10. KAUMARBHRITYA-BALA ROGA

PAPER – I Bija, Garbha Vigyaniya (Human Genetics, Embryology) Marks: 100

A. Prakrita Bija-Bijabhaga-Bijabhagavayava evam Tadjanya Vikriti (Genetics and related disorders)

1. Ayurvedic genetics with modern interpretations: Shukra, Shonita, Shukra Shonita Doshas, Bija-Bijabhaga-Bijabhagavayava Vikriti, Matrija and Pitraja Bhavas, Yajjah Purushiya and Atulyagotriya; Measures for obtaining good progeny.

2. Modern genetics

Basic concepts:

- 1. Cell, cell division, nucleus, DNA, chromosomes, classification, karyotype, molecular and cytogenetics, structure of gene, and molecular Screening.
- 2. Human Chromosomes Structure, number and classification, methods of chromosome preparation, banding patterns.
- 3. Single gene pattern inheritance: Autosomal & Sex chromosomal pattern of inheritance, Intermediate pattern and multiple alleles, Mutations, Non Mendelian inheritance, mitochondrial inheritance, Genomic imprinting, parental disomy.
- 4. Criteria for multi-factorial inheritance.

Pathogenesis

- 1. Pathogenesis of chromosomal aberrations and their effects, recombinant DNA, genetic inheritance, inborn errors of metabolism
- 2. Chromosomal abnormalities: Autosomal & Sex chromosomal abnormalities, syndromes
- 3. Multifactorial pattern of inheritance: Teratology, Cancer Genetics Haematological malignancies, Pharmacogenetics.
- 4. Chromosomal disorders
- 5. Chromosomal aberration (Klinefelter, Turner and Down's syndrome
- 6. Genetic Counseling, Ethics and Genetics.

B. Prakrita Bija-Bijabhaga-Bijabhagavayava evam Tadjanya Vikriti (Genetics and related disorders)

- 1. Garbha (embryo), Garbhawastha (gestation period), sperm, ovum; spermatogenesis; oogenesis; structure of ovum
- 2. Sperm in the male genital tract; sperm in the female genital tract, activation and capacitation of sperm.
- 3. Garbha Masanumasika Vriddhi evam Vikasa (Ayurvedic and modern concepts of Embryo and Fetal development)
 - First week of development
 - Second week of development
 - Third week of development
 - Fourth to eighth week of development (Embryonic period)
 - Development from third month till birth (Fetal period)
- 4. Formation of Prakriti, their assessment in children viz. Bala, Kumara, Yauvana; Pathya-Apathya according to Prakruti.
- 5. Apara (Placenta) Apara Nirmana (Formation of placenta), Apara Karya (Functions of placenta); Apara Vikara (Placaental abnormalities)
- 6. Nabhinadi (Umbilical Cord) Formation and features of umbilical cord
- 7. Garbha Poshana (Nutrition- from conception to birth)
- 8. Yamala Garbha(twins)

- 9. Garbha Vriddhikara Bhavas, Garbhopaghatkara Bhavas.
- 10. Effect of maternal medication, diet and illness over fetus.
- 11. Teratology including defects of bija, atma karma, kal, ashaya etc.: causative factors for teratogenecity, mode of actions of teratogenes, critical periods
- 12. Perinatal Care and Perinatal complications
- 13. Scientific study of Jataharini specific to children.
- 14. Prenatal diagnosis
- 15. Samanya Janmajata Vikara (Common congenital anomalies of different systems): Sahaja Hridaya Vikara (Congenital Cardiac Disorders) Jalashirshaka (Hydrocephalus), Khandaoushtha (cleft lip), Khanda-Talu (cleft palate), Sanniruddha Guda (Anal stricture / imperforated anus), Pada-Vikriti (Talipes equanovarus and valgus), Tracheoesophageal Fistula (TOF), Spina bifida, Meningocele, Meningomyelocele, Pyloric Stenosis.

PAPER-II Navajata Shishu Vigyan evam Poshana

Marks: 100

PART-A

- 1. Navajata Shishu Paribhasha, Vargikarana (Important definitions and classification related to neonates.)
- 2. Navajata Shishu Paricharya evam Prana-Pratyagamana (Care of the newborn including recent methodology for the resuscitation)
- 3. Samanya Navajata Shishu Paricharya (General Neonatal Care Labour room onwards)
- 4. Samaya purva evam Samaya pashchat Jata Shishu Paricharya (Management of preterm, post term and IUGR newborn)
- Prasava Kalina Abhighataja Vyadhi (Birth injuries): Upashirshaka (Caput , cephalohematoma), Bhagna (Fractures), Mastishkantargata Raktasrava (ICH, IVH, Subdural hemorrhage)
- 6. Navajata Shishu Parikshana (Examination of new born): Ayu Parikshana (including Lakshanadhyaya) Modern approach of Neonatal Examination including gestational age assessment
- 7. Kumaragara: Navajata Shishu Kaksha Prabandhana (Nursery management), NICU, Nursery plan, staff pattern, medical records, Visankramnikarana (sterlization), Knowledge of equipments used in nursery.

PART-B

- Navajata Shishu Vyadhi (Early neonatal disorders): Hypothermia, Shvasavarodha (Asphyxia Neonatorum/Respiratory distress), Ulvaka (Aspiration pneumonia), Rakta Vishamayata (Neonatal septicemia), Kamala (Neonatal Jaundice), Akshepaka (Neonatal convulsion), Pandu (Anemia), Atisara (Diarrhea), Asamyaka Nabhinal kartanjanya vyadhi.
- 9. Navjata Kshudra Vikara (Minor neonatal ailments): Chhardi (Vomiting), Vibandha (constipation), Udara shul (Infantile colic), Puya Sphota (Pyoderma), Shishu Netrabhishyanda (Ophthalmia neonatorum).
- 10. Sadyojatasya Atyayayika Chikitsa (Management of neonatal emergencies): Shock, Fluid and electrolyte imbalance, Convulsion, Hemorrhagic diseases of Newborn etc.
- 11. Procedures: Shiro-Pichu, Abhyanga, Parisheka, Pralepa, Garbhodaka Vamana (Stomach wash), Ashchyotana Neonatal resuscitation techniques, Blood sampling, Intravenous canulation, Umbilical vein catheterization, Bone marrow aspiration, Phototherapy, Naso-Gastric tube insertion, Urethral catheterization, Exchange blood transfusion, Thoracocentesis, Bone marrow infusion, Lumbar puncture

12. Nutrition:

A. Navjat Shishu Ahara (Neonatal feeding):

- 1. Specific Feeding methodology as per Ayurveda and recent advances; Day to day fluid, milk, caloric requirement for the newborn, feeding technique for the preterm baby.
- 2. Stanyotpatti and Prasruti (Lactation physiology), Stanya Samghatana (Composition of breast milk), Stana Sampat (Characteristics of normal breast), Stanya Sampata evam Mahatva (Properties & importance of pure milk), Stanya-Piyusha (Colostrum); Stanya-Pana-Vidhi (Method for breast milk feeding), Stanyakshaya / Stanyanasha (Inadequate production and absence of breast milk), Stanya parikshana (Examination of breast milk), Stanyabhave Pathya Vyavastha (Alternative feeding methods in absence of breast milk), Various feeding methods, TPN(Total Parenteral Nutrition)
- 3. Stanyadosha (Vitiation of Breast milk), Stanya Shodhana (Purification of breast milk), Stanya Janana and Vardhanopakrama (Methods to enhance breast milk formation)
- 4. Dhatri (Wet nurse): Dhatri Guna and Dosha (Characteristics of Wet nurse), Concept of Breast Milk Banking.
- 5. Lehana (Elucturies)
- B Bala-Poshana (Child Nutrition):
 - 6. Daily requirements of nutrients for infant and children
 - 7. Common food sources
 - 8. Satmya and Asatmya Ahara (Compatible and incompatible diet)
 - 9. Pathya evam Apathya Ahara (Congenial and non-congenial diet)
 - 10. Stanyapanayana (Weaning)

PAPER-III Balrog (Pediatric Disorders)

PART-A

- 1. Pranvaha Srotasjanya Vyadhi (Respiratory disorders)- Kasa (Cough), Shvasa (Respiratory distress Syndrome), Tamaka Shwasa (Childhood Asthma), Bronchiolitis, Shvasanaka Jwara (Pneumonia- bacterial, viral etc) Rajyakshma (tuberculosis), Vaksha-Puyata (Pyothorax), Vaksha Vata-Purnata (Pneumothorax)
- 2. Annavaha Srotasjanya Vyadhi (Gastrointestinal disorders): Jwar (Fever), Chhardi (Vomiting) Ajirna (Indigestion), Kshiralsaka, Atisara (Diarrhea), Pravahika, Vibandha (Constipation, Udarshula (Pain in abdomen), Guda bhramsh (Rectal prolapse)
- Rasa evam Raktavaha Srotasjanya Vyadhi (Hematological and circulatory disorders): Pandu (Anemia and its various types like Nutritional, haemolytic etc.) and , Raktapitta (Bleeding disorders), Vishishta Hridrog (Specific cardiac diseases- RHD etc), Hypertension, Leukemia.
- 4. Mamsavaha Srotasjanya Vyadhi: Myopathies
- Mutravaha srotasjanya Vyadhi (Urinary System disorders): Vrikkashotha (Glomerulonephritis and nephrotic syndrome), Mutrakriccha (Dysuria), Mutraghata (Anuria),
- Vatavaha Sansthanjanya Vyadhi (Nervous system disorders): Apasmara (Epilepsy), Mastulunga-Kshaya, Mastishka-Shotha (Encephalitis), Mastishkavrana-Shotha (Meningitis),
- 7. Pediatric disabilities and Rehabilitation: Cerebral palsy, Ardita (Facial paralysis), Pakshavadha (Hemiplegia), Ekangaghata (Monoplegia), Adharanga Vayu (diplegia),. Amavata (Juvenile Rheumatoid arthritis)
- 8. Manovaha Srotasa Vyadhi: Breath holding spell, Shayya mutra (Bed wetting), Autism, ADHD (Attention Deficit and hyperactive disorders), Learning Disability, Mental retardation, Temper tantrum, Pica.

PART-B

9. Antahsravi evam Chayapachayajanya Rog (Endocrine and Metabolic disorders)

- 10. Kuposhanjanya Vyadhi (Nutritional disorders): Karshya-Phakka-Balshosha-Parigarbhika (PEM and allied disorders), Vitamin-mineral and trace elements deficiency disorders, Hypervitaminosis,
- 11. Krimi evam Aupsargika Rog (Infestations and Infections): Krimi (Giardiasis and intestinal helminthiasis, Amoebiasis) Common bacterial, viral infections with special reference to vaccine-preventable diseases: Rohini (Diphtheria), Whooping cough, Aptanaka (Tetanus including neonatal tetanus), Romantika (Measles), Karnamula Shotha (Mumps), Rubella and Masurika (Chickenpox), Antrika Jwar (Typhoid and Paratyphoid), Viral Hepatitis,),; Vishama Jwar (Malaria) and Kala-azar, Dengu fever, HIV (AIDS), Poliomyelitis, Mastishkavaran Shotha (Meningitis), Mastishka Shotha (Encephalits), Chickengunia
- 12. Tvaka Vikara (Skin disorders): Ahiputana (Napkin Rashes), Shakuni (Impetigo), Sidhma, Pama, Vicharchika, Charmadal (Infantile atopic dermatitis), Gudakutta.
- 13. Anya Vyadhyi (Miscellaneous disorders): Jalodar (Ascites), Gandamala, Apachi (Cervical lymphadenitis), Kukunakadi Akshi Rog, Hodgkin & non-Hodgkin Lymphoma, Abnormal growth patterns, Short stature, Niruddha prakash (Phimosis), Paridagdha Chhavi, Utphullika
- 14. Samghata- Bala Pravrita Rog (damstra): Dog bite. Snake bite, Scorpion bite etc
- 15. Atyayika Balarog Prabandhana (Pediatric emergency management): Shock and Anaphylaxis, Fluid and electrolyte management, Drowning, Foreign body aspiration, Status epilepticus, Acute hemorrhage, Acute renal failure, Febrile convulsion, Status asthmaticus, Burn, Acute Poisoning
- 16. Balagraha: Scientific study of Graha Rogs
- 17. Life Style disorders

PAPER-IV Kaumarabhritya in Ancient Classics and recent Advances Marks: 100

- 1. Significant contributions of Kashyapa samhita, Arogya raksha Kalpadrum and other texts /treatises of Ayurveda such as Harita Samhitain the field of Kaumarbhritya including relevant parts from Brihatrai
- 2. Panchakarma: Principles of Panchakarma [Swedan–Hasta–Pata sweda etc], and their application in pediatric practice in detail.
- 3. Update knowledge of clinical pediatrics including recent researches in Kaumarbhritya.
- 4. Fundamentals of Hospital management with special emphases on Pediatric Ward.

