



MAHARASHTRA UNIVERSITY OF HEALTH SCIENCES, NASHIK

(From Academic Year 2010-11 & onwards)

Syllabus for MD (Ayurved) Final Examination

SHALYA TANTRA SAMANYA-GENERAL SURGERY

PAPER - I

Shalya Tantra Siddhant – Fundamentals of Surgery

1. Etymology and Definition of Shalya Tantra. (Utpatti, Parampara, Vikas)
2. Scope of Shalya Tantra and its importance.
3. Descriptions of Dosha, Dhatu and Mala Vigyan.
4. Significance of 'Rakta' as 4th Dosha along with description & importance of tridosha
5. Yantras and Shastras – ancient and recent. (Name, types, Uses, Size, Gundoshas, Payna....)
6. Trividha Karma – 1) Purva – Sterilisation (Pt, doctor, O.T. Instru's and Importance.)
2) Pradhan
3) Pashchat Karma
7. Asepsis and Antisepsis.
8. Nirjantukarana – Sterilization – Methods, Types and O.T. fumigation
9. Surgical infections – Sepsis, tetanus, hepatitis, HIV-AIDS, Gangrene...etc.
10. Ashtavidha Shastra Karma – Critical knowledge and their application in surgical practice.
11. Sadyovrana shuddhi- seevanadi chikitsa upakarmas, suturing materials, appropriate use of sutures, drains, prosthetic, grafts and surgical implants.
12. Concept of Marma in Shalya Tantra.
13. Marmaghat lakshanani and chikitsa concept of shock, Its varieties and management.
14. Rakta srava - Types & clinical features. treatment, complications. Amrut jaladi suchibharanam Raktadanam. (I.V/electroly's) Concept of haemostasis, Raktastambhana – Haemostasis.
15. Concept of Bandana – bandaging techniques.
16. Agantu vrana –Sadyovrana –Nidaan, Prakarna (Types) clinical features, Dushti, koth, upadrava (Compliance)
17. Vranasopha, Vidradhi and Prameha Pidaka.
18. Arbuda and Granthi – Types, classification clinical features treatment
19. Gulma and Udararog
20. Kshudra Rog.
21. Fluid, electrolyte, Acid Base Balance and Nutrition
 - a. Introduction to physiology of fluids and electrolytes

- b. Dehydration and over hydration,
 - c. Specific electrolyte losses and symptomatology and management of Acidosis, Alkalosis and Acid balance.
 - d. Electrolyte changes are specific diseases like pyloric stenosis, intestinal obstruction and anuria.
 - e. Various replacement fluids in surgery, mode of administration and complications.
 - f. Nutrition – pre-operative, post-operative and intravenous alimentation.
22. Blood Transfusion – Indications, blood groups, components, compatibility and complications with management.
23. Knowledge of antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.
24. Knowledge of imaging and diagnostic techniques – X-ray, Ultra Sonography, CAT scan, MRI and recent advances.

PAPER - II
Vishista Shalya Karma

1. Yogya - Practical and Experimental training
 - a. Vishikhanupravesha – Duties of house surgeon knowledge of ward procedures like catheterization naso gastric intubation, venesection, FNAC, dressing wound care, etc.
 - b. Practice of surgical procedures on different models.
 - c. Description of Yogya mentioned in texts.
 - d. Specific knowledge of surgical procedures in different diseases.

2. Vrana – Wound :- Prachin and arvachin option
 - a. Management of Nija Vrana, Agantuja Vrana, Dushta Vrana and Nadi Vrana.
 - b. Vrana Chikitsa – Pathya-apathya and Shashti Upakramas
 - c. Varieties and management of Dagdha Vrana - Burn and scalds. Diabetic wound and its management
 - d. Gangrene - management.
 - Mutra Rog – Urological diseases.
 - a) Vrukka vikara
 - b) Gavini vikara
 - c) Basti vikara
 - d) Medhra vikara – Penis:cong, traumatic, inflam'neoplastic dis.

Anatomical and physiological knowledge of kidney, ureter, urinary bladder, prostate, seminal vesicles, urethra and penis.

Investigations of Mutravaha Srotas – urinary tract.

