

## SHALYA TANTRA – SAMANYA

Theory- 400 Marks (100 Each)  
Practical and Viva-Voce - 100 Marks

### **PAPER - I**

100 Marks

#### SHALYA SIDDHANTA – FUNDAMENTALS OF SURGERY

1. Sushruta's contributions in surgical concepts and practices.
2. Knowledge of Dosha, Dhatu and Mala Vigyan and their importance in surgical diseases.
3. Significance and importance of Rakta as the Chaturth Dosha.
4. Yantras and Shastras – Surgical Instruments - Ancient and recent advances.
5. Trividha Karma – Purva, Pradhana and Pashchat Karma and their Importance.
6. Asepsis and Antisepsis.
7. Nirjivikarana – Sterilization – Various methods for surgical equipments, endoscopies, linen and Operation theatre.
8. Surgical infections – Sepsis, Tetanus and Gas gangrene.
9. Care of patients suffering from Hepatitis, HIV-AIDS, STD and other associated infectious diseases.
10. Ashtavidha Shastra Karma – Critical knowledge and their application in surgical practice.
11. Suturing materials, appropriate use of sutures, drains, prosthetic, grafts and surgical implants.
12. Concept of Marma and their clinical application.
13. Shock - Its varieties and management.
14. Raktasrava / Haemorrhage – Types, Clinical features and Management.
15. Concept of Raktastambhana –Haemostasis.
16. Blood Transfusion – Blood groups, compatibility, Indications, Contraindications and complications with management.
17. Fluid, electrolyte, Acid Base Balance and Nutrition
  - a. Introduction of physiology of fluids and electrolytes.
  - b. Dehydration and over hydration.
  - c. Specific electrolyte loss, Acidosis, Alkalosis, Symptomatology and Management.
  - d. Electrolyte changes in specific surgical conditions and their management.
  - e. Plasma volume expanders and their use in surgical condition.
  - f. Various replacement fluids in surgery, mode of administration and complications.
  - g. Nutrition – Indications, types, mode of administration and complications.
18. Vranasopha – Inflammation and Vidradhi - Abscess
19. Granthi – Cyst and Arbuda – Benign and malignant Neoplasm – Concept of Oncogenesis and genetics of cancer.
20. Gulma and Udara Roga.
21. Kshudra Roga.
22. Knowledge of antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.

### **PAPER – II**

100 Marks

#### VISHISHTA SHALYA VIGYANA - SHALYA TANTRA SPECIALITY

1. Yogya Vidhi - Practical and Experimental training
  - a. Practice of surgical procedures on different models.
  - b. Training of Laproscopic and Endoscopic procedures.
2. Vrana – Wound management
  - a. Management of Nija Vrana, Agantuja Vrana, Dushta Vrana and Nadi Vrana.
  - b. Vrana Chikitsa – Shasti upakramas, Pathya-apathya .
  - c. Types and Management of Dagdha Vrana - Burns and scalds.
  - d. Infection of hands and foot, Diabetic wound, Prameha Pidaka – Diabetic carbuncle and its management.
  - e. Management of Pressure ulcers, Venous ulcers and other chronic non-healing ulcers.
  - f. Gangrene and its management.

3. Mutra Roga – Urological diseases.
  - a. Applied anatomy and physiology of urogenital system.
  - b. Investigations of Mutravaha Srotas – Urinary tract.
  - c. Aetiopathogenesis and surgical procedures of Ashmari – Urinary stone diseases.
  - d. Kidney and ureter – Clinical presentation, Investigations and Management of Congenital anomalies, Trauma, Infection, Neoplasm, Hydronephrosis and Hydroureter.
  - e. Urinary bladder - Clinical presentation, Investigations and Management of Congenital anomalies, Trauma, Infection, Neoplasm, Diverticulum, Vesico-vaginal fistula, Atony and Schistosomiasis.
  - f. Urethra - Clinical presentation, Investigations and Management of Congenital anomalies – Hypospadias, Epispadias, Posterior urethral valve, Trauma, Infection, and Neoplasm.
  - g. Prostate and seminal vesicles – Benign and malignant enlargement of prostate, Prostatitis, Prostatic abscess and Calculi.
  - h. Penis – Clinical presentation, Investigations and Management of Congenital anomalies , Trauma, Infection, Phimosis, Paraphimosis, Peyronie’s disease and Neoplasm.
  - i. Testis and scrotum - Clinical presentation, Investigations and Management of Congenital anomalies, Ectopic testis, Trauma, Infection, Neoplasm, Testicular torsion, Hydrocele, Varicocele, Spermatocele, Chylocele, Pyocele, Haematocele, Epididymal cyst and Fournier’s gangrene.
  - j. Urinary diversions- Indications, types and techniques.
  - k. Retention of urine – Mutraghata and Mutrakruccha- Etiology, diagnosis and management.
  - l. Saraktamutra, Haematuria - Etiology, Clinical features and management.
  - m. Renal failure – Causes, Diagnosis, Investigations and Management.
4. Asthi roga and Marma Chikitsa - Orthopaedics
  - i. Anatomy and physiology of bone.
  - ii. Diseases of Asthi / Bone and Sandhi / Joints – Congenital, Degenerative, Infective, Metabolic and Neoplastic Disorders of Bones and Joints.
  - iii. Aetiopathogenesis, treatment along with surgical procedures of Bhagna - Fracture, Sandimoksha - Dislocation and bone grafting.
  - iv. Diseases of Spine, vertebral column and spinal cord.