Practical/ Clinical Exposure for (Record of exposures to be produced at the practical examination)

- 1. Full term, preterm, post term new born baby care
- 2. Practical procedures like phototherapy, premature baby care, KMC, venepuncture, cord blood sampling, stomach wash, suction, resuscitation, etc.
- 3. Practical skill of Pediatric Panchakarma procedures
- 4. Child Health Check up
- 5. IQ Assessment of Children
- 6. Exposure to National Health Programs related to Children, including Immunization Program.
- 7. Patient case Records (50 Records)
- 8. Practical knowledge of modern diagnostic (invasive & non invasive) tools and techniques used in pediatrics.
- 9. Management of common pediatrics emergencies.
- 10. Participation in UG teaching/training from UG syllabus via A-V aids (minimum-3)
- 11. Minimum 15 days compulsory reciprocal exposures in Kaumarbhritya department of other institution during the study period.
- 12. Participation in National/international seminars
- 13. Publication/acceptance of two research papers in indexed/peer reviewed/ISSN journals from the dissertation.

Pattern of practical examination:

1. Case record	-15 Marks
2. Bed side examination	
a) Short Case	-15 Marks
b) Long Case	-25 Marks
Identification of instruments/ spotting	-10 Marks
4. Lecture/Dissertation Presentation	-10 Marks
5. Viva-voce	-25 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

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9. PRASUTI TANTRA- STREE ROGA

PAPER – I Garbhagarbhini Vigyan

- 1. Applied anatomy of female Genito urinary system, pelvis and Pelvic floor. Pelvic assessment and foetal skull.
- 2. Physiology, neuro endocrinology and pathology of puberty and Neuroendocrine control of menstrual cycle.. Artava, Rituchakra, Streebija, Pumbija.
- Garbha sambhava samaagri, Garbhadhanam, Pre-conceptional counseling and care, Pumsavana, Garbhasya shad dhatvatmakata, Garbhavakranti, Matrijadi bhava, Garbha vriddhi, role of panchamahabhutas in the formation and development of foetus. Garbhasya avayavotpatti, Fundamentals of reproduction – gamatogenesis, Fertilization, Implantation and early development of human embryo.
- Apara, Garbhodaka Jarayu, Nabhinadi.
 Placenta, amniotic fluid, membranes and umbilical cord -their formation, structure, Functions and abnormalities.
 Garbha-poshana, Garbha shareerkriya vaishishtyam, Garbha lingotpatti, Garbha varnotpatti, Garbhasya masanumasika vriddhi.
 Foetal physiology, circulation, Foetal growth and development
- 5. Bija Bijabhaga Bijabhagavayava janya garbhanga vikruthi. Genetics, Birth defects and other teratologic abnormalities
- 6. Garbhini nidana, sapekshanidana, Garbhakalina matrigata parivartana, lakshana, Dauhrida. Diagnosis and differential diagnosis of pregnancy, anatomical and physiological changes during pregnancy, Endocrinology related to pregnancy, Immunology of pregnancy.
- 7. Garbhiniparicharya, Masanumasika Pathya Apathya evum Garbha upaghatakara bhava. Ante Natal care, examination investigations and management,.
- 8. Garbhasankhya nirnay, Bahu apatyata, Multiple pregnancy.
- 9. Garbhavyapad causes, clinical features, complications, management and treatment of Garbhasrava and Garbhapata, Upavishtaka, Nagodara / Upashushka, Lina garbha, Goodagarbha, Jarayu Dosha, Antarmrita garbha, Garbha shosha, Garbha kshaya, Bhutahrita garbha, Raktagulma.

Abortions, I.U.G.R, Intrauterine Foetal death Ectopic pregnancy and gestational trophoblastic neoplasia,

10. Garbhini vyapad – nidana panchaka and chikitsa of garbhini vyapad.

Early recognition, differential diagnosis and prompt management of pregnancy complications, Emesis and Hyperemesis gravidarium, Anaemia, Pregnancy Induced Hypertension, Pre-eclampsia, Eclampsia, Antepartum hemorrhage, Rh-incompatibility.

Management of pregnancies complicated by medical, surgical or Gynecological disorders in consultation with the concerned specialties by team approach

- a. Pyrexia, Heart disease, Diabetes mellitus, Liver disorders, Respiratory diseases, Renal diseases, Epilepsy, Hypertensive disorders.
- b. Fibroids, Ovarian tumors, Genital prolapse, Carcinoma Cervix.

Infections in pregnancy:

Toxoplasmosis, Viral infections ,Rubella, CMV, Hepatitis-B, Herpes, Syphilis and other Sexually Transmitted Infections including HIV, Prevention of mother to child transmission of HIV infection (PMTCT).

- 11. Jataharini related to garbhini avastha
- 12. Evaluation of Foetal and maternal health in complicated pregnancies by making use of diagnostic modalities.
- 13. Prenatal diagnosis of fetal abnormalities and appropriate care. PNDT Act and its Implications.
- 14. Vishesh adhyayan of –

Sushrutasamhita sharira	- -		-1 st – Garbhavkranti -3 rd – Garbhavkranti - 8 th Jatisutriya
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PAPER – II Prasava – Vigyan

Prakrit prasav

- 1. Prasav paribhasha, Prasav kaal, Prasava prarambha karana, Prasava kalina garbha sthiti, Avi, Sutikagara.
 - a) Initiation and onset of parturition.
 - b) Examination and evaluation of patient in labour.
 - c) Physiology of labour.
 - d) Mechanism of labour.
 - e) Selection of place of delivery and labour room.
- 2. Prasava avastha evum paricharya
 - a) Stages of normal labour
 - b) Intrapartum maternal and foetal monitoring
 - c) Management of normal labour

Prasava vyapad

- 1. Etiopathogenesis, clinical features, prevention and management of Garbhasanga, vilambita prasav, Mudhagarbha and Apara sanga.
 - a. Prolonged labour
 - b. Cephalo pelvic disproportions
 - c. Malpresentation
 - d. Obstructed labour
 - e. Methods of Induction and Augmentation of labour
- 2. Complications of different stages of labour
- 3. Obstetric management of high risk Pregnancies- Pre eclamptic toxaemia, Eclampsia, Diabetes, cardiac disease, asthma, Epilepsy, ante partum haemorrhage, preterm premature rupture of membranes, , Preterm, Post term, Multiple pregnancy, IUGR & HIV -AIDS
- 4. Still birth- diagnosis, complications and management.

Jatamatra/ Navajata shishu paricharya

- 1. Examination and management of neonate.
- 2. Management of birth asphyxia.
- 3. Detection of congenital malformation in newborn and timely referral for correction.

Sutika vigyana

- 1. Sutika Paribhasha, kala maryada, paricharya.
- 2. Sutika vyadhi and their chikitsa.
- 3. Stana sampat, Stanya utpatti, Stanya sampat, Stanya pariksha, Stanya vriddhi, kshaya and dusti karana, lakshan and its Chikitsa, stana shotha, stana vidhradhi.
- 4. Suppression of lactation
- 5. Normal and abnormal puerperium.

Obstetric shock and management

- 1. Raktadhana: blood transfusion and replacement of blood constituents.
- 2. Management of fluid and electrolyte imbalance in obstetrics.

Drugs used in obstetric practice, indications/contra indications, doses and side effects.

Vishesha Adhyayana of –

Ashtanga Hridaya Sharira Sthana 2nd Adhyaya – Garbha vyapad Sushruta Samhita Nidana Sthana 8th Adhyaya – Mudhagarbha nidana Sushruta Samhita Chikitsa Sthana 15th Adhyaya – Mudhagarbha Chikitsa

PAPER – III Stree Rog vigyan

1. Disorders of menstruation and Female reproductive system.

- A) Congenital malformations of female genital tract
- B) Artav dushti, artava vriddi, artava kshaya, asrigdara, anartava, and kashtartav.
- C) Genital infections including sexually transmitted infections.
- D) Abnormal vaginal discharges.
- E) Arsha, Yonikanda, Gulma, Granthi, Arbuda.
- F) Abnormal uterine bleeding, Endometriosis, fibroid uterus, Adenomyosis, Polycystic ovarian syndrome and neoplasia of female genital organs.
- G) Endocrinological disorders affecting female reproductive system.
- H) Somarog.

2. Detailed study of yoni vyapad mentioned by different Acharyas with their commentaries and all possible correlations with modern gynecological diseases.

3. Vandhyatva

A) Hetu, Bheda, Pariksha, and Chikitsa.

B) Detailed study of causative factors, Investigations with recent advances in management of infertility, Adoption law.

4. Stanaroga

Detailed study of Stanashotha, Stanakilaka and stanavidradhi, stana granthi, stanarbuda.

Examination of breast, diagnosis and differential diagnosis of breast lump.

5. Measures of contraception

A) Ayurvedic view of Garbha nirodha and Garbhapatkara yogas.

- B) Temporary Contraception
- C) Recent studies in the field of contraception.
- D) National Health programme to improve maternal and Child health, social obstetrics and vital statistics (maternal and perinatal mortality).

6. Sthanik chikitsa

Detailed study of Pichu, Varti, Dhupan, Dhavana, Parisheka, Iepa, Kalkadharana, Uttarabasti, agnikarma and kshara karma.

- 7. Rajo Nirvritti Climacteric and menopause.
 - Geriatric health care

8. Study of modern diagnostic techniques and Investigations.

- 9. Important drugs used in Streerog.
- 10. Panchakarma in streerog
- 11. Vishesha Adhyayana of -

Charaka Samhita Chikitsa Sthana – 30th Adhyaya - Yonivyapad Chikitsa Sushruta Samhita Uttara Tantra - 38th Adhyaya – Yonivyapad Pratishedha Kashyapa Samhita Kalpa Sthana - Shatapushpa Shatavari, Lashuna kalpa Adhyaya

PAPER – IV Prasuti–Streerog-Shalya Karma

General principles of Gynecological and Obstetric Surgeries. Analgesia and Anaesthesia in Obstetrics and Gynaec operative procedures.

Operative Obstetrics

Decision making, techniques, diagnosis and management of surgical complications.

Dilatation and evacuation, Hysterotomy, Provision of safe abortion services –selection of cases, technique and management of complications, septic abortion, criminal abortion, MTP Act.

Cervical encirclage.

Instrumental delivery (Forceps, vacuum extraction), Caesarean Section, Manual removal of Placenta, Caesarean Hysterectomy.

Operative gynecology

Selection of cases, technique and management of complications of minor and major gynecological procedures.

Dilatation and Curretage, Cervical cauterization.

Polypectomy, Myomectomy, Cystectomy, Oophorectomy.

Surgical sterilization procedures.

Hysterectomy.

Surgical procedures for genital prolapse.

Surgical management of benign genital neoplasm.

Recent advances in Gynaecology and obstetrics – Diagnostic and therapeutics

Shock and its management, Blood Transfusion, Fluid and electrolyte imbalance, Fluid therapy.

