 | Panchakarma Vigyan | - | Haridas Sridhar Kasture |
| 9 | Ayurved Nidan Chikitsa Siddhanta | - | Prof. R.H.Singh |
| 10 | Kayachikitsa Vol. I-IV. | - | Prof. Ajay Kumar |
| 11 | Davidson's Principles and Practice of Medicine. | - | |
| 12 | API Text Book of Medicine. | - | |
| 13 | Harrison's Text Bok of Medicine. | - | |
| 14 | Harrison's Text Bok of Medicine. | - | |
| 15 | Cecil Text Book of Medicine. | - | |
| 16 | Relevant texts of concerned subjects. | - | |



(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

13.PANCHKARMA
(Five Therapeutic procedure)

PAPER-II

THEORY- 100 marks

PART-A

50 marks

- 01** Chikitsa and its classifications; Antah-Parimarjana and Bahir-Parimarjana Chikitsa
- 02** Principles of Chikitsa, Kriyakal, Shadvidha and Dvididha Upakrama and role of Panchakarma therein.
- 03** Applied aspects of Trividha, Shadvidha, Ashta Vidha and Dasha Vidha Pariksha.
- 04** Applied anatomy and physiology of cortex, cranial and peripheral nerves. Methods of physical examinations of central nervous system: sensory system, motor examination-muscle power and tone, superficial and deep reflexes, difference of upper and lower motor neuron lesions. Tremors and coordination.
- 05** Functions of various single muscles and groups of muscles, applied anatomy and physiology of joints. Methods of examination of locomotor system. Differential diagnosis of Amavata (rheumatoid arthritis), Vatarakta (gout) and Sandhivata (osteoarthritis). Examination of lumbar and cervical disorders including Gridhrasi (sciatica) and Vishvachi (Brachial neuralgia).
- 06** Applied anatomy and physiology of cardiovascular and respiratory systems, functions of capillaries and its permeability. Methods of examination of respiratory and cardiovascular system. Interpretation of spirometry and ECG findings.
- 07** Knowledge and method of examination of various skin lesions.

08 Applied anatomy of stomach, small intestine and large intestine. Detailed examination of gastro-intestinal system.

PART-B

50 marks

01 Definition of Karma. Trividha Karma for Shodhana

02 Importance of Panchakarma in health and disease.

03 Indications and contraindications for Shodhana. Applied aspects of Koshta and Agni.

04 Importance of Purva and Pashchata Karma in Shodhana. Parihara Vishaya for Panchakarma.

05 Samsarjana Krama. General knowledge of various Aushadha and Ahara Kalpana used for Panchakarma.

06 Areas of research in Panchkarma.

07 Knowledge of equipments and instruments used in Panchkarma in ancient times and the possible modifications therein now.

08 Knowledge of quality standards of NABH (National Accreditation Board of Hospitals) for Ayurveda, guidelines for establishment and management of eco-friendly Panchkarma theatre including management of biomedical waste.

PRACTICAL

100 marks

Contents

- 01 Duty in Panchakarma ward and theatre.
- 02 Performance of 5 Cases each of Snehana, Svedana, Vamana, Virechana, Basti and Nasya with maintaining of detailed record.
- 03 Record of detailed examination of 25 patients treated with Panchakarma and effects observed thereon.

Distribution of marks (Practical) :

- | | | |
|----|---------------------------------------|------------|
| 01 | Case records of 25 patients in detail | - 20 Marks |
| 02 | Performance of long Karma | - 20 Marks |
| 03 | Performance of short Karma | -10 Marks |
| 04 | Panchakarmal procedures | -15 Marks |
| 05 | Instruments and spotting | -15 Marks |
| 06 | 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 Charak Samhita with commentary of Ayurved Dipika by Chakrapanidatta and Jalpakalpa taruby Gangadhara
- 2 Sushruta Samhita with the Nibhandha Samgraha commentary of Dalhana and Nyayachandrika panjika of Gayadasa on nidansthana
- 3 Ashtang Hridaya with Sarvanga sundara and Ayurved rasayana commentaries
- 4 Ashtanga Sangraha with Shashilekha commentery
- 5 Bhela Samhita
- 6 Kashyapa Samhita
- 7 Bhavaprakasha of Bhavamishra

| | | | |
|----|--|---|--|
| 8 | Sharangadhara Samhita | | |
| 9 | Vangasen | | |
| 10 | Gadanigraha | | |
| 11 | Ayurvediya Panchkarma chikitsa | - | Dr Mukundilal Dwivedi |
| 12 | Panchkarma Vigyan | - | Dr Haridas Shreedhar Kasture |
| 13 | Illustrated Panchkarma | - | Dr.G Srinivasa Acharya |
| 14 | Ayurveda-Principles and Practice of Panchakarma | - | Dr. Mandip and Dr Gurdip Singh |
| 15 | The Panchkarma Treatment of Ayurved with Kerala Specialities | - | Dr. T.L. Devaraj |
| 16 | Panchkarma Therapy | - | Dr. R.H. Singh |
| 17 | Principles and practice of vasti | - | Dr. Vasudevan Nampoothiri and Dr. L. Mahadevan |
| 18 | Claiton's Physiotherapy | - | |
| 19 | Teddy's Physiotherapy | - | |
| 20 | Harrison's Principles of Internal Medicines | - | |
| 21 | Guyton's Physiology | - | |