100 Marks

**PAPER – III**

**ADHUNIK SHALYA KARMA - MODERN SURGERY**

1. Fundamentals of modern surgery and treatment of surgical disorders including surgical anatomy, physiology and pathology.
2. Diagnosis and Surgical treatment of head and spine injury, thoracic and abdominal trauma. Blast injuries and Management
3. Diagnosis and Surgical management of neck disorders e.g. salivary glands, thyroid, Thyroglossal cyst and Fistula, Branchial cyst and fistula, Cystic hygroma and Lymphadenopathies.
4. Diagnosis and Surgical management of breast diseases- Benign and Malignant breast tumours.
5. Diagnosis and Surgical measures of diseases of Gastrointestinal system -
  - a. Oral cavity - Oral ulcers, Oral cancer, Precancerous conditions, Submucosal fibrosis, Leukoplakia, Cleft lip and palate, Lip tumours, Mucosal cyst, Nasopharyngeal cancer, Tongue ulcer and cancer.
  - b. Oesophagus - Oesophageal varices, Dysphagia, Neoplasm, Strictures and Gastro oesophageal reflux.
  - c. Stomach and duodenum –Congenital anomalies, Injuries, Inflammation, Ulcer, Neoplasm, Pyloric stenosis, Acute dilatation ,Hiatus hernia and Foreign bodies.

- d. Pancreas - Congenital anomalies, Acute and Chronic pancreatitis, Calculi Neoplasm and Cysts of pancreas.
- e. Peritoneum, Omentum, Mesentery, Retroperitoneal Space – Peritonitis, Abscess, Neoplasm, Mesenteric cyst, Torsion of mesentery, Vascular thrombosis, Retroperitoneal cyst and Fibrosis.
- f. Abdominal mass - Diagnosis and Management.
- g. Small intestine - Congenital anomalies, Inflammation, Ulcer, Neoplasm, Stenosis, Injuries, Foreign bodies, Diverticuli, Peutz-jeghers syndrome, Chron's disease, Carcinoid tumours, Enteric perforation and Intestinal fistula.
- h. Large intestine - Congenital anomalies, Inflammation, Ulcer, Neoplasm, Stenosis, Injuries, Foreign bodies, Diverticuli, Faecal fistula, Amoebic ulcer and Familial polyposis coli.
- i. Caecum and Vermiform appendix- Appendicitis, Appendicular abscess, Appendicular mass, Perforation, Carcinoid Tumor and other Neoplasm.
- j. Gastrointestinal bleeding – Haemetemesis, Malaena, Haemobilia, Bleeding per anum - Causes, Diagnosis and Management.
- k. Rectum and anal canal - Diagnosis and Surgical management of Congenital Anomalies, Inflammation, Ulcer, Neoplasm, Stenosis, Prolapse, Haemorrhoids, Fistula-in-ano, Fissure-in-ano, Anorectal Abscess, Incontinence, Injuries, Foreign bodies, Sacrococcygeal Teratomas and Pilonidal sinus.
6. Umbilicus and abdominal wall – Congenital anomalies, Umbilical infections, Sinus, Neoplasm, Abdominal dehiscence, Divarication of recti, Desmoid tumor and Meleney's gangrene.
7. Diagnosis and surgical measures of diseases of Hepatobiliary system -
  - a. Liver – Abscess, Cyst - Hydatid cyst, Primary and Secondary malignant tumours, Portal Hypertension and Budd-Chiari Syndrome.
  - b. Gall bladder and Bile duct - Congenital anomalies, Acute and Chronic Cholecystitis, Cholelithiasis, Neoplasm, Cholangitis, Stenosis, Choledocholithiasis, Choledochal cyst and Cholangiocarcinoma.
  - c. Spleen – Splenomegaly and Splenic Injury.
8. Diagnosis and surgical measures for disorders of Artery, Vein, Ligaments, Muscles and Tendons.
9. Diagnosis and surgical management of Hernias – Inguinal, Femoral, Umbilical, Incisional, Abdominal wall and other hernias.
10. Endoscopic procedures - Oesophagogastroduodenoscopy, Sigmoidoscopy and Colonoscopy.
11. Diagnostic and therapeutic laparoscopy.
12. Anaesthesia - Definition, Types, Anesthetic agents, Indications, Contraindications, Procedures, Complications and management.

