

જીયાનું નામ: (૧) લેકચરર સિલેક્શન સ્કેલ(પ્રોફેસર),વર્ગ-૧ (જાહેરાત ક્રમાંક.૧૨/૧૭-૧૮) અને

(૨) લેકચરર સિનિયર સ્કેલ (રીડર), વર્ગ-૧ (જાહેરાત ક્રમાંક.૨૮/૧૭-૧૮)

વિષય: “શલ્યતંત્ર”

કુલ પ્રશ્નો:૩૦૦	પ્રાથમિક કસોટીનો અભ્યાસક્રમ	કુલ ગુણ -૩૦૦
Part-I		
માધ્યમ: ગુજરાતી	સામાન્ય અભ્યાસ	ગુણ -૧૦૦
૧	ભારતની ભૂગોળ- ભૌગોલિક, આર્થિક, સામાજિક, કુદરતી સંસાધન અને વસ્તી અંગેની બાબતો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૨	ભારતનો સાંસ્કૃતિક વારસો- સાહિત્ય, કલા, ધર્મ અને સ્થાપત્યો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૩	ભારતનો ઇતિહાસ - ગુજરાતના ખાસ સંદર્ભ સાથે	
૪	ભારતની અર્થવ્યવસ્થા અને આયોજન	
૫	ભારતીય રાજનીતિ અને ભારતનું બંધારણ: (૧) આમુખ (૨) મૂળભૂત અધિકારો અને ફરજો (૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો (૪) સંસદની રચના (૫) રાષ્ટ્રપતિની સત્તા (૬) રાજ્યપાલની સત્તા (૭) ન્યાયતંત્ર (૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ (૯) એટર્ની જનરલ (૧૦) નીતિ આયોગ (૧૧) પંચાયતી રાજ (૧૨) નાણા પંચ (૧૩) બંધારણીય તથા વૈધનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્પ્ટ્રોલર એન્ડ ઓડિટર જનરલ; કેન્દ્રીય સતર્કતા આયોગ, લોકપાલ તથા લોકાયુક્ત અને કેન્દ્રીય માહિતી આયોગ	
૬	સામાન્ય બૌદ્ધિક ક્ષમતા કસોટી	
૭	સામાન્ય વિજ્ઞાન, પર્યાવરણ અને ઈન્ફર્મેશન એન્ડ કોમ્યુનિકેશન ટેકનોલોજી	
૮	ખેલ જગત સહિત રોજબરોજના પ્રાદેશિક, રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય મહત્વના બનાવો	

Syllabus of Preliminary Test for the recruitment of Lecturer Selection Scale (Professor), Class-I (advt.No.12/17-18) and Lecturer Senior Scale (Reader), Class-I, (Ayurveda) (advt.No.28/17-18)

(Shalya Tantra)

Total Questions:300 Syllabus of Preliminary Test Total Marks-300

Part-I

Medium: Gujarati General Study Marks- 100

1	Geography of India- Physical, Economic, Social, Natural Resources and population related topics- with special reference to Gujarat
2	Cultural heritage of India- Literature, Art, Religion and Architecture- with special reference to Gujarat
3	History of India with special reference to Gujarat
4	Indian Economy and Planning
5	<u>Indian Polity and the Constitution of India:</u> (1) Preamble (2) Fundamental Rights and Fundamental Duties (3) Directive Principles of State Policy (4) Composition of Parliament (5) Powers of the President of India (6) Powers of Governor (7) Judiciary (8) Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society (9) Attorney General (10) NITI Aayog (11) Panchayati Raj Institutions (12) Finance Commission (13) Constitutional and Statutory Bodies: Election Commission of India, Union Public Service Commission, State Public Service Commission, Comptroller and Auditor General; Central Vigilance Commission, Lokpal and Lokayukta, Central Information Commission
6	General Mental Ability
7	General Science, Environment and Information & Communication Technology
8	Daily events of Regional, National and International Importance including Sports