Complete knowledge of pathogenesis, causes and surgical Procedures of Ashmari - urinary calculi and other disorders.

Specific knowledge of swelling, abscess, tumor, benign

Hypertrophy of prostate, Mutraghata, Mutrakruccha and

Traumatic injury of urinary system their causes, pathogenesis and Management.

Shukravaha srotovikara-Ashmari, Shotha, Granthi, Shukranadi chedanam.

Vrushan vikara vrushanvrudhi, Mutra vrudhi

Penis – Congenital, traumatic, inflammatory and neoplastic Disorders.

Asthi rog –Orthopaedics/Marma chikitsa. Anatomy and physiology of bone. Diseases of bone and joints – Infection, congenital, exogenous diseases, generalized diseases, abscess, osteoporosis,

osteomyelitis, tumours of bones and chronic joint diseases. Aetiopathogenesis, treatment along with surgical procedures of Bhagna - fracture, Sandimoksha - dislocation and bone transplantation.

Diseases of Spine, vertebral column and spinal cord. Sandhana Karma – Plastic reconstructive and cosmetic surgery. Fundamentals of Sandhana Karma.

- e. Karna Sandhana – Earplasty
- f. Nasa Sandhana – Rhinoplasty
- g. Ostasandhana – Cheiloplasty
- h. Skin grafting
- i. Plastic surgery of urethra, penis, testicles, vasdeference and scrotum.

PAPER - III

Shalya Vigyaniya Nidan – Operative surgery

1. Fundamentals of modern surgery and treatment of surgical disorders including surgical anatomy, physiology and pathology.
2. Diagnosis and Surgical treatment of head injury, thoracic trauma, and abdominal trauma.
3. Diagnosis and Surgical management of neck disorders e.g. salivary glands, thyroid etc.
4. Diagnosis and Surgical management of breast diseases.
5. Diagnosis and surgical measures of diseases of Gastrointestinal system- stomach, pancreas, peritoneum, omentum, mesentery, retroperitoneal space, small intestine, large intestine and vermiform appendix
6. Diagnosis and surgical management of proctological disorders.
7. Diagnosis and surgical measures of diseases of Hepatobiliary system - liver, gall bladder, bile ducts and spleen.
8. Diagnosis and surgical management of diseases of urogenital system.
9. Diagnosis and surgical management of traumatic disorders.
10. Diagnosis and surgical measures for disorders of vein, artery, ligaments, joints and muscles.
11. Diagnosis and surgical management of diseases of scrotum and testis. – Hydrocele, ectopic testis, undescended testis etc.
12. Diagnosis and surgical management of Hernias – Inguinal, femoral, umbilical, incisional, abdominal wall and other hernias.
13. Endoscopic procedures - Gastroduodenoscopy, Sigmoidoscopy, Colonoscopy etc.
14. Diagnostic and therapeutic laparoscopy.
15. Anaesthesia - Definition, Types, anaesthetic agents, indications, contraindications, procedures, complications and management.

PAPER -IV

Shalya Vangmaya – Shalya literature, research and development and also modern texts and journals related to advance modalities.

1. Thorough study of the text including portions of Brihat treya and Laghu treya related to surgical aspects.
2. Knowledge and importance of Surgical audit.
3. Value of research and teaching in surgery.
4. Medico legal issues - Understanding the implications of acts of omission and commission in practice. Issues regarding Consumer Protection Act, medical profession, national health policy - Implications in a medico-legal case like accidents, assaults etc.
5. Surgical ethics including Informed consent.