**PAPER –IV**

**100 Marks**

**SHALYA VANGMAYA – SHALYA LITERATURE, RESEARCH AND DEVELOPMENT**

1. Critical study of the Sushruta Samhita and relevant portions of Shalyatantra in Brihatrayee and Laghutrayee.
2. Knowledge and importance of Surgical Audit.
3. Medico legal issues – Understanding the implications of acts of omission and commission in practice. Issues regarding Consumer Protection Act in medical profession, National Health Policy, Implications in medico-legal cases like accidents, assaults etc.
4. Surgical ethics including Informed consent.
5. Knowledge of different type of experimental Surgical Model for Research in Surgery.
6. Sandhana Karma – Plastic reconstructive and cosmetic surgery.
  - Fundamentals of Sandhana Karma –
    - a. Karna Sandhana – Auroplasty

- b. Nasa Sandhana – Rhinoplasty
- c. Ostasandhana – Cheiloplasty
- d. Grafts and Flaps – Techniques and applications.
- e. Vascular anastomosis and grafts.

7. **Anushalya Karma** – Parasurgical procedures
- a. Kshara Karma, Kshara Sutra, Agnikarma and Raktamoskhana.

**Pattern of Practical examination**

	<b>100 Marks</b>
1. Case record (25)	- 10 Marks
2. Short case	- 10 Marks
3. Long case	- 20 Marks
4. Identification of specimen / radiograph and Instruments	- 20 Marks
5. Thesis Presentation	- 20 Marks
6. Viva-voce	- 20 Marks

**Reference Books**

- |   |                                   |
|---|-----------------------------------|
| 1. Sushruta Samhita   |                                   |
| 2. Ashtanga Sangraha  |                                   |
| 3. Ashtanga Hridaya   |                                   |
| 4. Charaka Samhita  |                                   |
| 5. The Surgical instruments of the Hindus                                   | - Girindranath Mukhopadhyaya      |
| 6. Shalya Tantra Samuchchaya  | - Pandit Ramadesh Sharma          |
| 7. Shalya Vigyan (Part 1-2)   | - Dr. Surendra Kumar Sharma       |
| 8. Shalya Samanvaya (Part 1-2)  | - Vd. Anantaram Sharma            |
| 9. Shalya Pradeepika  | - Dr. Mukund Swaroop Verma        |
| 10. Sushruti  | - Dr. Ram Nath Dwivedi            |
| 11. Clinical Shalya Vigyan  | - Dr. Akhilanand Sharma           |
| 12. Bhagna Chikitsa<br>Deshpande  | - Dr. Prabhakar Janardhan         |
| 13. Kshara sutra management in anorectal ailments<br>and Dr. Kulwant Singh. | - Dr. S.K. Sharma, Dr. K.R.Sharma |
| 14. Anorectal diseases in Ayurveda<br>Kumar Chowdary.                       | - Dr. Sizoria and Dr. Praveen     |
| 15. Adhunik Shalya Chikitsa Siddhanta                                       | - Dr. Katil Narshingham Udupa     |
| 16. Agnikarma Technology Innovation   | - Dr. P.D. Gupta                  |
| 17. Shalya Tantra Ke Siddhanta  | - Dr. K.K.Takral                  |
| 18. Recent advances in the management of Arshas /<br>Kumar                  | Haemorrhoids - Dr. P. Hemantha    |
| 19. Arsha Evum Bhagander Mein sutra Avacharan                               | - 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 Shalakya 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 Surgery<br>Mann and R.C.G. Russell  | - Norman.S. Williams, Charles.V.  |
| 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                          |

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| 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                       |

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