Record keeping, ethical and legal issues involved in obstetrics and gynaecology.

Medico-legal aspects – ethics, communication and counselling in obstetrics and Gynecology Intensive care in Obstetrics and Gynecology.

Content of Practical

- 1. Practical training to conduct
 - Normal and Complicated deliveries
 - Assisted/ Instrumental deliveries
 - Caesarean Section
 - Neonatal resuscitation
- 2. Practical knowledge of grabhini pricharya, sutika pricharya and masaanumasik garbha vriddhi.
- 3. Practical training to perform obstetrical and Gynaecological Surgery
- 4. Practical training to provide family welfare/ Planning services, safe abortion methods along with surgical sterilization.
- 5. Practical knowledge and practice of all relevant equipment, Procedures, complications, Emergencies with their management.
- 6. Practical knowledge of Yogasanas and pranayam useful in Stree rog and Prasuti tantra.
- 7. Practical knowledge of Panchakarma and Sthanik Chikitsa used in Stree Rog and Prasuti Tantra.
- 8. Practical Knowledge of recent advances in Gynaecology and obstetrics.

Pattern of Practical Examination

	Practical Record Book Bed side examination	- 20 Marks
	Short Case	- 20 Marks
	Long Case	- 40 Marks
3.	Identification of the Instruments/x-ray/USG plate	- 20 Marks
4.	Thesis Presentation	- 50 Marks
5.	Viva Voce	- 50 Marks

Reference Books-

- 1. Related matter from all tha 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- Williums
- 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 Saddler.
- 13. Jeffcoat's principles of gynaecology
- 14. Te linde's gynaecological surgery.

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11. KAYACHIKITSA

PAPER- I Fundamentals of Kayachikitsa

1. Rogi-Roga Pariksha: Nidan Panchak, Trividha pariksha, Ashtavidhapariksha, Dashvidhapariksha in the light of recent advances. Clinical methods-Detailed history taking and patient examination, Systemic examination as per ayurveda and recent advances.

- 2. Interpretation of common investigations: ECG, Echo cardiography, TMT, Spirometry, Xray, USG, CT-Scan, MRI, EEG, EMG, in different pathological conditions.
- 3. Detailed Knowledge of Principles of Chikitsa in Ayurveda. Types of Chikitsa. Principles and practices of Rasavana and Vaiikarna.
- 4. National Health Programmes and prospective role of Ayurveda services and therapeutics in them.
- 5. Medical ethics, Common laws and regulations applicable to clinical practice.
- 6. Elaborate knowledge of undertaking common medical procedures like Ryle's tube feeding, tapping, transfusions, catheterization, tractions.
- 7. Ayurveda Dietetics: importance of Pathya, Apathya and Anupana.
- 8. Drug-drug interactions and adverse drug reactions, latrogenic disorders.

PAPER – II Samanya Roga Chikitsa

100 marks

Nidana/ Chikitsa including Nidana Parivarjana, Pathya, Apathaya, Chikitsa siddhanta, Shamana, Shodhana, Panchakarma, Rasayana and Atyayika Chikitsa (Anupana, Drug/Nondrug) as per Ayurvedic and conventional therapeutics of following Srotogata vyadhi:

1. Pranavahasrotas: Shwasa, Hikka, Kasa, Rajayakshma, Hridroga, Parshwashoola, Urakshata, Svarabheda Cardio-respiratory system: Bronchitis, Bronchiactasis, Bronchial asthma, COPD, Corpulmonale, Pneumonias, Occupational lung diseases, Pulmonary tuberculosis,

Congenital Heart disorders, IHD, RHD- Valvular diseases, Cardiac failures, Cardiomyopathy, Pericarditis, Endocarditis, Hypertension,.

2. Annavahasrotas: Agnimandya, Ajirna, Aruchi, Amadosha, Amlapitta, Chhardhi, Shoola, Grahani.

Gastrointestinal disorders: GERD, APD, Malabsorption Syndrome,

- 3. Udakavahasrotas: Trishna, Shotha, Udararoga, water and electrolyte imbalance
- 4. Rasavaha srotas: Jwara, Amavata, Pandu, Madatyaya, Anaemias, Rheumatoid arthritis, Substance abuse disorders.
- 5. Raktavaha Srotas: Raktapitta, Kamala, Vatarakta, Kushtha, Kshudraroga, Sheetpitta, Udarda, Kotha, Visarpa, Shvitra. Haemopoeitic disorders, Bleeding and Coagulation disorders, Leukaemias, Thrombocytopenia, Disorders of Bone Marrow, Hepatobiliary disorders, Hepatitis, Cirrhosis, Cholecystitis, Liver abscess, Jaundice, Dermatological disorders, Parasitic, Infective, Allergic, Autoimmune skin disorders, Eczemas,
- 6. Mamsa-Medovahasrotas: Medoroga, Sthaulya, Prameha, Galaganda, Gandamala, Urustambha, Diabetes mellitus, over weight.
- 7. Asthi-Majjha vahasrotas: Asthikshaya, Sandhigatavata, Osteoarthritis, Osteopenia
- 8. Shukravahasarotas: Such as Kalibya, Dwajabhanga. Impotence
- 9. Mutravahasrotas: Mutrakricchra, Mutraghata, Ashmari, Urinary disorders: UTI, Lithiasis, ARF, CRF, Uraemia, BPH.
- 10. Purishvaha srotas: Atisara, Pravahika, Anaha, Adhamana, Krimi, Udavarta, Enteritis, Dysenteries, Ulcerative colitis, IBS, Worm infestation.

PAPER – III Vishishta Roga Chikitsa

100 marks.

Comprehensive knowledge of etiology, demography, pathogenesis, symptomatology, complications, investigations, diagnosis and drug/non-drug management of following diseases as per Ayurveda/ Conventional therapeutics:

100 marks

1. Vata-Vyadhi- Pakshavadha, Adharanga Vata, Sarvanga Vata, Ananta Vata, Gata Vata, Gridhrasi, Ardita, Akshepaka, Apatantraka, Ekangvata, Vishvachi, Avabahuka, Avarana.

Musculoskeletal disorders: Myopathies, G B Syndrome, Muscular dystrophies, Lumbago

Neurological disorders: Neurodegenerative disorders like Alzeihmer's, Parkinsonism, CVA, Neuropathies, Facial palsy, Motor Neuron Diseases, Epilepsy, Sciatica.

- 2. Sankramakroga: Sheetala, Masoorika, Updansha, Phiranga, Gonorrhea, Chancroids, Syphilis,
- 3. Manasa vyadhi; Unmada, Apasmara, Atatvavinivesha, Mada, Moorcha, Sanyasa. Common psychiatric disorders: Classification of psychiatric ailments. Disorders of thought like Schizophrenia. Disorders of Mood like Mania, Depression. Neurosis, personality disorders, psychosexual disorders.
- 4. Metabolic disorders: Gout, Dyslipidaemia, Atherosclerosis, Obesity.
- 5. Endocrinal disorders; Disorders of Pituitary, Thyroid, Adrenal Medulla, Reproductive hormones.
- Parasitic/Infective/Communicable disorders: Shlipada, Filariasis, Vishama Jvara, Malaria, Manthara Jwara, Enteric Fever, Dengue, Chickenpox, Measles, Influenza, Kalaazar, Mumps, Rabies, Poliomyelitis, Plague, Meningitis, Encephalitis, Chickungunya, HIV/AIDs, Common worm infestations.
- 7. Common neoplastic disorders and their management strategies. Role of Ayurveda medicines in cancer care including palliative care.
- 8. Autoimmune diseases: Myopathies, Rheumatic fever, SLE.
- 9. Common poisonings and their management like Insecticide/Pesticide poisoning, Snake poisoning, Vegetable and chemical poisoning.
- 10. Janapadodhvamsa Vikara. Environmental diseases and their management.

PAPER – IV Advances in Kayachikitsa

Critical care medicine, Management of medical emergencies, ICU services, Field medical services

- 1. Hospital management strategies, Infrastructure, use of IT technology, essential manpower, equipment, Patient care, management and coordination with contemporary health institutions and field institutions.
- 2. National Health Campaigns of AYUSH and components under NRHM.
- 3. Clinical Research in Kayachikitsa and its application in clinical medicine as per new evidence base in different systemic disorders.
- 4. New emerging health challenges and ayurvedic medicines: Chickangunya, HIV/AIDs, Swineflu, Chickenflu, Dengue, Restless leg syndrome, Sick building syndrome, Fibromyalgia.
- 5. Role of Ayurveda in immune-protection, immuno-modulation and in management of other allergies and immunological disorders.
- 6. Indications and importance of Organ transplantation, Ethical and legal issues involved.
- 7. Knowledge of Geriatric care and terminal care medicine.
- 8. Basic knowledge of Gene therapy, Stem cell therapy, Genetic modeling and chromosomal disorders in different disease conditions.
- 9. Radio-isotopes, disease and tumor markers in diagnosis and assessment of therapy.
- 10. Scope and methods of independent and collaborative research in Kayachikitsa.
- 11. Disaster management strategies.
- 12. Application of advances in Rasayana and Vajikarana therapies
- 13. Application of emerging trends in Panchakarma in medical management.
- 14. Physical medication and rehabilitation.

PRACTICALS

Practicals shall be held to evaluate the patient care, diagnostic and treatment expertise of the student. It should also be taken as a chance to evaluate the clinical skills.

Clinical Ability Evaluation-60 marks based on 1. Case records of 40 IPD Patients in Detail 10 marks 2. Long case History-1: 20 Marks 3. Short Case history-1 : 10 Marks 4. Medical procedures demonstration/ Panchakarma procedure 20 Marks. Academic Competence evaluation- 40 marks based on: 1. Viva 30 Marks. 2. Teaching and communication skills: 10 Marks. **Reference Books** 1. Relevant portions of Brihattrayi and Laghutrayi with commentaries 2. Cikitsadarsha- Pandit Rajeshvar Dutta Shastri - Ramaraksha Pathak 3. Kayachikitsa 4. Rog Pariksha Vidhi - Priyavrat Sharma 5. Panchakarma Vigyan - Haridas Sridhar Kasture 6. Ayurvediya Nidana- Chikitsa Siddhanta - Prof. R.H.Singh. 7. Kayachikitsa Vol. 1 and 2 - Prof. R.H.Singh. 8. The Holistic Principles of Ayurvedic Medicine - Prof. R.H.Singh. 9. Essentials of Kayachikitsa -II, Vol. 1 - Dr. Aruna 10. Kavachikitsa Vol. I-IV. - Prof. Ajay Kumar 11. Panchakarma Therapy - Prof.R.H.Singh 12. Panchakarma Illustrated -Prof.G.Shrinivasa Acharya 13. Practice of Ayurvedic Medicine(Kayachikitsa) - Prof.A.K. Tripathi 14. Nidanachikitsa Hastamalaka - Prof. R.R.Desai 15. Clinical Methods in Avurveda - Prof. K.R. Srikantamurthy 16. Aushadhi Gunadharma Shastra - Gangadhar shastri Gune 17. Introduction to Kayachikitsa - Prof. C. Dwarakanath 18. Samprapti lakshnanayoh Sambandhah - Prof.Sadashiv Sharma - Prof.S.C.Dhyani 19. Nidana Panchak 20. Kavachikitsa - Prof.S.C.Dhyani 21. Davidson's Principles and Practice of Medicine. 22. API Text Book of Medicine. 23. Harrison's Text Book of Medicine. 24. Cecil Text Book of Medicine.