(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

14. PRASUTI AVUM STRI ROGA
(Gynecology & obstetrics)

PAPER-II

THEORY- 100 marks

PART-A

50 marks

- 01** Concept of Tridosha, Dhatu, Upadhatu, Agni, Pancha Mahabhuta in relation to Prasuti and Stri Roga.
- 02** Concept of Artava and Shukra.
- 03** Concept of Rasa, Guna, Veerya, Vipak and Karma of Dravya used in Prasuti and Stri Roga.
- 04** Action and adverse drug reaction related to commonly used plants and Rasa Aushadhi in Prasuti and Stri Roga.
- 05** Concept of Pathya- Apathya in relation to Prasuti and Stri Roga.
- 06** Concept of Garbhadhan and Garbha.
- 07** Concept of Vrana and Vrana dushti.
- 08** Concept of special therapies of Ayurved used in Prasuti and Stri Roga.
- 09** Concept of Ashtavidha Shastra Karma, Yantra & shastra used in Prasuti and Stri Roga

PART-B

50 marks

- 01** Applied anatomy and physiology of genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, inguinal ligament, inguinal canal, vulva, rectum and anal canal.
- 02** Abnormal development, structure and function of female and male urogenital systems
- 03** Development, structure and function of placenta, umbilical cord and amniotic fluid.
- 04** Physiological and neuro-endocrinal changes during puberty, adolescence and menstruation.
- 05** Introduction of hormones related with gynaecology and obstetrics. Ovulation, fertilization, climacteric and menopause. Biophysical and biochemical changes in uterus and cervix during pregnancy and labour.
- 06** Pre-natal, Natal and Post natal counseling and examination.
- 07** Pharmacological study of drugs used in gynaecology and obstetrics
- 08** Knowledge of diagnostic techniques used in gynaecology and obstetrics.
- 09** Basic Knowledge of pathological and biochemical investigation used in gynaecology and obstetrics.
- 10** Ethics, law and Acts Related to gynaecology and obstetrics – laws of abortion and adoption.

- 11 Knowledge of contraception and sterilization procedures.
- 12 Pre-operative and post operative care in gynaecology and obstetrics.

PRACTICAL

100 marks

Contents:

- 01 Hospital duties in OPD, IPD, labor room, OT and casualty
- 02 History taking and counseling - 25 cases.
- 03 Labor cases - observation/performing - 10 cases
- 04 Knowledge of instruments required in gynaecology and obstetric practices
- 05 Ayurvedic diagnostic and therapeutic procedures.
- 06 Fluid therapy and blood transfusion
- 07 Contraception and sterilizations.
- 08 Pre-operative, operative and post operative procedures.

Distribution of marks (Practical) :

- | | | |
|----|---|------------|
| 01 | Case records of 25 patients in detail | - 20 Marks |
| 02 | Bedside clinical case taking | |
| | Long Case | - 20 Marks |
| | Short Case | - 10 Marks |
| 03 | Procedures | -15 Marks |
| 04 | Identification of instruments, X-ray etc & 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 Related matter from all the samhitas and their commentaries.
- 2 Prasuti tantra evum stree roga by prof Tewari P V
- 3 Concepts of gynecology Dr Nirmala G Joshi.
- 4 Prasuti Tantra Prof. M. Dwivedi
- 5 Stree roga vigyan - Dr VNK Usha
- 6 Navya prasuti Vigyan Dr Pooja Bharadwaja
- 7 Text book of gynaecology-Berek and Novak.
- 8 Text book of obstetrics- Williams
- 9 Text book of obstetrics- D C Dutta
- 10 Text book of gynaecology - D C Dutta
- 11 Gabbe's normal and problem pregnancies.
- 12 Human embryology by Sandler.
- 13 Jeffcoat's principles of gynaecology
- 14 Te linde's gynaecological surgery.