6. Anushalya Karma – Parasurgical procedures Kshara Karma, Kshara Sutra, Agnikarma and Raktamoskhana.

Reference Books

1. Sushrut Samhita with Dalhana Commentary
2. Sushrut with Ghanekar Commentary
3. Related matters of Astanga Sangraha, Astanga Hridaya, Madhava Nidan etc.
4. The Surgical instruments of the Hindus – Girindranath Mukhopadhyaya.
5. Shalya Tantra Samuchchaya – Pandit Ramadesh Sharma
6. Shalya Vijyan (Part 1-2) – Dr. Surendra Kumar Sharma
7. Shalya Samanvaya (Part 1-2) – Vd. Anantaram Sharma
8. Shalya Pradipika – Dr. Mukund Swarup Verma
9. Soushruti – Dr. Ram Nath Dwivedi
10. Clinical Shalya Vigyan - Dr. Akhilanand Sharma
11. Bhagna Chikitsa – Dr. Prabhakar Janardhan Deshpande
12. Kshara sutra management in anorectal ailments – Dr. S.K. Sharma, Dr.K.R.Sharma and Dr. Kulwant singh
13. Anorectal diseases in Ayurveda – Dr.Sizoria & Dr. Praveen Kumar
14. Adhunika Shalya Chikitsa Siddanta– Dr.Katil Narshingham Udupa
15. Agnikarma Technology Inovation – Dr. P.D. Gupta
16. Shalya tantra Ke Sidhant – Dr. K.K.Takral
17. Surgical Ethics in Ayurveda – Dr. Singhal
18. Susruta's Contribution to Surgery – Dr. S. Sankaran
19. Recent advances in the mangement of Arshas / Haemorrhoids – Dr. P. Hemantha Kumar
20. Arsha Evam Bhagander Men Sutravacharan – Vd. Kanak Prasad Vyas.
21. Kshara Sutra – Dr. S.N.Pathak
22. Surgical ethics of Ayurveda – Dr. S. Sankaran
23. Anushastra Karma – Dr. D.N. Pande
24. Concept of Vrana is Ayurveda – Dr. Lakshman Singh
25. Significance for Purva Karma in Surgical Patient – Dr. Lakshman Singh
26. Sangyahan Prakash – Dr. D.N.Pande
27. Text book of Surgery – Sabistan
28. Operative Surgery – Rob and smith
29. Fractures and Joint Injuries - Watson-Jones
30. Text books of Operative Surgery - Farquharsons'
31. Principles of Surgery - Schwartz
32. Emergency Surgery -Hamilton Bailey's
33. Surgical pathology - Willing Worth
34. Clinical methods in surgery – S. Das
35. Methods of Surgical Procedure – S. Das
36. Short practice of surgery - Bailey and love's
37. A concise text book of surgery – S. Das
38. A manual on clinical surgery – S. Das
39. A system of surgical diagnosis – Prof. Tribhuvan. N. Patel
40. A practical guide to operative surgery - S. Das
41. Text book of Surgery – Surgeons Association of India
42. Clinical Anatomy/ Surgical Anatomy – Snell
43. Essential P.G. Surgeon – Filinge, Davice
44. Outline of Orthopaedics – J.C.Adams
45. Outline of Fracture – J.C. Adams
46. Clinical orthopaedic diagnosis – Suresh Pandey

Scheme of Practicals

Duration: - 2 Years

प्रथम पत्रम्

प्रत्येक द्वितीय वर्ष सामान्य शल्यतंत्राच्या पदव्युत्तर विद्यार्थ्यांस शल्यतंत्राचे मौलिक सिध्दांत त्यांच्या प्रात्यक्षिक प्रयोगासहित (प्रथम पत्रम् सामान्य शल्यतंत्रम् नुसार) माहिती आणे आवश्यक आहे.

द्वितीय पत्रम्

१. योग्या (शस्त्रकर्माभ्यास तथा सरावार्थ)

विविध प्रतिकृतीची सरंचना करुन त्यावर योग्य ते शास्त्रोपदिष्ट शस्त्रकर्माचा सराव करणे आवश्यक आहे.