Part-II Syllabus Of Concerned Subject

(Shalya Tantra)

Medium: English

Questions:200

Marks : 200

- 1. Shalya Tantra:** Etymology, definition Scope and importance. Study of Sushruta Samhita Sutra Sthana and modern surgical clinical methodology. Applied anatomy, physiology and surgical pathology of common surgical conditions including relevant Ayurvedic aspect. Applicability of Shat Kriyakala in the pathogenesis of surgical diseases. Applicability of Prakriti in understanding the causes and role of treatment in surgical diseases. Applicability of basic principles of Ayurveda in Rogi Pariksha (Trividha, Shadvidha, Ashtavidha and Dashavidha Pariksha) and latest investigations. Concept of Rakta according to Sushruta. Introduction of clinical and diagnostic methods in Shalya Tantra Xrays, U.S.G., Endoscopies (for diagnostic and treatment purposes), MRI, CAT scanning and other recent diagnostic tools. Concept and applicability of SadhyaAsadhya (Prognosis) Arishtha lakshana. Knowledge of life saving drugs. Emergency conditions and its management. Diagnosis and management of Pranashtha Shalya.

- 2. Shalya Siddhanta – Fundamentals of Surgery**
 - a) Sushruta’s contributions in surgical concepts and practices. Knowledge of Dosha, Dhatu and Mala Vigyan and their importance in surgical diseases. Significance and importance of Rakta as the Chaturth Dosha. Yantras and Shastras – Surgical Instruments - Ancient and recent advances. Trividha Karma –

Purva, Pradhana and Pashchat Karma and its Importance. Asepsis and Antisepsis. Nirjantukarana – Sterilization – Various methods for surgical equipments, laparoscopes, linen and Operation theatre. Surgical infections – Sepsis, Tetanus and Gas gangrene. Care of patients suffering from Hepatitis, HIV-AIDS, STD and other associated infectious diseases. Ashtavidha Shastra Karma – Critical knowledge and their application in surgical practice. Suturing materials, appropriate use of sutures, drains, prosthetic, grafts and surgical implants. Concept of Marma and their clinical application. Shock - Its varieties and management. Raktasrava / Haemorrhage – Types, Clinical features and Management. Concept of Raktastambhana –Haemostasis. Vranasopha – Inflammation and Vidradhi – Abscess. Granthi – Cyst and Arbuda – Benign and malignant Neoplasm – Concept of Oncogenesis and genetics of cancer. Gulma and Udara Roga. Kshudra Roga.

- b) Fluid, electrolyte, Acid Base Balance and Nutrition: Introduction of physiology of fluids and electrolytes. Dehydration and over hydration. Specific electrolyte loss, Acidosis, Alkalosis, Symptomatology and Management. Electrolyte changes in specific surgical conditions and their management. Plasma volume expanders and their use in surgical condition. Various replacement fluids in surgery, mode of administration and complications. Nutrition – Indications, types, mode of administration and complications.
- c) Blood Transfusion – Blood groups, compatibility, Indications, Contraindications and complications with management.
- d) Knowledge of antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.

3. Vishishta Shalya Vigyana - Shalya Tantra Speciality

- (a) Vrana – Wound management: Management of Nija Vrana, Agantuja Vrana, Dushta Vrana and Nadi Vrana. Vrana

Chikitsa – Shasti upakramas, Pathya-apathya. Types and Management of Dagdha Vrana - Burns and scalds. Infection of hands and foot, Diabetic wound, Prameha Pidaka – Diabetic carbuncle and its management. Management of Pressure ulcers, Venous ulcers and other chronic non-healing ulcers. Gangrene and its management.

(b) Mutra Roga – Urological diseases.