(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

**16.SHALYA TANTRA – SAMANYA
(General Surgery)**

PAPER-II

THEORY- 100 marks

PART-A

50 marks

- 01 Etymology and definition of Shalya Tantra.
- 02 Scope and importance of Shalya Tantra
- 03 Study of Sushruta Samhita Sutra Sthana.
- 04 Study of modern surgical clinical methodology.
- 05 Applied anatomy, physiology and surgical pathology of common surgical conditions including relevant Ayurvedic aspect.
- 06 Applicability of Shat Kriyakala in the pathogenesis of surgical diseases.
- 07 Applicability of Prakriti in understanding the causes and role of treatment in surgical diseases.
- 08 Applicability of basic principles of Ayurveda in Rogi Pariksha (Trividha, Shadvidha, Ashtavidha and Dashavidha Pariksha) and latest investigations.
- 09 Concept of Rakta according to Sushruta.
- 10 Introduction of clinical and diagnostic methods in Shalya Tantra - X-rays, U.S.G., Endoscopies (for diagnostic and treatment purposes), MRI, CAT scanning and other recent diagnostic tools.
- 11 Concept and applicability of Sadhya-Asadhya (Prognosis) - Arishtha lakshana.
- 12 Knowledge of life saving drugs.
- 13 Emergency conditions and its management
- 14 Diagnosis and management of Pranashtha Shalya.

PART-B

50 marks

- 01 Yantra and Shastra – Surgical Instruments - Ancient and recent advances.
- 02 Sterilization – methods and types.
- 03 Basic knowledge of Sangyahan – Anaesthesia - Types, methods, indications, contraindications, complications and its management.
- 04 Concept of Trividha Karma – Purva, Pradhana and Pashchat.
- 05 Ashtavidha Shastra Karmas.
- 06 Bandhana Karma – Ancient and recent advances.
- 07 Kshara Karma – Introduction, types, method of various preparations like Kshara, Kshara Varti, Kshara Pichu and applications.
- 08 Kshara Sutra – Method of preparation, standardization and applications
- 09 Agnikarma – Introduction, types and applications.
- 10 Raktamokshana – Introduction, types and applications.
- 11 Application of Panchakarma therapy in surgical practice.
- 12 Scope of Pathya-Apathya in the management of surgical diseases.

PRACTICAL

100 marks

Contents:

- 01 Hospital duties in OPD, IPD, OT and casualty
- 02 Case record – 25 cases
- 03 Surgical cases - observation/performing- 10 cases
- 04 Knowledge of instruments required in surgical practices.
- 05 Ayurvedic diagnostic and therapeutic procedures.
- 06 Fluid therapy and blood transfusion.
- 07 Contraception and sterilizations.
- 08 Pre-operative, operative and post operative procedures.

Distribution of marks (Practical) :

- | | | |
|----|-------------------------------|------------|
| 01 | Case Record | -20 Marks |
| 02 | Bedside clinical case taking- | |
| | a) Long Case | - 20 Marks |
| | b) Short Case | - 10 Marks |
| | c) Kriya kalpa procedure | -15 Marks |
| 03 | Medical procedures | -15 Marks |
| 04 | 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:

- | | | |
|----|---|--|
| 01 | Sushruta Samhita | - |
| 02 | Ashtanga Sangraha | - |
| 03 | Ashtanga Hridaya | - |
| 04 | Charaka Samhita | - |
| 05 | The Surgical instruments of the Hindus | - Girindranath Mukhopadhyaya |
| 06 | Shalya Tantra Samuchchaya | - Pandit Ramadesh Sharma |
| 07 | Shalya Vigyan (Part 1-2) | - Dr. Surendra Kumar Sharma |
| 08 | Shalya Samanvaya (Part 1-2) | - Vd. Anantaram Sharma |
| 09 | Shalya Pradeepika | - Dr. Mukund Swaroop Verma |
| 10 | Soushruti | - Dr. Ram Nath Dwivedi |
| 11 | Clinical Shalya Vigyan | - Dr. Akhilanand Sharma |
| 12 | Bhagna Chikitsa | - Dr. Prabhakar Janardhan Deshpande |
| 13 | Kshara sutra management in anorectal ailments | - Dr. S.K. Sharma, Dr. K.R.Sharma and Dr. Kulwant Singh. |
| 14 | Anorectal diseases in Ayurveda | - Dr. Sizoria and Dr. Praveen Kumar Chowdary. |
| 15 | Adhunika Shalya Chikitsa Siddanta | - Dr. Katil Narshingham Udupa |
| 16 | Agnikarma Technology Innovation | - Dr. P.D. Gupta |
| 17 | Shalya Tantra Ke Siddhant | - Dr. K.K.Takral |