25. Relevant texts of concerned subjects.

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21. PANCHKARMA

PAPER-I Purva Karma-Snehana and Svedana

- 1. Panchkarma in Ashtanga Ayurved and Significance of Shodhana
- 2. Ama and Shodhana, benefits of Shodhana, Samikshya Bhavas in Shodhana,
- 3. Importance of Pachana prior to Snehana, methods, drugs, duration and dose for Pachana, samyak Lakshana of Pachana

Snehana

- 1. Etymology and definition of Sneha and Snehana
- 2. General considerations about Snehana
- 3. Classifications of Sneha, Sneha-Yoni, detailed knowledge of four types main Sneha-Ghrita, Taila, Vasa and Majja with their characteristics, importance and utility, various aspects of Uttama Sneha
- 4. Properties of Snehana Dravya and their interpretation
- 5. Effects of Snehana
- 6. Sneha Kalpana, various types of Sneha Paka with their utility
- 7. Indications and contraindications of Snehana
- 8. Classification of Snehana: Bahya and Abhyantara Snehana
- 9. Bahya Snehana and Bahir-Parimarjana, utility and importance of Bahya Snehana
- 10. Classification of Bahya Snehana

Methods, indications, contraindications, specific utility of the followings Abhyanga, Mardana, unmardana, Padaghta, Samvahana, Udvartana/Utsadana, Udgharshana, Avagaha, Pariseka, Lepa, Pralepa, updeha, Gandusha, Kavala; Karana and Nasa Purna, Akshi Tarpana; Murdhni Taila: Shiro-abhyanga, Shirodhara, Siro Pichu and Siro Basti, Shiro Lepa (Talapotichil), Talam and Takradhara, etc.

- 11. Knowledge of digestion and metabolism of fat
- 12. Karmukata of Abhyantara and Bahya Snehan
- 13. Knowledge of different western massage techniques
- 14. Abhyantra Snehana: Brimhnartha, Shamanartha and Shodhanartha, definition, method and utility of Brimhanartha and shamanrtha Snehana; difference between Shamanartha and Shodhanartha Snehana
- 15. Methods of Abhyantar Snehana
- 16. Shodhanartha Snehana: Acchapana and Vicharana, Utility and various methods of Sadyasnehana, Avapidaka Sneha
- 17. Matra of Sneha : Hrasiyasi, Hrasva, Madhyama and Uttma Matra with their indications, specific utilty of Ghrita, taila, Vasa and majja; Anupana of Sneha
- 18. Need and method of Rukshana before performing Snehana in specific conditions and Samyak Rukshana Lakshana
- 19. Shodhannga Snehana Vidhi and methods of fixation of dose
- 20. Diet and Pathya during Snehana
- 21. Observation of sneha Jiryamana, Jirna and Ajirna Lkashana
- 22. Samyak, Asnigdha and Ati Yoga Lakshana of Snehana
- 23. Snehs vyapta and their management
- 24. Pariharya vishaya and Parihara Kala

Svedana

- 1. Etymology and definition of Svedana
- 2. General considerations about Svedana
- 3. Properties of Svedan and Svedopaga Dravya
- 4. Indications and contraindications of Svedana
- 5. Various Classifications of Sveda and Svedna
- 6. Detailed knowledge of four types of Sveda of Sushruta with their utility;

- 7. Hina, Mridu, Madhya and Mhana Sveda; Ekanga and Sarvanga sveda with their utility
- 8. Utility and method of each of 13 types of Sagni and 10 types of Niragni Sveda
- 9. Shodhannga and Samshamaniya Šveda
- 10. Methods to protect the vital organs (varjya anga) during Svedan Procedure
- 11. Detailed Knowledge about Utility of below mentioned Svedan procedures:-Patrapinda Sveda, Shashtika Shalipinda Sveda, Churna Pinda Sveda, Jambira Pinda Sveda, Dhanya Pinda Sveda, Kukkutanda Sveda, Anna lepa, Valuka Sveda, Ishtika Sveda, Nadi Sveda, Bashpa Sveda, Kshira bashpa Sveda, Avagaha Sveda, Parisheka Sveda, Pizichil, Dhanyamla Dhara, Kashaya Dhara, Kshira Dhara and Upanaha Sveda.
- 12. Avasthanusari Svedana in various disorders
- 13. Samyak, Ayoga and Atiyoga Lakshana, Sveda Vyapat and their management
- 14. Diet and regimens during and after Svedana
- 15. Karmukata of Svedana
- 16. Current sudation modalities like Sauna bath, Steam Bath, Infrared, etc.
- 17. Svedana with Kati Basti, Janu Basti and Griva Basti
- 18. Study of Snehana and Svedana related portions in classics with commentaries

PAPER – II Vamana and Virechana Karma

Vamana Karma

- 1. Etimology, definition and general considerations of vamana
- 2. Properties of Vamaka and Vamanopaga drugs
- 3. Knowledge and utility of important Vamaka drugs and their preparations (Vamana Yoga)
- 4. Avasthanusara Vamana and its utility.
- 5. Indications of Vamana
- 6. Contraindications of Vamana with reasons
- 7. Pachana prior to Snehana
- 8. Detailed knowledge and method of preparation of patient with Snehana
- 9. Abhyanga and Svedana as Purvakarma of Vamana
- 10. Diet and management of gap day
- 11. Need of increasing of Kapha for proper Vamana, Kapha increasing diet
- 12. Management of Patients on the morning of Vamana
- 13. Administration of food articles prior to Vamana
- 14. Drug, time, Anupana, Sahapana, dose and method of administration of Vamana and Vamanopaga preparations
- 15. Method of Vamana Karma, waiting period for automatic Vamana Vega and manipulation in its absence
- 16. Observations prior to beginning of Vamana such as sweat on forehead, horripilation, fullness of stomach and nausea
- 17. Observation and assistance of the patient during Vamana
- 18. Vega and Upavega of Vamaana and its counting, observations and preservation of vomitus matter and its weighing
- 19. Samyak, Ayoga and Atiyoga of Vamana
- 20. Laingiki, Vaigiki, Manaki and Antiki Shuddhi,
- 21. Hina, Madhya and Pravara Shddhi and Samsajana Krama accordingly
- 22. Detail knowledge of methods of Samsarjana Krama and its importance
- 23. Kavala and Dhumapana after vamana
- 24. Management of Ayoga, Atiyog and Vyapat of Vamana with Ayurveda and modern drugs
- 25. Parihara Vishaya and Kala for Vamana

26. Vamana Karmukata with Pharmaco-dynamics of Vamana

Virechana Karma

- 1. Etymology, definition and general considerations of Virechana
- 2. Importance of Vamana and Virechana as shodhana, Virechana better than Vamana
- 3. Necessity of Vamana prior to Virechana
- 4. Preparation of patients for Virechana after Vamana
- 5. Preparation of patients directly for Virechana
- 6. Properties of main Virechaka and Virechanopaga drugs, Classifications of Virechana drugs with definition, example and utility of each type
- 7. Indications of Vamana Karma
- 8. Contraindications of Virechana with reasons
- 9. Utility of Virechana for the specific conditions and stages of the disease
- 10. Internal Snehana for Virechana with diet
- 11. Management of 3 gap day with diet and importance of low Kapha for proper Virechana
- 12. Abhyanga and Svednana as Purvakarma of Virechana
- 13. Management of Patients on the morning of Virechana
- 14. Virechana should be performed in empty stomach
- 15. Drug, dose, time, Anupana, sahapana and method of administration of Virechana and Virechanopaga preparations
- 16. Method of performing of Virechana Karma
- 17. Observations during Virechana, Vega and Upavega of Virechana and its counting, observations and preservation of fecess and its weighing
- 18. Samyak, Ayoga and Atiyoga of Virechana
- 19. Laingiki, Vaigiki, Manaki and Antiki Shuddhi of Virechana
- 20. Hina, Madhya and Pravara Shddhi and Samsajana Krama accordingly
- 21. Detail knowledge of methods of Samsarjana Krama and its importance, and Tarpana krama and its importance
- 22. Management of Ayoga, Atiyog and Vyapat of Virechana with Ayurveda and modern drugs
- 23. Parihara Vishaya and Kala for Virechana
- 24. Virechana a Karmukata with Pharmaco-dynamics of Virechana
- 25. Applied anatomy and physiology of Gastrointestinal system related with Vamana and Virechana
- 26. Study of Vamana and Virechana related portions in classics with commentaries
- 27. Recent advances of researches on the effect of Vamana and Virechana
- 28. Scope of research for Vamana and Virechana.
- 29. Role of Vamana and virechana in promotion of health prevention and treatment of diseases

PAPER – III Basti Karma and Nasya Karma

Basti Karma

- 1. Etymology, definition and general considerations of Basti
- 2. Importance of Basti in Kayachikitsa and other branches of Ayurveda
- 3. Classifications of Basti
- 4. Drugs useful in Basti
- 5. Indications of Basti, its role at the various stages of diseases
- 6. Contraindications of Basti with reasons
- 7. Description of Basti yantras, Basti netra and Basti putaka and their Doshas. Modified Basti Yantra, their merits and demerits

8. Dose schedules of Niruha and Anuvasana basti

Niruha basti

Etymology, synonyms, definition and classifications and subclassifications of Niruha Basti and detailed knowledge of each type of Niruha Basti along with indications and contraindications and benefits

Contents of various types of Niruha Basti, their peoportions, methods of mixing basti Dravya,

Relation of Virechana, Shodhana, Anuvasana Basti with Niruha Basti

Purvakarma for Niruha Basti; Pathya before, during and after Niruha Basti; all the aspects of administration of various Niruha Basti

Observations during and after Niruha Basti

Basti Pratyagamana,

Samyakyoga, Ayoga and Atiyoga Lakshana and Various Vyapat of Niruha Basti and their management according to Ayurved and Modern Systems of Medicines Management during and after Niruha Basti

Pariharya vishaya and pariharakala,

Anuvasana basti

Etymology, synonyms, definition and classifications of Anuvasana Basti and detailed knowledge of each type of Anuvasana Basti along with indications and contraindications and benefits

Various types of Ghrita and Taila useful in Anuvasana Basti; Anuvasana Basti with Vasa and Majja along with their merits and demerits

Relation of Virechana, Shodhana, Niruha Basti, Snehana with Anuvasana Basti Purvakarma for Anuvasana Basti; Pathya before, during and after Anuvasana Basti; all the aspects of administration of Anuvasana Basti including Kala

Observations during and after Anuvasana Basti

Anuvasana Basti Pratyagamana,

Samyakyoga, Ayoga and Atiyoga Lakshana and Various Vyapat of Anuvasana Basti and their management.

Management during and after Anuvasana Basti

Pariharya vishaya, Pathya and pariharakala for Anuvasana

Various combined basti schedules such as Karma, Kala, yoga Basti etc.

Detailed knowledge of Matra Basti

Detailed Knowledge of different basti formulations like Piccha Basti, Kshira Basti, Yapana Bastis, Madhutailika Basti, Erandamuladi Niruha Basti, Panchaprasrutika Basti, Kshara Basti, Vaitarana Basti, Krimighna Basti, Lekhana Basti,Vrishya Bsti,Manjishtadi Niruha Basti,Dashamula Basti, Ardhamatrika Basti,Sarva roghara Niruha Basti,Brimhana Basti, Vataghna Basti, Pittaghna Basti and Kaphaghna Basti etc, and their practical utility.

Uttara basti

- 1. Definition and Classification of Uttara Basti, its Netra and Putaka. Dose of Uttara Basti Sneha and Kashaya Basti. Different Uttara Basti Kalpanas in various diseases.
- 2. Detailed knowledge of Purvakarma and Administration of uttara Basti in male and female, precautions, aseptic measures, complications and thier management Karmukata of Basti. Applied anatomy and physiology of colon, Pharmaco-dynamics of Basti.
- 3. Concept of 'Gut Brain' and its relevance to Basti Therapy.
- 4. Study of relevant portions of Basti in classics with commentaries.