२. मुत्ररोगा	Obs.	Asst. (Minimum)	Independently (Under super vision of Guide)
वृक्कसंबंधीत शस्त्रकर्म (त्रिदधी ग्रंथी अर्बुद इ.) (Pylolithotomy)	५	२	०
मूत्रगवीनीसंबंधीत शस्त्रकर्म (Ureteric Claculus Removal)	५	३	०
बस्तिसंबंधीत शस्त्रकर्म (Bladder Surgeries)	४	२	०
अष्टीलासंबंधीत शस्त्रकर्म (Prostate surgeries)	४	२	०
मेदूसंबंधीत शस्त्रकर्म (Penile Diseases)			
- Circumcission	५	१०	२०
- Vasectomy	५	५	७
- Hypospadiasis Surgeries	५	२	२
- Epispadiasis Surgeries	५	२	२
- Urethral Dilatation	१०	५	१
३- अस्थि रोगा	Obs.	Asst.	Independently (Under super vision of Guide)
अस्थिभग्न चिकित्सांतर्गत आंछन (Reduction-Open & close)	५	१०	०
संस्थापयन (Immbolisation)	५	१०	१०
संधिमोक्षाचे संस्थापनयन (Joint Reduction-Open & close)	६	१०	०
अस्थित्रिदधी व नाडीपाक (Osteomyelitis with related Ulcers & Abscesses)	५	४	०
दृष्टअस्थिछेदन (Amputation)	५	५	१
अस्थि अर्बुदसंबंधीत शस्त्रकर्म (Bone Tumors surgeries)	५		
अस्थि प्रत्यारोपण (Bone Grafting)	४		
४. संधानकशल्यकर्म			

द्वितीय वर्ष सामान्य शल्यतंत्राच्या सर्व पदव्युत्तर विद्यार्थ्यांना संधानक शल्यकर्मासंबंधीत सर्व सिध्दांत पुढील शल्यकर्माच्या प्रात्यक्षिक अनुभवासह माहित असणे अत्यंत आवश्यक आहे.

	Obs.	Asst.	Independently (Under super vision of Guide)
कार्णसंधान (Auroplasty)	२	४	५
नाससंधान (Nasoplasty)	३	६	०
ओष्ठसंधान (Cleft-Palate Surgeries)	१०	५	०
मुत्रप्रसेकसंधान (Urethroplasty)	१५	१०	०
त्वक्रप्रत्यारोपण (All General skin grafting)	१५	१०	०
धमनी सिरा स्नायुसंधान (Vascular & tendon surgeries)	१५	१०	०५

तृतीय पत्रम्

तृतीय वर्ष सामान्य शल्यतंत्राच्या सर्व पदव्युत्तर विद्यार्थ्यांना आधुनिक शल्यतंत्राचे मौलिक सिध्दांत माहित असणे आवश्यक आहे. तसेच अधोलिखित व्याधीचे निदान नवीनतम विकासासहित शल्यचिकित्सा अवगत असावी.

	Obs.	Asst.	Independently (Under super vision of Guide)
महास्रोतोगत शस्त्रसाध्य व्याधी (All abdominal surgeries, explorative laprotomy)	१५	५	०
आंत्रपृच्छनिर्हण (Appendisectomy)	१५	१५	५
पित्ताशय निर्हरण (Cholecystectomy)	१०	५	०
यकृत प्लिहासंबंधीत ग्रंथी, अर्बुद निर्हरण, विद्रधी भेदन (Liver abscesses drainage)	१०	४	०
आंत्रसंबंधीत व्याधी (Intestine Disorders Surgeries e.g. Resection anostomosis etc.)	५	४	०
रोगविनिश्चयान्वेषणार्थ परिक्षणे (OGD Scopy, Colonoscopy, ERCP etc.)	१०	५	..
Diagnostic Laproscopic Surgeries	१५	१०	..

मुत्रवह - प्रजननसंस्थानगत रोगाचा शस्त्रचिकित्सेच्या द्वितीय पत्रात अंतर्भाव करण्यात आलेला आहे.

आघातज रोगाचे शल्यकर्म

शिरोभिघात (Head Injury)

उरोभिघात (Chest Trauma)

उदराभिघात (Abdominal Injury)

संबंधीत शस्त्रकर्म प्रत्येक पदव्युत्तर विद्यार्थ्यांने प्रत्यक्षत अवलोकीत व Assist केलेली असावीत.

दग्ध, स्तब्धता व धनुर्वात ह्या व्याधी व परिस्थिीच्या चिकित्साक्रमाचा प्रत्यक्ष अनुभव असणे आवश्यक आहे.

चतुर्थ पत्रम्

प्रत्येक सामान्य शल्यतंत्राच्या पदव्युत्तर विद्यार्थ्यांस पुढील बाबींचा परिचय असणे आवश्यक आहे.

शल्यतंत्राचे आयुर्वेदातील प्राधान्य,

शल्यतंत्राच्या प्राचिन संहिता, संहिताकार (आचार्य), टिकाकार.