| | | | |
|----|--|---|--|
| 18 | Recent advances in the management of Arshas /Haemorrhoids | - | Dr. P. Hemantha Kumar |
| 19 | Arsha Evum Bhagander Mein sutra Avachara | - | Vd. Kanak Prasad Vyas |
| 20 | Recent advances in Kshara Sutra | - | Dr. M. Bhaskar Rao |
| 21 | Leech application in Ayurveda | - | Dr. M. Bhaskar Rao |
| 22 | Kshara Sutra | - | Dr. S.N.Pathak |
| 23 | Shalya Shalakyta Tantra | - | Vd. S.G. Joshi |
| 24 | Surgical ethics of Ayurveda | - | Dr. D.N. Pande |
| 25 | Text book of Surgery | - | Sabistan |
| 26 | Operative Surgery | - | Rob and smith |
| 27 | Bailey and Love's Short Practice of Surge | - | Norman.S. Williams, Charles.V. Mann and R.C.G. Russell |
| 28 | Fractures and Joint Injuries | - | Watson-Jones |
| 29 | Text books of Operative Surgery | - | Farquharsons' |
| 30 | Principles of Surgery | - | Schwartz |
| 31 | Emergency Surgery | - | Hamilton Bailey's |
| 32 | Surgical pathology | - | Willing Worth |
| 33 | Clinical methods in surgery | - | S. Das |
| 34 | Textbook of Operative Surgery | - | S. Das |
| 35 | Shalya Vigyan (Sachitra) | - | Anantram Sharma |
| 36 | Anushastra Karma | - | Dr. D.N. Pande |
| 37 | Concept of Vrana is Ayurveda | - | Dr. Lakshman Singh |
| 38 | Significance for Poorva Karma in Surgical Patient | - | Dr. Lakshman Singh |
| 39 | Sangyahan Prakash | - | Dr. D.N. Pande |
| 40 | A concise Text Book of Surgery | - | S. Das |
| 41 | A manual on Clinical Surgery | - | S. Das |
| 42 | A System of Surgical Diagnosis | - | T.N. Patel |
| 43 | A Practical Guide to Operative Surgery | - | S. Das |
| 44 | Drugs and Equipment for Anaesthesia | - | Arun kumar |
| 45 | Manual of Surgical Instruments | - | M.M. Kapur |
| 46 | Ward Procedures | - | Patel Mansukh. B |
| 47 | Recent trends in the management of Arshas / Haemorrhoids | - | Dr. P. Hemantha Kumar |
| 48 | Primary Anaesthesia | - | Maurice King |
| 49 | Synopsis of Anaesthesia | - | Lee |
| 50 | Clinical Anatomy/ Surgical Anatomy | - | John E.Skandalakis |
| 51 | Surgical Instruments of the Hindus | - | Girindharnath Mukopadyay |
| 52 | Outline of Orthopedics | - | John Crawford Adams and David Hamblen. L |
| 53 | Outline of Fracture | - | John Crawford Adams |
| 54 | Recent trends in the management of Bhagandara / Fistula-in-ano | - | Dr. P. Hemantha Kumar |
| 55 | Principles and Practice of Agnikarma | - | Dr. Anand Kumar and Dr. Kanchan Shekokar. |
| 56 | Manipal Manual of Surgery | - | Dr. Rajgopal Shenoy |

M.D./M.S.-AYURVEDA PRELIMINARY
PAPER-I
RESEARCH METHODOLOGY AND MEDICAL STATISTICS
PART-A
RESEARCH METHODOLOGY

- 1 **Introduction to Research**
Definition of the term research
Definition of the term anusandhan
Need of research in the field of Ayurveda

- 2 **General guidelines and steps in the research process**
Selection of the research problem
Literature review: different methods (including computer database) with their advantages and limitations
Defining research problem and formulation of hypothesis
Defining general and specific objectives
Research design: observational and interventional, descriptive and analytical, preclinical and clinical, qualitative and quantitative
Sample design
Collection of the data
Analysis of data.
Generalization and interpretation, evaluation and assessment of hypothesis.
Ethical aspects related to human and animal experimentation.
Information about Institutional Ethics Committee (IEC) and Animal Ethics Committee (AEC) and their functions. Procedure to obtain clearance from respective committees, including filling up of the consent forms and information sheets and publication ethics.

- 3 **Preparation of research proposals in different disciplines for submission to funding agencies taking EMR-AYUSH scheme as a model.**

4. **Scientific writing and publication skills.**
Familiarization with publication guidelines- Journal specific and CONSORT guidelines.
Different types of referencing and bibliography.
Thesis/Dissertation: contents and structure
Research articles structuring: Introduction, Methods, Results and Discussions (IMRAD)

- 5 **Classical Methods of Research.**
Concept of Pratyakshadi Pramana Pariksha, their types and application for Research in Ayurveda.
Dravya-, Guna-, Karma-Parikshana Paddhati
Aushadhi-yog Parikshana Paddhati
Swastha, Atura Pariksha Paddhati
Dashvidha Parikshya Bhava
Tadvidya sambhasha, vadmarga and tantrayukti

- 6 **Comparison between methods of research in Ayurveda (Pratigya, Hetu, Udaharana, Upanaya, Nigaman) and contemporary methods in health sciences.**

7. Different fields of Research in Ayurveda

Fundamental research on concepts of Ayurveda
Panchamahabhuta and tridosha.
Concepts of rasa, guna, virya, vipak, prabhav and karma
Concept of prakriti-saradi bhava, ojas, srotas, agni, aam and koshtha.

8. Literary Research-

Introduction to manuscriptology: Definition and scope. Collection, conservation, cataloguing.
Data mining techniques, searching methods for new literature; search of new concepts in the available literature.
Methods for searching internal and external evidences about authors, concepts and development of particular body of knowledge.