Nasya Karma

- 1. Etymology, synonyms, importance and definition of Nasya
- 2. Nasya drugs according to various Samhita

- 3. Classifications and sub-classifications of Nasya with detailed knowledge of each type
- 4. Indications and contraindications of each type of Nasya with reasons
- 5. Drugs useful for Nasya with Dose and methods of preparations and their doses
- 6. Nasya Kala and Pathya before, during and after Nasya; Duration of different Nasyas
- 7. Purvakarma of each types of Nasya
- 8. Detailed knowledge of administration of each type of Nasya with management during and after Nasya.
- 9. Detailed knowledge of common Nasya formulations such as Shadabindu Taila, Anu taila, Kshirabala Taila, Karpasastyadi Taila, Bramhi Ghrita.
- 10. Samyak yoga, Ayoga and Atiyoga of each types of Nasya, its Vyapat and their management
- 11. Pashchata Karma; Role of Dhumapana, Kavala after Nasya,
- 12. Diet and Pathya before, during and after Nasya Karma
- 13. Pariharya vishaya, Parihara Kala,
- 14. Nasya Karmukata, Applied anatomy and physiology related to Nasa hi Sirso Dvaram, blood and nerve supply to nose, Shringataka marma, olfactory nerve and centers, aroma therapy, trans nasal administration of drug, recent advances in nasal drug delivery
- 15. Study of relevant portion in classics with commentaries

PAPER – IV Raktamokshana, Physiotherapy and Diseasewise Panchakarma

A. Raktamokshana-33 Marks

- 1. Definition, importance, classifications and detailed knowledge of each type of Raktamokshana with their methods of performance
- 2. General principles, indications, contraindications of Raktamokshana
- 3. Detailed knowledge of Jalaukavacharana: Indications and contraindications of Jalaukavacharana, various types of Jalauka with their beneficial and harmful effects.
- 4. Purvakarma and method of Jalaukavacharana, observations and Pathya before, during and after Jalaukavacharana
- 5. Management during and after Jalaukavacharana
- 6. Symptoms of Samyak, Ayoga and Atiyoga and Vyapat of of Raktamokshana and their management with Ayurveda and Modern medicines.
- 7. Pariharya vishaya and Parihara kala
- 8. Karmukata of different types of Raktamokshana

B. Clinical Physical Medicine-33 Marks

- 1. Definitions and terminology
- 2. Biomechanics of human movements; Physiology of exercise
- 3. Treatment modalities used in Physical Medicine- general properties and detailed clinical use of each
- a. Heat general physiological properties and mode of action as a treatment agent, Forms of heat therapy – superficial and deep heating. General knowledge of Infrared, Paraffin Wax bath, short wave diathermy, electro magnetic therapy, ultra sound therapy, convection heating devices,
- b. Cold as a therapeutic agent
- c. Prescription of physical modalities and their applications in medicine.
- 4. Clinical use of massage, manipulation, stretching
- Principles of occupational therapy, training in activities of daily living for rehabilitation, self-help devices (walking aids, wheelchairs, tricycles & modified vehicles), instrumental activities of daily living,
- 6. Physiotherapy exercises for Paralytical disorders, cervical spondylosis, frozen shoulder and slip disc.

C. Disease-wise Panchakarma-34 Marks

Role of Panchakarma in Different Stages of the following Diseases:

Jvara, Raktapitta, Madhumeha, Kushtha, Shvitra, Unmada, Apasmara, Shotha, Plihodara, Yakridaluodara, jalodara, Arsha, Grahani, Kasa,Tamaka Shwasa, Vatarakta, Vatavyadhi, Amlapitta, Parinama Shula, Ardhavabhedaka, Ananta Vata, Amavata, Sheetapitta, Shleepada, Mutrakruchchra, Mutrashmari, Mutraghata, Hrudroga, Pinasa, Drushtimandya, Pandu, Kamala, Sthaulya, Krimi, Madatyaya, Moorchcha, Padadari, Mukhadushika, Khalitya, Palitya,

Use of Various panchakarma Procedures in the following disorders -

Migraine, Parkinson's Diseasse, trigeminal neuralgia, Bell's palsy, cerebral palsy, Muscular dystrophy, hemiplegia, paraplegia, Lumbar Disc disorders, Spondylolisthesis, Ankylosing spondylosis, Carpel Tunnel Syndrome, Calcaneal Spur, Plantar fascitis, GB syndrome, Alzhiemer's disease, Irritable Bowel Syndrome, ulcerative colitis, psoriasis, hypothyroidism, hyperthyroidism, hypertension, allergic rhinitis, , Eczema, diabetes mellitus, Chronic obstructive pulmonary Disease, Insomnia, Rheumatoid Arthritis, Gout, Osteoarthritis, multiple sclerosis, SLE, male & female infertility, cirrhosis of liver, Jaundice, General Anxiety Disorders,

Referance Books:

1	Charak Samhita with commentary of Ayurved Dipika by Chakrapanidatta and Jalpakalpa taruby Gangadhara	Agnivesha
2	Sushrutha Samhita with the Nibhandha Samgraha commentary of Dalhana and Nyayachandrika panjika of Gayadasa on nidansthana	Sushrutha
3	Ashtang Hridaya with Sarvanga sundara and	Vaghbhata
	Ayurved rasayana commentaries Ashtanga Sangraha with Shashilekha commentery Bhela Samhita	Vaghbhata
	Kashyapa Samhita	
	Bhavaprakasha of Bhavamishra	
	Sharangadhara Samhita	
	Vangasen Gadanigraha	
4	Ayurvediya Panchkarma chikitsa	Dr Mukundilal Dwivedi
5	Panchkarma Vigyan	Dr Haridas Shreedhar Kasture
6	Illustrated Panchkarma	Dr.G Srinivasa Acharya
7	Ayurveda-Principles and Practice of Panchakarma	Dr. Mandip and Dr Gurdip Singh
8	The Panchkarma Treatment of Ayurved with Kerala Specialities	Dr. T.L. Devaraj
9	Panchkarma Therapy	Dr. R.H. Singh
10	Principles and practice of vasti	Dr. Vasudevan Nampoothiri and Dr. L. Mahadevan
11	Claiton's Physiotherapy	
12	Teddy's Physiotherapy	
13	Harrison's Principles of Inernal Medicines	
14	Guyton's Physiology	
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18. AYURVEDA DHANWANTRI-SHALAKYA - NETRA ROGA

Theory Four papers of- 100 marks each Practical and Viva-voce - 100 marks

PAPER- I Netra Rog Vangmaya

- 1. Available literature of Netra roga vigyana in Brihattrayi, Laghuttrayi, Yogaratnakar, Chakradutta, Bhel Samhita, Harita samhita and Kashyap samhita.
- 2. Critical analysis of the available literature of netra roga vigyana in the above given classics e.g. Puyalasa and Vatahata Vartma In Sushruta samhita and Vagabhat samhita.
- 3. Unique/ specific contribution of different classics, Acharyas and commentators in the development of Netra roga vigyana.
- 4. Analytical determination of subjects related to eye disorders in ancient and modern literatures.
- 5. Update chronological development of Netra roga vigyana right from Vedic period.
- 6. Update chronological development of Ophthalmology.

PAPER- II Ayurvediya Netra Rog Vigyan

- 1. Enumeration and classification of Netra Rogas.
- 2. Descriptive knowledge of *etiology*, *pathogenesis*, *prodomal symptoms*, *clinical features*, *complications and prognosis of* pakshma -vartma- *sandh*i- shukla-Krishna- dristi & sarvagata rogas along with exogenous eye diseases available in Ayurvedic classics. Medical and surgical Management of the above diseases with special skill development in Ashtavidha shastra & Trividha Anushastra chikitsa related to Netra roga.
- 3. Netra kriya kalpa procedures like seka, ashchyotana, vidalaka, pindi, tarpan, putapaka & anjana and their practical application and analysis based on ocular pharmacology. Standard operative procedures for Kriyakalpas including Aushada kalpanas.
- 4. Study of nayanabhighata and , its management and prevention.
- 5. Knowledge of preventive and community ophthalmology along with national programme for control of blindness and role of Ayurveda.
- 6. Ayurvedic Concept of Congenital, developmental and neoplastic diseases of netra.

PAPER – III Adhunik Netra Rog Vigyan

- 1. Knowledge and application of current diagnostic techniques and equipments and therapeutics in Ophthalmology.
- 2. Detailed study of refractive errors along with defects of accommodation and their management.
- 3. Detailed knowledge of classification, etiology, pathogenesis, signs and symptoms, differential diagnosis, prognosis and complications of diseases of eye orbit, lacrimal apparatus, lids, conjunctiva, cornea, sclera, uveal tract, lens, vitreous, retina, optic nerve and visual pathway with comprehensive knowledge of their medical and surgical management.
- 4. Ocular trauma, its emergencies and management.
- 5. Ocular motility disorders and their medical and surgical management
- 6. Neurological and systemic disorders affecting the eyes and their management.

PAPER – IV Recent Advances in Netra Chikitsa & Ophthalmology.

1. Update advances in the development of Ayurvedic drug formulations, therapeutic procedures and treatments of Netra roga.

- 2. Advanced technologies in the diagnosis of eye diseases.
- 3. Advanced technologies & techniques in the medical & surgical management of Netra roga.
- 4. Advanced management and technologies in Ophthalmology.
- 5. Detailed study of recent research works on chakshushya dravyas.
- 6. Comparative and critical study of modern advances in surgical techniques over the surgical methods described in Ayurvedic classics

Pattern of practical/Clinical training

- 1. Posting in OPD, IPD, OT & Kriya kalp Kaksha.
- 2. Case presentation ,clinical discussion, Seminars & Work shops.
- 3. Skill development in Ashtavidha shastra karma, Trividha Anushastra Karma and Modern Ophthalmic Surgical procedures viz lid surgery, pterygium surgery, cataract surgery, squint surgery, glaucoma surgery, DCR & DCT ect.

Methods of Training

- Intensive integrative training would be imparted to scholars in understanding the classical Ayurvedic aspects with an emphasis of critical comparative interpretation.
- Mandatory participation of scholars in seminars, group discussions, clinical demonstrations, journal review meetings, case study, continuing education activities and research clinical projects.
- During the first year course the emphasis would be laid to impart adequate knowledge on fundamental aspects and their applications, with a focus on latest diagnostic tools, instrumentations and laboratory procedures. Practical orientation and hospital based clinical training is an integral part of the curriculum all through.
- In the second year ,training would stress upon extending the knowledge on techniques and imparting skill for surgical performaqnce, ophthalmic procedure based therapies, surgical/para surgical procedures so that the scholar is able to perform ophthalmic surgical procedures like Ashtavidha shastra karma, Trividha Anushastra Karma and Modern Ophthalmic Surgical procedures viz lid surgery, pterygium surgery, cataract surgery, squint surgery, glaucoma surgery, DCR & DCT ect independently.
- In the third year the scholar should concentrate on the clinical work and research work based on the dissertation.
- The participation of the scholars in all the aspects of educational process is mandatory.
- Hospital postings The student has to work for 6 terms of resident posting is compulsory out of which first 2 postings will be as a junior resident and the next four postings will be as a senior resident.
- The student should also develop in the academic work of the department.