- Anatomical and physiological knowledge of kidney, ureter, urinary bladder, prostate, seminal vesicles, urethra and penis.
- Investigations of Mutravaha Srotas – Urinary tract.
- Aetiopathogenesis and surgical procedures of Ashmari – Urinary stone diseases.
- Kidney and ureter – Clinical presentation, Investigations and Management of Congenital anomalies, Trauma, Infection, Neoplasm, Hydronephrosis, Hydroureter and Haematuria.
- Urinary bladder - Clinical presentation, Investigations and Management of Congenital anomalies, Trauma, Infection, Neoplasm, Diverticulum, Vesico-vaginal fistula, Atony, Schistosomiasis, Urinary diversions, Retention of urine – Mutraghata and Mutrakruccha.
- Urethra - Clinical presentation, Investigations and Management of Congenital anomalies – Hypospadias, Epispadias, Posterior urethral valve, Trauma, Infection, and Neoplasm.
- Prostate and seminal vesicles – Benign and malignant enlargement of prostate, Prostatitis, Prostatic abscess and Calculi.
- Penis – Clinical presentation, Investigations and Management of Congenital anomalies , Trauma, Infection, Phimosis, Paraphimosis, Peyronie’s disease and Neoplasm.
- Testis and scrotum - Clinical presentation, Investigations and Management of Congenital anomalies, Ectopic testis, Trauma, Infection, Neoplasm, Testicular torsion, Hydrocele,

Varicocele, Spematocele, Chylocele, Pyocele, Haematocele, Epididymal cyst and Fournier's gangrene.

- Renal failure – Causes, Diagnosis, Investigations and Management.
- (c) Asthi roga and Marma Chikitsa – Orthopaedics: Anatomy and physiology of bone. Diseases of Asthi / Bone and Sandhi / Joints – Congenital, Degenerative, Infective, Metabolic and Neoplastic Disorders of Bones and Joints. Aetiopathogenesis, treatment along with surgical procedures of Bhagna - Fracture, Sandimoksha - Dislocation and bone grafting. Diseases of Spine, vertebral column and spinal cord.

4. Adhunik Shalya and Shastra Karma

- Fundamentals of modern surgery and treatment of surgical disorders including surgical anatomy, physiology and pathology.
- Diagnosis and Surgical treatment of head and spine injury, thoracic trauma and abdominal trauma. Blast injuries and Management
- Diagnosis and Surgical management of neck disorders e.g. salivary glands, thyroid, Thyroglossal cyst and Fistula, Branchial cyst and fistula, Cystic hygroma and Lymphadenopathies.
- Diagnosis and Surgical management of breast diseases, Benign and Malignant breast tumours.
- Diagnosis and Surgical measures of all diseases of Gastrointestinal system and Hepatobiliary system.
- Diagnosis and surgical measures for disorders of Artery, Vein, Ligaments, Muscles and Tendons.
- Diagnosis and surgical management of Hernias – Inguinal, Femoral, Umbilical, Incisional, Abdominal wall and other hernias.

- Endoscopic procedures - Oesophagogastroduodenoscopy, Sigmoidoscopy and Colonoscopy.
- Diagnostic and therapeutic laparoscopy.
- Anaesthesia - Definition, Types, Anesthetic agents, Indications, Contraindications, Procedures, Complications and management.

5. Vishista Anushastra Karma

- Kshara Karma and Prayoga – Therapeutic Chemical Cauterization. Introduction of different types of Kshara, Method of preparation, Standardization, pH value, Application, Complications and its management.
- Surgical Anatomy and Physiology of Anus and Rectum.
- Arshas - Nidana, Purvaroop, Roopa, Samprapti, Prakara and Chikitsa.
- Haemorrhoids - Aetio-pathogenesis, types and its surgical management. Knowledge of different methods of treating Haemorrhoids - Rubber band ligation, D.G.H.A.L, Radiofrequency, Ablation, Cryo-surgery, Cautery, Laser, Infrared coagulation and other advanced techniques.
- Bhagandara - Nidana, Samprapti, Prakara, Doshanusarachikitsa, Knowledge and application of Kshara Sutra.
- Fistula-in-ano - Definition, Aetio-Pathogenesis, Types, Diagnostic methods and its Surgical, Para Surgical Management including knowledge of Fibrin Glue, Advanced Flap Therapies and other recent techniques.
- Parikartika - Nidana, Samprapti and its Chikitsa.
- Fissure-in-ano - Aetio-pathogenesis, types and its surgical management.
- Sannirudhaguda and its Chikitsa.
- Anal Stenosis - Aetio-pathogenesis and its surgical management.
- Gudavidradhi - Nidana, Purvaroop, Roopa, Samprapti, Prakara and its Chikitsa.
- Anorectal abscesses – Aetio- pathogenesis, types, complications and its surgical management.