9. Drug Research (Laboratory-based)- Basic knowledge of the following:

Drug sources: plant, animal and mineral. Methods of drug identification.

Quality control and standardization aspects: Basic knowledge of Pharmacopoeial standards and parameters as set by Ayurvedic Pharmacopoeia of India.

Information on WHO guidelines for standardization of herbal preparations. Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP).

10. Safety aspects: Protocols for assessing acute, sub-acute and chronic toxicity studies. Familiarization with AYUSH guidelines (Rule 170), CDCSO and OECD guidelines.

11. Introduction to latest Trends in Drug Discovery and Drug Development

-Brief information on the traditional drug discovery process
-Brief information on the latest trends in the Drug Discovery process through employment of rational approach techniques; anti-sense approach, use of micro and macro-arrays, cell culture based assays, use of concepts of systems biology and network physiology
-Brief introduction to the process of Drug development

12. Clinical research:

Introduction to Clinical Research Methodology identifying the priority areas of Ayurveda

Basic knowledge of the following:-

Observational and Interventional studies

Descriptive & Analytical studies

Longitudinal & Cross sectional studies

Prospective & Retrospectives studies

Cohort studies

Randomized Controlled Trials (RCT) & their types

Single-case design, case control studies, ethnographic studies, black box design, cross-over design, factorial design.

Errors and bias in research.

New concepts in clinical trial- Adaptive clinical trials/ Good clinical practices (GCP)

Phases of Clinical studies: 0,1,2,3, and 4.

Survey studies -

Methodology, types, utility and analysis of Qualitative Research methods. Concepts of in-depth interview and Focus Group Discussion.

13. Pharmacovigilance for ASU drugs. Need, scope and aims & objectives. National Pharmacovigilance Programme for ASU drugs.

14. Introduction to bioinformatics, scope of bioinformatics, role of computers in biology. Introduction to Data base- Pub med, Medlar and Scopus. Accession of databases.

15. Intellectual Property Rights- Different aspect and steps in patenting. Information on Traditional Knowledge Digital Library (TKDL).

MEDICAL STATISTICS

Teaching hours: 80

PG 1st Year Syallabus-3

- 1 **Definition of Statistics** : Concepts, relevance and general applications of Biostatistics in Ayurveda
- 2 **Collection, classification, presentation, analysis and interpretation of data** (Definition, utility and methods)
- 3 **Scales of Measurements** - nominal, ordinal, interval and ratio scales.
Types of variables – Continuous, discrete, dependent and independent variables.
Type of series – Simple, Continuous and Discrete
- 4 **Measures of Central tendency** – Mean, Median and Mode.
- 5 **Variability**: Types and measures of variability – Range, Quartile deviation, Percentile, Mean deviation and Standard deviation
- 6 **Probability**: Definitions, types and laws of probability,
- 7 **Normal distribution**: Concept and Properties, Sampling distribution, Standard Error, Confidence Interval and its application in interpretation of results and normal probability curve.
- 8 **Fundamentals of testing of hypotheses**:
Null and alternate hypotheses, type I and type 2 errors.
Tests of significance: Parametric and Non-Parametric tests, level of significance and power of the test, 'P' value and its interpretation, statistical significance and clinical significance
- 9 **Univariate analysis of categorical data**:
Confidence interval of incidence and prevalence, Odds ratio, relative risk and Risk difference, and their confidence intervals
- 10 **Parametric tests**: 'Z' test, Student's 't' test: paired and unpaired, 'F' test, Analysis of variance (ANOVA) test, repeated measures analysis of variance
- 11 **Non parametric methods**: Chi-square test, Fisher's exact test, McNemar's test, Wilcoxon test, Mann-Whitney U test, Kruskal – Wallis with relevant post hoc tests (Dunn)
- 12 **Correlation and regression analysis**:
Concept, properties, computation and applications of correlation, Simple linear correlation, Karl Pearson's correlation co-efficient, Spearman's rank correlation.
Regression- simple and multiple.
- 13 **Sampling and Sample size computation for Ayurvedic research**:
Population and sample. Advantages of sampling, Random (Probability) and non random (Non-probability) sampling. Merits of random sampling. Random sampling methods- simple random, stratified, systematic, cluster and multiphase sampling. Concept, logic and requirement of sample size computation, computation of sample size for comparing two means, two proportions, estimating mean and proportions.
- 14 **Vital statistics and Demography**: computation and applications - Rate, Ratio, Proportion, Mortality and fertility rates, Attack rate and hospital-related statistics
- 15 **Familiarization with the use of Statistical software** like SPSS/Graph Pad