Pattern of Practical Examination

1. Bed side examination	
Short Case 2 of 10 marks each -20 Mar	[.] ks
Long Case -20 Mar	[.] ks
2. Identification of specimen / Instrument / Radiograph -10 Mar	[.] ks
3. Thesis Presentation / Viva -10 Mar	[.] ks
4.Teaching skill -10 Ma	rks
5. Viva Voce -30 Mar	ks

Reference Books

- 1. Charka Samhita with commentaries
- 2. Sushrut Samhita and vaghbhata with commentaries
- 3. Astanga hridaya and Astanga sangraha with commentaries
- 4. Madhava nidan with commentaries
- 5. Bhavaprakasha with commentaries
- 6. Sarangadhara Samhita with commentaries
- 7. Sahstrayoga Sangraha
- 8. Relevent part of Chakradhatta, Bhel Samhita, Harita Samhita
- 9. Shalakya Tantra
- 10 Shalakya Tantra
- 11 The Actions and uses of Indigenous Ophthalmic Drugs
- 12 Clinical Examination of Ophthalmic Cases
- 13 Alder's Physiology of the Eye and Clinical Applications
- 14 Disease of the Lens and Vitrous, Glaucoma and Hypotony
- 15 A Text Book of Ophthalmology
- 16 A Text book of clinical ophthalmology
- 17 Modern Ophthalmology
- 18 Manual of the Diseases of the Eye

Bailliere Tindal and Castell 19 Ophthalmology – Principles and Concepts

- 20 Ocular Differential Diagnosis
- 21 Clinical Ophthalmology
- 22 Abrahm Manual of Refraction
- 23 Hand Book of ophthalmology
- 24 Hand Book of ophthalmology
- 25 Clinical ophthalmology
- 26 Parsons Diseases of Eye
- 27 Stallard's Eye Surgery

- Ramanath Dwivedi
- R.C. Chaudhary
- N.Srikanth
- Agarwal and Gupta
- Cotlier, St. Louis
- Duke Elder, St. Louis
- Ahmed E.
- Dhanda
- Dutta, L.C. Jaypee Brothers
- May,C. and Worth, C.
- Newell, F.W., C.V.
- Mosby Co., St. Louis.
- Roy Fedrick Hamptn Lea and Febiger
- Smith, R.Verghese Company
- Duke and Elder
- B.M. Chaterjee
- Khurana
- Kanski

19.AYURVEDA DHANWANTRI - SHALAKYA - SHIRO- NASA-

KARNA EVUM KANTHA ROGA

PAPER – I Shiro- Nasa- Karna - Kantha Roga Vigyan Maulik Siddhanta and Vangmaya

- 1. Detailed study of Shalakyatantra from Bruhat trayee, Laghutrayee, Kashyap samhita, Yoga ratnakar, Chakradutta, Bhel samhita, Harita samhita and other granthas.
- 2. Comparative and critical study of rogas explained by various granthas.
- 3. Syntactical derivation, definition and importance of the word "Shalakya". Sequential development and history of science of ear, nose, throat and Shiras disorders. Establishment of "Superiority of shiras' among the organs. Determination and importance of the verse 'Nasa Hi Shiraso Dvaram'. Syntactical derivation and the synonyms of the words Karna, Nasa, Kantha, Shiras etc.
- 4. Descriptive knowledge of the anatomy and Physiology of ear, nose, throat and Shiras as per ancient and modern science.
- 5. Examination of the ear, nose, kantha and shira as per Ayurveda and modern science.
- 6. Common etiology of ear, nose, throat and shiras disorders, their pathogenesis, prodormal symptoms, classification, clinical features and general treatment.
- 7. Importance of shaman and sodhana therapy in ear, nose, throat and shira disorders with general introduction to local therapeutic procedures of ear nose and throat and shira e.g. kaval, gandusha etc.
- 8. Detailed applied knowledge of recent advanced diagnostic and therapeutic techniques and equipments (Yantra and Shastra) used for ENT and Shira disorders.
- 9. General knowledge of 'vrana bandhana' (bandaging of wounds) and applied bandage in ear etc.
- 10. Update chronological development of ENT from Vedic period.
- 11. Study of essential modern drugs, anaesethic agents of diagnostic and surgical importance.

PAPER – II Ayurvediya Shiro – Nasa - Karna - Kantha Roga Vigyan

- 1. Examination of the ear, nose, throat and shira patients.
- 2. Karna-Nasa –Kantha –and Shira rogas samkhya samprapti, descriptive knowledge of etiology, pathogenesis, prodromal symptoms, classification, clinical features, Upasaya-Anupsaya(prognostic measures) sadhyasadhyatwa and, complications of ear disorders described in the classics of Ayurved. Detail description along with practical orientation of their management.
- Nasa rogas samkhya samprapti, descriptive knowledge, etiology, pathogenesis, prodomal symptoms, classification, clinical features, Upasaya-Anupsaya (prognostic measures), sadhyasadhyatwa and complications of nasal diseases described in the classics of Ayurved. Detail description along with practical orientation of their treatment.
- 4. Kantha rogas samkhyasamprapti, descriptive knowledge about etiology, pathogenesis, prodromal symptoms, classification, clinical features, Upasaya- Anupsaya (prognostic measures),sadhyasadhyatwa and complications of kantha diseases described in the classics of Ayurved. Detail description along with practical knowledge of treatment.
- 5. Shira and Kapala (cranial vault) disorders samkhya samprapti, descriptive knowledge, etiology, pathogenesis, prodromal symptoms, classification, clinical features, Upasaya-Anupsaya (prognostic measures) and complications of Shira and kapala diseases described in the classics of Ayurved. Detail description along with practical knowledge of treatment.

PAPER – III Adhunika Shiro- Nasa- Karna - Kantha Roga vigyan

- 1. Descriptive knowledge of instruments and recent equipments available for diagnosis of ear nose throat head disorders along with their practical application.
- 2. Descriptive knowledge of etiology, pathogenesis, clinical features, differential diagnosis, classification along with complications of different ear nose- throat and

head disorders. Detail knowledge of the treatment (including conservative and surgical) of the above mentioned disorders.

- 3. Imaging in ENT and Head disorders, detailed knowledge of LASERS, radiotherapy, chemotherapy and other recently advanced treatment modalities like speech therapy, cochlear implant, rehabilitation of the deaf and mute, etc. related to ear nose throat and head disorders.
- 4. Management of emergencies in ENT and head disorders.

PAPER – IV Shiro- Nasa- Karna -Kantha Roga Vigyan Shalya Chikitsa

- 1. Knowledge of agropaaharniya and d trividha karma i.e pre operative, operative and post operative measures. Knowledge of eight types of surgical procedures (Astavidha Sasthra Karma) and post operative care of the patient with respect to ENT disorders (Vranitopasaniya).
- Practical knowledge of updated surgical procedures in ear like constructive surgery of external and middle ear, excision of pre auricular sinus, Tympanoplasty, Mastoidectomy, Stapedectomy, Endolymphatic sca surgery, Facial nerve decompression surgery, Cochlear implant, etc with their complications and their management.
- 3. Nose Septo-rhinoplasty, SMR, Functional Endoscopic sinus surgery, Caldwell luc surgery, Antral puncture, Antral lavage, Turbinectomy, Polypectomy, Various surgical procedures done for malignancy of Nose and paranasal sinuses, Young's surgery, etc
- 4. Throat Adenoidectomy, Tonsillectomy, Surgical procedures for pharyngeal abscesses, cauterization of pharyngeal wall granulations, tracheostomy, vocal cord surgery, surgery of vocal cord paralysis, management of laryngeal trauma, laryngectomy, etc.
- 5. General introduction of four treatment procedures like Bheshaj– Kshar Agni– Shastra and Raktavsechana with their applied aspects in ear nose throat and shiro disorders. Chaturvidha upakrama in raktasandhan vidhi related to ear nose throat and head disorders. Haemostatic management in ENT.
- 6. Removal of foreign bodies in the ear nose throat and shira as per Ayurveda and modern science.
- 7. Karna-Sandhan Nasa-Sandhan, fundamental and applied aspects of Ayurveda.

Methods of Training

- Intensive integrative training would be imparted to scholars in understanding the classical Ayurvedic aspects with an emphasis of critical comparative interpretation.
- Mandatory participation of scholars in seminars, group discussions, clinical demonstrations, journal review meetings, case study, continuing education activities and research clinical projects.
- During the first year course the emphasis would be laid to impart adequate knowledge on fundamental aspects and their applications, with a focus on latest diagnostic tools, instrumentations and laboratory procedures. Practical orientation and hospital based clinical training is an integral part of the curriculum all through.
- In the second year ,training would stress upon extending the knowledge on techniques and imparting skill for surgical performaqnce, ENT procedure based therapies, surgical/para surgical procedures so that the scholar is able to perform ENT surgical procedures independently.
- In the third year the scholar should concentrate on the clinical work and research work beased on the dissertation.
- The participation of the scholars in all the aspects of educational process is mandatory.
- Hospital postings The student has to work for 6 terms of resident posting is compulsory out of which first 2 postings will be as a junior resident and the next four postings will be as a senior resident.
- The student should also develop in the academic work of the department.

PG Final Year Syllabus-82

Pattern of Practical Examination:

Case Record(25)	-10 Marks
Bed side examination	
Long Case	-20 Marks
Short Case	-10 Marks
Identification of specimen / Instrument / Radiograph	-10 Marks
Thesis Presentation	-25 Marks
Viva Voce	-25 Marks
	5

Reference Books

- 1. Sushrut Samhita
- 2. Charak Samhita
- 3. Ashtang Hridaya
- 4. Ashtang Samgraha
- 5. Laghutrayi
- 6. Modern books related to ENT disorder
- 7. Diseases of Nose Throat and Ear Bhargav Shah
- 8. Diseases of Nose Throat and Ear, Head and Neck EB Edr.
- 9. A Text book of otorhinololaryngology Scott Browns editions.
- 10. Text book of Ear Nose Throat diseases Dhingra
- 11. Text book 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 therapy

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20. AYURVEDA DHANWANTRI-SHALAKYA - DANTA EVUM MUKHA ROGA

PAPER – I Danta evum Mukha Roga – Ayurveda Siddhanta and Vangmaya Marks 100

- 1. Etymology, definition and importance of the word 'Shalakya', History and development of the science of oral and dental diseases. Etymology and synonyms of the word 'Mukha' and 'Danta'. Ancient and recent knowledge of anatomy of oral cavity and teeth along with the knowledge of salivary glands.
- 2. Detailed study of Oral cavity and gustatory physiology.
- 3. Oral hygiene, Social aspect of oral hygiene, preventive measures in oral cavity diseases, general etiology, pathogenesis, prodromal symptoms, clinical features and general management of oral cavity diseases.
- 4. Agropaharaniya, knowledge of purva, pradhan and pashchat karma. Study of Ashta Vidha Shastra Karmas in relation to Danta and Mukha Roga.
- 5. Applied and detailed study of therapeutic measures for oral and dental disorders, like Kavala, Gandusha, Dhumapana, Nasya, Murdhtaila Mukhalepa and Pratisarana and their definition, types, indications, contraindications, procedure, features of proper, excess, deficient application and their management.
- 6. Importance of shodhan and shaman treatment in oral and dental diseases and knowledge of common recipes useful in oral and dental diseases.
- 7. General introduction of four types of treatment (Bheshja, Shastra, Kshara, Agni). Detail description of Anushastra karma; their practical knowledge in oral and dental diseases.
- 8. Analytical determination of related subjects of danta-mukha disorders available in ancient and modern commentaries of different Samhita.

PAPER – II Ayurvediya Danta evum Mukha Rog Vijnana

1. Examination of oral cavity, periodontia and teeth. Teeth eruption and its systemic disturbances in a child, Classification, Number of teeth along with detail knowledge of abnormal tooth eruption. Dental disorders in paediatric age group, their prevention and treatment.

- 2. Danta gata rogas Dental diseases detailed in the classics of Ayurved; their etiology, pathogenisis, prodromal symptoms, clinical features, complication and applied approach in the treatment of dental diseases.
- 3. Detailed study of etiology, pathogenesis, prodromal-symptoms, clinical features, complications and prognosis of diseases of the Danta-Mula Gata Roga (**gum-periodontia**) as detailed in the classics of Ayurved. Practical approach/orientation in Treatment of the periodontal diseases.
- 4. Oshtha (lip), Jihva (tongue) and Talu (palate) Rogas, detailed study of etiology, pathogenesis, prodromal symptoms, clinical features, complications and, prognosis. Detailed description of their treatment along with practical orientation.
- 5. Sarvasara Mukharogas (Generalized oral diseases) available in ayurvedic classics. Detailed study of etiology, pathogenesis, prodromal-symptoms, clinical features, complications, prognosis and management of mukha rogas along with practical orientation.
- 6. Knowledge of Dantabhighata (dental trauma) and Mukhabhighata (oral injury) along with diagnostic and referral skills.