- Gudagatashalya – Diagnosis and its Management.
 - Foreign body in rectum and anal canal - Method of diagnosis and its management.
 - Congenital Anorectal disorders and its surgical management.
 - Gudaarbuda and Granthi and its Chikitsa.
 - Anorectaltumour - Types and its surgical management.
6. **Agnikarma** : Introduction, definition and importance, Poorva, Pradhana and Paschat karma, various substances and Shalakas used for Agnikarma and their indications, contra-indications and complications. Diagnosis and management of Oil burn, Dhumopaghata, Ushnavata, Sunburn, Frost bite and Electric burn. Knowledge of modern thermal equipment - Diathermy, Laser therapy, microwave, Ultracission technique, Cryo Technique and its uses. Effect of Agnikarma on skin, muscle tissue, nerves, metabolism, blood circulation and infective lesions.
7. **Raktamokshana** – Bloodletting Procedures: Introduction, importance, Indication and contraindication. Justification of usage of different types of Raktamokshana in various therapeutic applications. Different types of Raktamokshana – Sastrakritha - Siravyadhana, Prachana and Asastrakritha - Shringa, Jaluka, Alabu and Ghati.
- Jalauka - Nirukti, Paryaya, Bhedha, Sangrahana, Samrakshana, Jalaukavacharana Vidhi - Poorva, Pradhana and Paschat karma.
- Knowledge of Leeches - Morphology, Anatomy, Physiology, Bio-chemical effects of its various constituents present in its saliva.
- Rakta- Importance, Formation, Panchabhoutikatva, RaktaSthana, Guna, Prakurta Karma and Rakta Sara Purashalakshanas. Suddha and Dushta Rakta Lakshanas. Rakta Pradoshaja Vyadhis.
8. **Shalya Vangmaya** – Shalya literature, Research and Development

Thorough study of the Sushruta Samhita including other relevant portions of Brihatrayee and Laghutrayee. Knowledge and importance of Surgical Audit. 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. Surgical ethics including Informed consent. Knowledge of different type of experimental Surgical Model for Research in Surgery.

Sandhana Karma – Plastic reconstructive and cosmetic surgery. Fundamentals of Sandhana Karma – i. Karna Sandhana – Auroplasty, ii. Nasa Sandhana – Rhinoplasty, iii. Oostasandhana – Cheiloplasty, iv. Grafts and Flaps – Techniques and applications. v. Vascular anastomosis and grafts.

- 9. Research Methodology:** Brief historical background of research in Ayurved and contemporary medical science. Research in Ayurved - Scope, need, importance, utility. Types of Research, Research design: observational and interventional, descriptive and analytical, preclinical and clinical, qualitative and quantitative. Research process, Research tools. The concept and importance of ethics in research, Ethical aspects related to human and animal experimentation. Information about Institutional Ethics Committee (IEC) and Animal Ethics Committee (AEC) and their functions. Classical Methods of Research. Comparison between methods of research in Ayurveda (Pratigya, Hetu, Udaharana, Upanaya, Nigaman) and contemporary methods in health sciences. Concept of Evidence Based Medicine and Scientific Writing, Importance of IT in data mining and important research data portals concerned with Ayurved and contemporary medical science (DHARA, PubMed, Ayush Research Portal, Bioinformatics Center, Research Management Informatic System etc.), Medical-Statistics.

10. Current Trends and Recent Advancements in Ayurveda.