PRACTICAL

100 marks

I. RESEARCH METHODOLOGY

Teaching hours 120

PG 1st Year Syallabus-4

PRACTICAL NAME

- 1 **Pharmaceutical Chemistry**
Familiarization and demonstration of common lab instruments for carrying out analysis as per API
- 2 **Awareness of Chromatographic Techniques**
Demonstration or Video clips of following:
Thin-layer chromatography (TLC).
Column chromatography (CC).
Flash chromatography (FC)
High-performance thin-layer chromatography (HPTLC)
High Performance (Pressure) Liquid Chromatography (HPLC)
Gas Chromatography (GC, GLC)
- 4 **Pharmacognosy**
Familiarization and Demonstration of different techniques related to:-
Drug administration techniques- oral and parenteral.
Blood collection by orbital plexuses puncturing.
Techniques of anesthesia and euthanasia.
Information about different types of laboratory animals used in experimental research
Drug identification as per API including organoleptic evaluation
- 5 **Pharmacology and toxicology**
Familiarization and demonstration of techniques related to pharmacology and toxicology
- 6 **Biochemistry (Clinical)**
Familiarization and demonstration of techniques related to basic instruments used in a clinical biochemistry laboratory – semi and fully automated clinical analyzers, electrolyte analyzer, ELISA-techniques, nephelometry.
Demonstration of blood sugar estimation, lipid profiles, kidney function test, liver function test.
HbA1, cystatin and microalbumin estimation by nephelometry or other suitable techniques.
Interpretation of the results obtained in the light of the data on normal values.
- 7 **Clinical Pathology**
Familiarization and demonstration of techniques related to basic and advanced instruments used in a basic clinical pathology lab. Auto cell counter, urine analyzer, ESR, microscopic examination of urine.
- 8 **Imaging Sciences**
Familiarization and demonstration of techniques related to the imaging techniques.
Video film demonstration of CT-Scan, MRI-scan and PET-scan.
- 9 **Clinical protocol development**

II. MEDICAL STATISTICS**Practical hours:20****Statistical exercise of examples from Topic number 4, 5, 8-12, 14, 15.****Records to be prepared.****Distribution of marks (practical):**

| | |
|---|------------|
| Instrumental spotting test | – 20 marks |
| Clinical protocol writing exercise on a given problem | – 20 marks |
| Records: | |
| Research methodology | -10 Mark |
| Medical statistics | -10 marks |
| Viva- Voce | -40 Marks |

REFERENCE BOOKS:-**Pharmacognosy:**

Aushotosh Kar “Pharmacognosy & Pharmacobiotechnology” New Age International Publisher. Latest Edition. New Delhi.

Drug Survey by Mayaram Uniyal

Fahn A (1981). Plant Anatomy 3rd Edition Pergamon Press, Oxford

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Tyler V C., Brady, L R., and Robers J E., Pharmacognosy, Lea and Febiger, Philadelphia.

Tyler VE Jr and Schwarting AE., Experimental Pharmacognosy, Burgess Pub. Co, Minneaplis, Minnesota.

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WHO monographs on selected medicinal plants (1999)—Vol. 1. 1.Plants, Medicinal 2.Herbs 3.Traditional medicine. ISBN 92 4 154517 8.

WHO Geneva.

Pharmaceutical chemistry, quality control and drug standardization:

Ayurvedic Pharmacopoeia of India. Part I- volume 1 to 8 and Part II- volume 1to 3. Ministry of Health and Family Welfare. Controller of Publication. Govt of India. New Delhi.

Brain, KR and Turner, TD. (1975). The Practical Evaluation Phytopharmaceuticals. Wright Scientechnica, Bristol.

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Stahl E., Thin Layer Chromatography - A Laboratory Handbook, Springer Verlag, Berlin.

Sukhdev Swami Handa, Suman Preet Singh Khanuja, Gennaro Longo and Dev Dutt Rakesh (2008). Extraction Technologies for Medicinal and Aromatic Plants -INTERNATIONAL CENTRE FOR SCIENCE AND HIGH TECHNOLOGY- Trieste,

Biochemistry and Laboratory techniques:

Asokan P. (2003) Analytical Biochemistry, China publications,
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Kanai L.Mukherjee. Clinical Pathology:,Medical Laboratory Technology Vol. I.Tata McGrawHill 1996, New Delhi.
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Clinical Biochemistry -Sabitri Sanyal, Clinical Pathology, B.I.Churchill Livingstone (P) Ltd, New Delhi.2000.
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Text book of Radiology and Imaging, Vol-1, David Sultan, 7th Edition. 2003.

PG 1st Year Syallabus-7

Research methodology:

Alley, Michael. The craft of scientific writing. Englewood Cliffs. N.N. Prentice 1987.
Ayurvediya Anusandhan Paddhati – P.V. Sharma
Altick and Fenstermaker. (2007).*The Art of Literary Research*. 4th ed. W. W. Norton. Castle, Gregory. *Blackwell Guide to Literary Theory*. Blackwells,
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Cooray P.G. Guide to scientific and technical writing.
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Kumar, R. 2005. *Research Methodology: a Step-by-Step Guide for Beginners, 2nd ed*. Thousand Oaks, CA, London: Sage Publications.
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Relevant portions of Ayurvedic Samhitas and other texts

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12- Jaju B.P.: Pharmacological Practical Exercise Book, *Jaypee Brothers, New Delhi*.