PAPER – III Adhunik Danta evum Mukha Rog Vijnana

- 1. Detail study of etiology, pathogenesis, clinical features, classification and complication of various oral and dental diseases available in literature of Modern sciences. Detail study of their recent available medical therapeutics.
- 2. Detail description of diagnostic technology in the diagnosis of oral and dental disease.
- 3. Study of essential modern drugs, anaesthetic agents of diagnostic and surgical importance.

Marks 100

Marks : 100

- 4. Descriptive Knowledge of up-to-date available modern instruments and their application for examination, diagnosis and management of oral, periodontal and dental diseases.
- 5. Up-to-date knowledge of applied and available surgical procedures indicated in various dental diseases like tooth extraction, RCT, Dental filling, filling materials, tooth fixation and tooth implants etc.
- 6. Systemic Effects of oral, periodontal and dental diseases.

PAPER – IV Danta evum Mukha Rog Vijnana & Dentistry

Marks - 100

- 1. Jaalandhara Bandha, its importance and application in Tooth extraction without anaesthesia.
- 2. Vishishta Upadanta parikalpana (Dental Material and Prosthesis).
- 3. Recent Research studies and advanced clinical applications of Kriya Kalpas in Danta and Mukha Rogas.
- 4. Detailed study of recent available medical therapeutics and Research studies in Dental and oral cavity disorders.
- 5. Adavnced diagnostic technology in Dentistry and oral pathology.
- 6. Benign and malignant tumors of Oral Cavity, their management and role of Ayurveda in Such conditions.
- 7. Useful conducts for treatment of oral and dental diseases with study of related medicolegal aspects.

Methods of Training

- Intensive integrative training would be imparted to scholars in understanding the classical Ayurvedic aspects with an emphasis of critical comparative interpretation.
- Mandatory participation of scholars in seminars, group discussions, clinical demonstrations, journal review meetings, case study, continuing education activities and research clinical projects.
- During the first year course the emphasis would be laid to impart adequate knowledge on fundamental aspects and their applications, with a focus on latest diagnostic tools, instrumentations and laboratory procedures. Practical orientation and hospital based clinical training is an integral part of the curriculum all through.
- In the second year, training would stress upon extending the knowledge on techniques and imparting skill for surgical performance, Dental procedure based therapies, surgical / para surgical procedures so that the scholar is able to perform Dental surgical procedures independently.
- In the third year the scholar should concentrate on the clinical work and research work based on the dissertation.
- The participation of the scholars in all the aspects of educational process is mandatory.
- Hospital postings The student has to work for 6 terms of resident posting is compulsory out of which first 2 postings will be as a junior resident and the next four postings will be as a senior resident.
- The student should also develop in the academic work of the department.

Pattern of Practical Examination:

1. Bed side examination	
Short Case 2 of 10 marks each	-20 Marks
Long Case	-20 Marks
2. Identification of specimen / Instrument / Radiograph	-10 Marks
3. Thesis Presentation / Viva	-10 Marks
4. Teaching skill	-10 Marks
5. Viva Voce	-30 Marks

Reference Books

Reference books	
1. Sushrut Samhita	- Dalhana
2. Useful Portion of Charak Samhita-Ashtang Samgraha	-Ashtang Hridaya
3. Useful portion of Laghutrayi related to Danta and Mukha R	Roga
4. Shalakya Vijnanam	- Ravindra Chandra
	Chaudhary
5. Nimi Tantra	- Ramanath Dwivedi
4. Dental Anatomy Histology	- Dr. S.I. Bhalajhi
5. Essentials of Preventive and Community Dentistry	-Dr. Soben Peter
6. Complete Denture Prosthodontics	- Dr. J.J. Manappallil
7. Orthodontics the Art and Science	- Dr. S.I. Bhalajhi
8. Text book of Pediatric Dentistry	- Dr. S.G. Damle
9. Text book of Oral and Maxillofacial surgery	-Dr. Vinod Kapoor
10. Clinical Periodontology	- 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 maxilofacial 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

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<u> 14. SHALYA TANTRA - SAMANYA</u>

PAPER - I 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 its Importance.
- 6. Asepsis and Antisepsis.
- 7. Nirjantukarana Sterilization Various methods for surgical equipments, laparoscopes, 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. Vranasopha Inflammation and Vidradhi Abscess
- 17. Granthi Cyst and Arbuda Benign and malignant Neoplasm Concept of Oncogenesis and genetics of cancer.
- 18. Gulma and Udara Roga.
- 19. Kshudra Roga.
- 20. Fluid, electrolyte, Acid Base Balance and Nutrition
 - i. Introduction of physiology of fluids and electrolytes.
 - ii. Dehydration and over hydration.
 - iii. Specific electrolyte loss, Acidosis, Alkalosis, Symptomatology and Management.
 - iv. Electrolyte changes in specific surgical conditions and their management.
 - v. Plasma volume expanders and their use in surgical condition.
- vi. Various replacement fluids in surgery, mode of administration and complications.
- vii. Nutrition Indications, types, mode of administration and complications.
- 21. Blood Transfusion Blood groups, compatibility, Indications, Contraindications and complications with management.
- 22. Knowledge of antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.

PAPER – II Vishishta Shalya Vigyana - Shalya Tantra Speciality

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

PG Final Year Syllabus-61

100 Marks

- 3. Mutra Roga Urological diseases.
 - i. Anatomical and physiological knowledge of kidney, ureter, urinary bladder, prostate, seminal vesicles, urethra and penis.
 - ii. Investigations of Mutravaha Srotas Urinary tract.
 - iii. Aetiopathogenesis and surgical procedures of Ashmari Urinary stone diseases.
 - iv. Kidney and ureter Clinical presentation, Investigations and Management of Congenital anomalies, Trauma, Infection, Neoplasm, Hydronephrosis, Hydroureter and Haematuria.
 - V. Urinary bladder Clinical presentation, Investigations and Management of Congenital anomalies, Trauma, Infection, Neoplasm, Diverticulum, Vesicovaginal fistula, Atony, Schistosomiasis, Urinary diversions, Retention of urine – Mutraghata and Mutrakruccha.
 - vi. Urethra Clinical presentation, Investigations and Management of Congenital anomalies Hypospadias, Epispadias, Posterior urethral valve, Trauma, Infection, and Neoplasm.
 - vii. Prostate and seminal vesicles Benign and malignant enlargement of prostate, Prostatitis, Prostatic abscess and Calculi.
 - viii. Penis Clinical presentation, Investigations and Management of Congenital anomalies, Trauma, Infection, Phimosis, Paraphimosis, Peyronie's disease and Neoplasm.
 - ix. 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.
 - x. 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.

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 trauma 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 Lympadenopathies.
- 4. Diagnosis and Surgical management of breast diseases, Benign and Malignant breast tumours.
- 5. Diagnosis and Surgical measures of diseases of Gastrointestinal system
 - i. 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.
 - ii. Oesophagus Oesophageal varices, Dysphagia, Neoplasm, Strictures and Gastro oesophageal reflux.
 - iii. Stomach and duodenum –Congenital anomalies, Injuries, Inflammation, Ulcer, Neoplasm, Pyloric stenosis, Acute dilatation ,Hiatus hernia and Foreign bodies.
 - iv. Pancreas Congenital anomalies, Acute and Chronic pancreatitis, Calculi Neoplasm and Cysts of pancreas.

- v. Peritoneum, Omentum, Mesentery, Retroperitoneal Space Peritonitis, Abscess, Neoplasm, Mesenteric cyst, Torsion of mesentery, Vascular thrombosis, Retroperitoneal cyst and Fibrosis.
- vi. Abdominal mass Diagnosis and Management.
- vii. 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.
- viii. Large intestine Congenital anomalies, Inflammation, Ulcer, Neoplasm, Stenosis, Injuries, Foreign bodies, Diverticuli, Faecal fistula, Amoebiasis and Familial polyposis coli.
- ix. Caecum and Vermiform appendix- Appendicitis, Appendicular abscess, Appendicular mass, Perforation, Carcinoid Tumor and other Neoplasm.
- x. Gastrointestinal bleeding Haemetemesis, Malaena, Haemobilia, Bleeding per anum Causes, Diagnosis and Management.
- xi. Rectum and anal canal Diagnosis and Surgical management of Congenital Anomalies, Inflammation, Ulcer, Neoplasm, Stenosis, Prolapse, Haemorroids, 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
 - i. Liver Abscess, Cyst Hydatid cyst, Primary and Secondary malignant tumours, Portal Hypertension and Budd-Chiari Syndrome.
 - ii. Gall bladder and Bile duct Congenital anomalies, Acute and Chronic Cholecystitis, Cholelithiasis, Neoplasm, Cholangitis, Stenosis, Choledocholith iasis, Choledochal cyst and Cholangiocarcinoma.
 - iii. 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 Shalya Vangmaya – Shalya literature, Research and Development

- 1. Thorough study of the Sushruta Samhita including other relevant portions of Brihattrayee and Laghutrayee.
- 2. 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.
- 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 –
 - i. Karna Sandhana Auroplasty
 - ii. Nasa Sandhana Rhinoplasty
 - iii. Ostasandhana Cheiloplasty
 - iv. Grafts and Flaps Techniques and applications.
 - v. Vascular anastomosis and grafts.

 Anushalya Karma – Parasurgical procedures i. Kshara Karma, Kshara Sutra, Agnikarr 	ma and Raktamoskhana.
 Pattern of Practical examination 1. Case record (25) 2. Short case 3. Long case 4. Identification of specimen / radiograph and Instr 5. Thesis Presentation 6. Viva-voce 	100 Marks -10 Marks -10 Marks -20 Marks -20 Marks - 20 Marks -20 Marks -20 Marks
Reference Books 1. Sushruta Samhita	
2. Ashtanga Sangraha	
 Ashtanga Hridaya Charaka Samhita 	
 The Surgical instruments of the Hindus Shalya Tantra Samuchchaya Shalya Uimum (Dart 1.2) 	- Girindranath Mukhopadhyaya - Pandit Ramadesh Sharma
7. Shalya Vigyan (Part 1-2) 8. Shalya Samanvaya (Part 1-2)	 Dr. Surendra Kumar Sharma Vd. Anantaram Sharma
9. Shalya Pradeepika 10. Soushruti 11. Clinical Shalya Vigyan	 Dr. Mukund Swaroop Verma Dr. Ram Nath Dwivedi Dr. Akhilanand Sharma
12. Bhagna Chikitsa Deshpande	- Dr. Prabhakar Janardhan
13. Kshara sutra management in anorectal ailments and Dr. Kulwant Singh.	
 Anorectal diseases in Ayurveda Kumar Chowdary. 	- Dr. Sizoria and Dr. Praveen
15. Adhunika Shalya Chikitsa Siddanta 16. Agnikarma Technology Innovation	 Dr. Katil Narshingham Udupa Dr. P.D. Gupta
17. Shalya Tantra Ke Siddhant	- Dr. K.K.Takral
 Recent advances in the management of Arshas / Kumar 	Haemorrholds - Dr. P. Hemantha
19. Arsha Evum Bhagander Mein sutra Avacharan 20. Recent advances in Kshara Sutra	- Vd. Kanak Prasad Vyas - Dr. M. Bhaskar Rao
21. Leech application in Ayurveda	- Dr. M. Bhaskar Rao
22. Kshara Sutra 23. Shalya Shalakya Tantra	- Dr. S.N.Pathak - Vd. S.G. Joshi
24. Surgical ethics of Ayurveda	- Dr. D.N. Pande
25. Text book of Surgery 26. Operative Surgery	 Sabistan Rob and smith
27. Bailey and Love's Short Practice of Surgery Mann and R.C.G. Russell	- Norman.S. Williams, Charles.V.
28. Fractures and Joint Injuries 29. Text books of Operative Surgery	- Watson-Jones - Farguharsons'
30. Principles of Surgery	- Schwartz
31. Emergency Surgery 32. Surgical pathology	-Hamilton Bailey's - Willing Worth
33. Clinical methods in surgery	- S. Das
34. Textbook of Operative Surgery 35. Shalya Vigyan (Sachitra)	- S. Das - Anantram Sharma
36. Anushastra Karma	- Dr. D.N. Pande
37. Concept of Vrana is Ayurveda 38. Significance for Poorva Karma in Surgical Patient	 Dr. Lakshman Singh Dr. Lakshman Singh

 39. Sangyaharan Prakash 40. A concise Text Book of Surgery 41. A manual on Clinical Surgery 42. A System of Surgical Diagnosis 43. A Practical Guide to Operative Surgery 44. Drugs and Equipment for Anaesthesia 45. Manual of Surgical Instruments 46. Ward Procedures 47. Recent trends in the management of Arshas / Herita 	 Dr. D.N. Pande S. Das S. Das T.N. Patel S. Das Arun kumar M.M. Kapur Patel Mansukh. B Haemorrhoids - Dr. P. Hemantha
Kumar 48. Primary Anaesthesia 49. Synopsis of Anaesthesia 50. Clinical Anatomy/ Surgical Anatomy 51. Surgical Instruments of the Hindus 52. Outline of Orthopedics Hamblen. L 53. Outline of Fracture 54. Recent trends in the management of Bhaganda	 Maurice King Lee John E.Skandalakis Girindharnath Mukopadyay John Crawford Adams and David John Crawford Adams Ara / Fistula-in-ano - Dr. P. Hemantha
Kumar 55. Principles and Practice of Agnikarma Kanchan Shekokar. 56. Manipal Manual of Surgery	- Dr. Anand Kumar and Dr. - Dr. Rajgopal Shenoy

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<u> 15. SHALYA – KSHARA EVUM ANUSHASTRA KARMA</u>

PAPER - I 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 its Importance.
- 6 Asepsis and Antisepsis.
- 7 Nirjantukarana Sterilization Various methods for surgical equipments, laparoscopes, 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 Vranasopha Inflammation and Vidradhi Abscess
- 17 Granthi Cyst and Arbuda Benign and malignant Neoplasm Concept of Oncogenesis and genetics of cancer.
- 18 Gulma and Udara Roga.
- 19 Kshudra Roga.
- 20 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.
- 21 Blood Transfusion Blood groups, compatibility, Indications, Contraindications and complications with management.
- 22 Knowledge of antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.

PAPER – II Vishista Anushastra Karma

1. Kshara Karma and Prayoga – Therapeutic Chemical Cauterization.

- i. Introduction of different types of Kshara, Method of preparation, Standardization, pH value, Application, Complications and its management.
- ii. Surgical Anatomy and Physiology of Anus and Rectum.
- iii. Arshas Nidana, Purvaroopa, Roopa, Samprapti, Prakara and Chikitsa.
- iv. Haemorrhoids Aetio-pathogenesis, types and its surgical management.
- v. 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.
- vi. Bhagandara Nidana, Samprapti, Prakara, Doshanusarachikitsa, Knowledge and application of Kshara Sutra.

100 Marks

- vii. 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.
- viii. Parikartika Nidana, Samprapti and its Chikitsa.
- ix. Fissure-in-ano Aetio-pathogenesis, types and its surgical management.
- x. Sannirudhaguda and its Chikitsa.
- xi. Anal Stenosis Aetio-pathogenesis and its surgical management.
- xii. Gudavidradhi Nidana, Purvaroopa, Roopa, Samprapti, Prakara and its Chikitsa.
- xiii. Anorectal abscesses Aetio- pathogenesis, types, complications and its surgical management.
- xiv. Gudagatashalya Diagnosis and its Management.
- xv. Foreign body in rectum and anal canal Method of diagnosis and its management.
- xvi. Congenital Anorectal disorders and its surgical management.
- xvii. Gudaarbuda and Granthi and its Chikitsa.
- **xviii.** Anorectaltumour Types and its surgical management.

2. Agnikarma – Therapeutic cauterization

- i. Introduction, definition and importance of Agnikarma.
- ii. Agnikarma Poorva, Pradhana and Paschat karma, various substances and Shalakas used for Agnikarma and their indications, contra-indications and complications.
- iii. Diagnosis and management of Oil burn, Dhumopaghata, Ushnavata, Sunburn, Frost bite and Electric burn.
- iv. Knowledge of modern thermal equipment Diathermy, Laser therapy, microwave, Ultracission technique, Cryo Technique and its uses.
- v. Effect of Agnikarma on skin, muscle tissue, nerves, metabolism, blood circulation and infective lesions.

3. Raktamokshana – Bloodletting Procedures

- i. Introduction and importance of Raktamokshana.
- ii. Indication and contraindication of Raktamokshana.
- iii. Justification of usage of different types of Raktamokshana in various therapeutic applications.
- iv. Different types of Raktamokshana Sastrakritha Siravyadhana, Prachana and Asastrakritha Shringa, Jaluka, Alabu and Ghati.
- v. Jalauka Nirukti, Paryaya, Bhedha, Sangrahana, Samrakshana, Jalaukavacharana Vidhi - Poorva, Pradhana and Paschat karma.
- vi. Knowledge of Leeches Morphology, Anatomy, Physiology, Bio-chemical effects of its various constituents present in its saliva.
- vii. Rakta- Importance, Formation, Panchabhoutikatva, RaktaSthana, Guna, Prakurta Karma and Rakta Sara Purashalakshanas. Suddha and Dushta Rakta Lakshanas. Rakta Pradoshaja Vyadhis.

PAPER – III Adhunika Shastra Karma - Modern Surgery

- 1. Fundamentals of modern surgery and treatment of surgical disorders including surgical anatomy, physiology and pathology.
- 2. Diagnosis and surgical measures for disorders of vein, artery, ligaments, joints and muscles.
- 3. Diagnosis and Surgical management of neck disorders e.g. salivary glands, thyroid tumours, etc.
- 4. Diagnosis and Surgical management of breast diseases.
- 5. Diagnosis and surgical management of traumatic disorders Head injury, thoracic and abdominal trauma.
- 6. Diagnosis and surgical management of diseases of Gastrointestinal system- stomach, pancreas, peritoneum, omentum, mesentery, retroperitoneal space, small intestine, large intestine and vermiform appendix.

- 7. Diagnosis and surgical management of Proctological disorders.
- 8. Diagnosis and surgical measures of diseases of Hepatobiliary system Liver, gall bladder, bile ducts and spleen.
- 9. Diagnosis and surgical management of diseases of Urogenital system.
- 10. Diagnosis and surgical management of diseases of scrotum and testis. Hydrocele, Ectopic testis and Undescended testis.
- 11. Diagnosis and surgical management of Hernias Inguinal, femoral, umbilical, incisional, abdominal wall and other hernias.
- 12. Endoscopic procedures Oesophagogastroduodenoscopy, Sigmoidoscopy and Colonoscopy.
- 13. Diagnostic and therapeutic laparoscopy.
- 14. Anaesthesia Definition, Types, Anaesthetic agents, Indications, Contraindications, Procedures, Complications and Management.

PAPER – IV ShalyaVangmaya

- 1. Thorough study of the Sushruta Samhita including other relevant portions of Brihattrayee and Laghutrayee.
- 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. Knowledge of different type of experimental Surgical Model for Research in Surgery.

Pattern of Practical examination	100 Marks
7. Case record (25)	-10 Marks
8. Short case	-10 Marks
9. Long case	-20 Marks
10. Identification of specimen / radiograph and Instruments	-20 Marks
11. Thesis Presentation	-20 Marks
12. Viva-voce	-20 Marks

Reference Books

- 57. Sushruta Samhita
- 58. Ashtanga Sangraha
- 59. Ashtanga Hridaya
- 60. Charaka Samhita
- 61. The Surgical instruments of the Hindus Girindranath Mukhopadhyaya
- 62. Shalya Tantra Samuchchaya
- 63. Shalya Vigyan (Part 1-2)
- 63. Shalya Vigyan (Part 1-2) 64. Shalya Samanvaya (Part 1-2) 65. Shalya Pradeenika
- 65. Shalya Pradeepika
- 66. Soushruti
- 67. Clinical Shalya Vigyan
- 68. Bhagna Chikitsa Deshpande
- 69. Kshara sutra management in anorectal ailments Dr. S.K. Sharma, Dr. K.R.Sharma and Dr. Kulwant Singh.
- 70. Anorectal diseases in Ayurveda Kumar Chowdary.
- 71. Adhunika Shalya Chikitsa Siddanta- Dr. Katil Narshingham Udupa72. Agnikarma Technology Innovation- Dr. P.D. Gupta
- 73. Shalya Tantra Ke Siddhant

- Pandit Ramadesh Sharma
- Dr. Surendra Kumar Sharma
- Vd. Anantaram Sharma
- Dr. Mukund Swaroop Verma
- Dr. Ram Nath Dwivedi
- Dr. Akhilanand Sharma
- Dr. Prabhakar Janardhan
- Dr. Sizoria and Dr. Praveen

- Dr. K.K.Takral

PG Final Year Syllabus-68

74. Recent advances in the management of	- Dr. P. Hemantha Kumar
Arshas / Haemorrhoids	Val Kanak Drasad Vivas
75. Arsha Evum Bhagander Mein sutra Avacharan	- Vd. Kanak Prasad Vyas
76. Recent advances in Kshara Sutra	- Dr. M. Bhaskar Rao
77. Leech application in Ayurveda	- Dr. M. Bhaskar Rao
78. Kshara Sutra	- Dr. S.N.Pathak
79. Shalya Shalakya Tantra	- Vd. S.G. Joshi
80. Surgical ethics of Ayurveda	- Dr. D.N. Pande
81. Text book of Surgery	- Sabistan
82. Operative Surgery	- Rob and smith
83. Bailey and Love's Short Practice of Surgery Mann and R.C.G. Russell	- Norman.S. Williams, Charles.V.
84. Fractures and Joint Injuries	- Watson-Jones
85. Text books of Operative Surgery	- Farquharsons'
86. Principles of Surgery	- Schwartz
87. Emergency Surgery	-Hamilton Bailey's
88. Surgical pathology	- Willing Worth
89. Clinical methods in surgery	- S. Das
90. Textbook of Operative Surgery	- S. Das
91. Shalya Vigyan (Sachitra)	- Anantram Sharma
92. Anushastra Karma	- Dr. D.N. Pande
93. Concept of Vrana is Ayurveda	- Dr. Lakshman Singh
94. Significance for Poorva Karma in Surgical Patient	
95. Sangyaharan Prakash	- Dr. D.N. Pande
96. A concise Text Book of Surgery	- S. Das
97. A manual on Clinical Surgery	- S. Das
98. A System of Surgical Diagnosis	- T.N. Patel
99. A Practical Guide to Operative Surgery	- S. Das
100. Drugs and Equipment for Anaesthesia	- Arun kumar
101. Manual of Surgical Instruments	- M.M. Kapur
102. Ward Procedures	- Patel Mansukh. B
103. Recent trends in the management of Arshas / Haemorrhoids	- Dr. P. Hemantha Kumar
104. Primary Anaesthesia	- Maurice King
105. Synopsis of Anaesthesia	- Lee
106. Clinical Anatomy/ Surgical Anatomy	- John E.Skandalakis
107. Surgical Instruments of the Hindus	 Girindharnath Mukopadyay
108. Outline of Orthopedics	- John Crawford Adams and David Hamblen. L
109. Outline of Fracture	- John Crawford Adams
110. Recent trends in the management of Bhagandara / Fistula-in-ano	- Dr. P. Hemantha Kumar
111. Principles and Practice of Agnikarma	 Dr. Anand Kumar and Dr. Kanchan Shekokar.
112. Manipal Manual of Surgery	- Dr. Rajgopal Shenoy