- 13- Kulkarni S.K.: Hand Book of Experimental Pharmacology, *Vallabh Prakashan, New Delhi*
14- Ravindran R.: X-Pharm (Software), Indian Journal of Pharmacology, *JIPMER, Pondicherry*.

PG 1st Year Syallabus-8

Biotechnology and Bio-informatics:

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PG 1st Year Syallabus-9

Medical Statistics:

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(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

21. SHALAKYA- DANTA AVUM MUKHA ROGA
(Dentistry and Oral Disease)

PAPER-II

THEORY- 100 marks

PART-A

50 marks

- 01 Shalaky Tantra Parichaya, Itihas avum Pradhanyam
- 02 Mukhasharir.
- 03 Study of Dosha, Dhatu, Mala and Srotas in context to Danta and Mukha Roga.
- 04 Agropaharaniya in Danta and Mukha Roga incorporating sterilization, Sangyahanana and diagnostic and therapeutic pharmacological agents.
- 05 Vrana Siddhanta-Trividha Shopha, Shuddha-Dushta Vrana, Vrana Bandha and Vranitopasana in relation to Danta and Mukha Roga.
- 06 Swasthavritta related to Danta and Mukha Roga.
- 07 Chaturvidha Chikitsopaya (Bheshaja-Shastra-Kshara-Agni) Siddhanta and Raktamokshana related to Danta and Mukha Roga.
- 08 Applied knowledge of various Kriyakalpa and other therapeutic procedures related to Danta and Mukha Roga.
- 09 Role of Panchkarma in Danta and Mukha Roga.
- 10 Mukha and Danta Chikitsopayogi Aushadha Kalpana Parijnanam e.g. Dashana Samskara Manjana, Shwetamanjana, Vajradanta Manjana, Khadiradi Vati, Irimedadi Taila, Peetaka Churna, Kalaka Churna, Nimbadi Churna and Bhadramustadi Vati.

PART-B

50 marks

- 01 Applied orodental anatomy and physiology.
- 02 Clinical methods adopted in orodental practices.
- 03 Knowledge of advanced diagnostic techniques, equipments and tests of importance in orodental practices with their interpretations.
- 04 Classification, aetiopathogenesis, clinical features and therapeutics of Oshtha, Danta, Dantamula, Jihva, Talu and Sarvasar Mukharogas in the light of modern knowledge.
- 05 Basics of Sandhana Vidhi in Mukha and Danta Roga.
- 06 Applied aspect of Dysphagia, Manyastambha, Hanumoksha, Apachi (Cervical Lymphadenopathy) and Herpes.
- 07 Handling of biomedical waste.

PRACTICAL

100 marks

Contents:

- 01 Clinical posting in OPD/IPD/Kriyakalpa Kaksha & OT
- 02 Clinical case presentation (10 cases)
- 03 Case record (20 cases)
- 04 Hands on training in Kriyakalpa

Distribution of marks (Practical) :

- | | | |
|----|---|------------|
| 01 | Case Record | -20 Marks |
| 02 | Bed side examination | |
| | a) Long Case | - 20 Marks |
| | b) Short Case | - 10 Marks |
| | c) Kriya kalpa procedure | -15 Marks |
| 03 | Identification of specimens, radiograph and instruments | -15 Marks |
| 04 | 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:

- | | | |
|----|--|----------------------------------|
| 01 | Sushrut Samhita | - Dalhana |
| 02 | Useful Portion of Charak Samhita-Ashtang Samgraha | - Ashtang Hridaya |
| 03 | Useful portion of Laghutrayi related to Danta and Mukha Roga | - |
| 04 | Shalaky Vijnanam | - Ravindra Chandra Chaudhary |
| 05 | Nimi Tantra | - Ramanath Dwivedi |
| 06 | Dental Anatomy Histology | - Dr. S.I. Bhalajhi |
| 07 | Essentials of Preventive and Community Dentistry | - Dr. Soben Peter |
| 08 | Complete Denture Prosthodontics | - Dr. J.J. Manappallil |
| 09 | Orthodontics the Art and Science | - Dr. S.I. Bhalajhi |
| 10 | Text book of Pediatric Dentistry | - Dr. B.R.R. Varma |
| 11 | Anatomy for Dental Students | - Inderveer Singh |
| 12 | Clinical Periodontology | - Carranza , Newman |
| 13 | Operative Dentistry | - M A Marzouk |
| 14 | Oral and maxillofacial surgery secrets | - A.Omar Abubaker |
| 15 | Killey and Kay's Outline of Oral Surgery | - Girdon R Seward |
| 16 | Clinical Dentistry | - Ivor G. Chestnut , John Gibson |
| 17 | Synopsis of Oral Pathology | - S N Bhaskar |
| 18 | Oral Pathology | - Stone |



(From Academic Year 2012-13 & onwards)

Syllabus for MD/MS (Ayurved) Preliminary Examination

**22. SHALAKYA- SHIRO-NASA- KARNA- AVUM KANTHA ROGA
(ENT & HEAD & Neck Disease)**

PAPER-II

THEORY- 100 marks

PART-A

50 marks

- 01 Shalakyta Tantra Parichaya, Itihas and 'Pradhanya'. Establishment of 'superiority of Shiras' among all the organs. Determination and importance of the verse 'Nasa hi Shirso Dvaram'.
- 02 Shiro-Nasa- Karna- Avum Kantha Shariram and knowledge of related Marmas.
- 03 Study of Dosh- Dhatu-Mala and Srotas in context of Shiro-Nasa- Karna- Avum Kantha Chikitsa.
- 04 Agropaharaniya in Shiro-Nasa- Karna- Avum Kantha Chikitsa including sterilization and anesthesia.
- 05 Basic pharmacology of common modern drugs used in diagnostic and therapeutic procedures related to Shiro-Nasa- Karna- Evum Kantha Chikitsa.
- 06 Basic pharmacology of common modern drugs used in diagnostic and therapeutic procedures related to Shiro-Nasa- Karna- Evum Kantha Chikitsa.
- 07 Swasthavritta related to Shiro-Nasa- Karna- Avum Kantha.
- 08 Chaturvidha Chikitsopaya (Bsheshaja- Shastra-Kshar -Agni) and Raktamokshan related to Shiro-Nasa- Karna- Evum Kantha Chikitsa
- 09 Applied knowledge of various therapeutic modalities like Shirobasti, Shirodhara, Shirovirechana, Nasya, Karna Pooran, Karna Dhoopan, Kaval, Gandusha etc.
- 10 Role of Panchkarma in Shiro-Nasa- Karna- Avum Kantha Chikitsa.

PART-B

50 marks

- 01 **Shiras-** Applied anatomy and physiology of skull and intracranial contents. Clinical methods and knowledge of common diagnostic equipments, procedures and their interpretation. Classification, etiopathogenesis, clinical features, prognostic considerations and therapeutics of Shiras and Kapaal Rogas in the light of modern knowledge.
- 02 **Nasa** - Applied anatomy and physiology of nose and paranasal sinuses. Clinical methods and knowledge of common nasal diagnostic equipments, procedures and their interpretation. Classification, etiopathogenesis, clinical features, prognostic considerations and therapeutics of Nasa Rogas in the light of modern knowledge.
- 03 **Karna-** Applied anatomy and Physiology of ear and related structures. Clinical methods and knowledge of common aural diagnostic equipments, procedures and their interpretation. Classification, etiopathogenesis, clinical features, prognostic considerations and therapeutics of Karna Rogas in the light of modern knowledge.
- 04 **Kantha** - Applied anatomy and physiology of throat. Clinical methods and knowledge of common pharyngeal and laryngeal diagnostic equipments, procedures and their interpretation. Classification, etiopathogenesis, clinical features, prognostic considerations and therapeutics of Kanthagata Rogas in the light of modern knowledge.

PRACTICAL

100 marks

Contents:

- 01 Clinical posting in OPD/IPD/Kriyakalpa Kaksha & OT
- 02 Clinical case presentation (10 cases)
- 03 Case record (20 cases)
- 04 Hands on training in Kriyakalpa

Distribution of marks (Practical) :

- | | | |
|----|---|------------|
| 01 | Case Record | -20 Marks |
| 02 | Bed side examination | |
| | a) Long Case | - 20 Marks |
| | b) Short Case | - 10 Marks |
| | c) Kriya kalpa procedure | -15 Marks |
| 03 | Identification of specimens and instruments | -15 Marks |
| 04 | 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:

- 01 Sushrut Samhita
- 02 Charak Samhita
- 03 Ashtang Hridaya
- 04 Ashtang Samgraha
- 05 Laghutrayi
- 06 Modern books related to ENT disorder
- 07 Diseases of Nose Throat and Ear - Bhargav Shah
- 08 Diseases of Nose Throat and Ear, Head and Neck EB Edr.
- 09 A Textbook of otorhinololaryngology - Scott Browns editions
- 10 Text book of Ear Nose Throat diseases – Dhingra
- 11 Textbook on ENT – Mohd. Maqbool
- 12 Logan Turner's book on ENT
- 13 Ballengers text book of ENT
- 14 Kumin's text book of ENT
- 15 Rob Smith's book of ENT surgery
- 16 Paprella's book of ENT
- 17 Hazarika's text book on ENT
- 18 Books on examination of ENT
- 19 Audiology Anirwan Biswas
- 20 Kurt's Audiology
- 21 Books on Speech therap
