

Salyathanthram

SCHEME OF EXAMINATION:

Terms & Periodical exams

It is proposed to divide the 1-½ years of professional course into three terms as envisaged by DAME. The three terms, study leave & periodical exams can be as follows:

Term 1 : Classes for 6 months, including examination & result

Term 2 : Classes for 6 months, including examination & result

Term 3 : Classes for 4 months including model examination & result.

Study leave + University Exam for 2 months

University Examination process 2 months

Total : 18 months

Total : 18 months

- Terminal exams should include viva.
- Examinations should be completed within the period of 18 months as stipulated by CCIM

Third terminal exam may be conducted as model exam.

1. Goal

The goal of the teaching of undergraduate students in salyantra is to produce graduates capable in +diagnosing the surgical diseases and able to do minor surgery.

2. Objective

3. Knowledge

At the end of the course the student shall be able to:

1. Describe nidana, samprapthi, principles of the diagnosis and management of common surgical problems
2. Define sepsis disinfection and sterilization
3. Describe common malignancy and their management including prevention
4. Describe different types of anesthesia and their complications.

4. Skills

At the end of the course the student shall be able to:

- 1) Diagnose the common surgical conditions both acute and chronic.
- 2) Plan various laboratory tests for surgical conditions and interpret their results.
- 3) Identify and manage patients of shock
- 4) Provide primary care to patients of burns
- 5) Acquire principles of operative surgery includes preoperative, operative, post operative cure and monitoring.
- 6) Treat open wounds including preventive measures against tetanus and gangrene
- 7) Identify congenital anomalies and refer them for management
- 8) Incise and drain abscess
- 9) Suturing
- 10) Excision of simple cyst and tumors

- 11) Biopsy of surface malignancy
- 12) Catheterization
- 13) Anal dilatation
- 14) Diagnostic proctoscopy
- 15) Ksharasutra therapy in piles and fistula.
- 16) Various types of Bandages
- 17) Wound dressing
- 18) Suturing
- 19) First Aid
- 19) Panchakarma
- 20) Instruments
- 21) Essential Drugs
- 21) Drugs identification
- 22) Raktha Moksha
- 23) X-ray, MRI, CT Scan, EEG, ECG
- 24) Emergency management
- 25) Shashtirupakramam
- 26) Haemostatic methods
- 27) Sasthrakarma
- 28) IV fluids
- 29) Kshara soothra Nirmanam
- 30) Relevant Investigations etc.

5. Details of teaching

Duration : 18 months

Total number of hours

Lecture : 210 hours

Clinical Practicals : 225 hours

(Innovative session, Project work, Seminars, Discussion etc.)

The subject is divided into modules to make it convenient for the pupils and teaching faculty and it can be finished within the stipulated time.

- Contents of the syllabus for the Salyathantra Paper I and II is divided into 15 modules for 14 hours each.
- Modules 1,2,3, 8 and 12 (70 hours in 4 months) are fixed and expected to be covered for the first Periodic examination. (Modules 1, 2,3 will be the part A and 8th and 12th modules will constitute Part B for First periodical examination)
- Modules 4,5,6,7 and 10 (70 hours in 4 months) are fixed and expected to be covered for the Second periodical examination. (Modules 4,5, will form part A modules 6,7,10 will constitute part B)
- Modules 9,11,13,14 and 15 (70 hours in 4 months) are fixed and expected to be covered for the Third periodical examination.
(Modules 9,11,13 included in Part A, 14,15 will be in part B)

6. Assignment

Each student will be assigned by the Department with a topic/subject at the end of the first month in the Third Professional Junior class. One copy of the assignment should be submitted to the Department on the first day of the First Periodic Examination (viva-voce). The assignment should be typed or hand – written, not less than 20 pages [each page comprising 18-20 lines]. Every student has to present the subject during the Second Semester in the

Departmental Seminar sessions as per the schedule fixed. The assignment will be evaluated and graded as:

A= Outstanding B = Average C = Below Average

7. Practical Records

Practical Records for Salyathanthra Paper I and II will have three parts. 10 filled – in and completed clinical case records for paper I plus descriptions and diagrams of surgical instruments will form the Part 1. 10 filled – in and completed clinical case records for Paper II Plus descriptions and diagrams of bhagnas and bandages will be there in Part 2. 10 filled-in clinical case records from General Surgery plus descriptions of anusastrakarmas will be included in part 3. Practical Records containing 3 parts shall be submitted as a single bound volume.

8.

There will be one Paper for each Periodic Examination. Each Paper consists of Theory Examination for 100 Marks [Part A & B], and Practical and Oral Examinations for 50 Marks [30 + 20]. After evaluation, Marks will be published by the Department.

9.

A model question paper/bank for the first Periodic Examination is prepared and set in the work shop. Actual Question Bank will (can) be prepared with the contributions from the Salyathanthra Departments of all the Ayurveda Colleges.

III Professional BAMS
Salyathantra Paper I & II

Modules & Details

Duration of the Course	: 18 Months
Total lecture classes allotted [CCIM]	: 210 Hours
Number of Modules fixed for the Course	: 15 Modules
Number of hours fixed per Module	: 14 Hours

Break up details of the 15 Modules and Contents

SALYATHANTHRA Paper I Part –A

Module 1

Salyathanthrasya utapthi, Paramparaa, vikaasa, Salyathantra praadhaanyam	: 1 hr
Susrutha vichaara, Dhanwanthari vichaara, Commentaries of Susrutha samhitha, other details	: 1 hr
Salyathanthrasya hraasakaaranaani, Utkarshaartham,Upaayaah	: 1 hr
History of the development of Modern Surgery and Anaesthesia	: 1 hr
Vyaadhiprakaaraah, Nija-Aaganthu vibhaaga, saadhya-asaadhya bheda, Shalyatantrasaadhya vyaadhayah	: 1 hr
Vranasopha–Vidrathi: nirukti, nidaana, sampraapti prakaaraah, laxanaani, upadrava, avastha, vranasopha pareeksha	: 4 hrs
Sapta upakarmaah, shashtirupakramaah	: 4 hrs

Inflammation	:	1 hr
Total	:	14 hrs

Module 2

Vrana: nirukti, hetu, prakaaraah: nija-aagantu sudha-dusta, rohitavrana, shodashaprakaaraah	:	2 hrs
Vranapareeksha, sthaana, aakruti, vranasraavagandha, vedana, astavranavasthu, adhishtaana upadrava, saadhyaadhyata	:	2 hrs
Ulcer: definition, classification, clinical features examination of ulcers, wound healing, stages, scar formation	:	2 hrs
Naadeevrana, prakaarah, lakshanaani, chikitsa sinus, clinical features, methods of examination	:	2 hrs
Aagatuvrana, nidaana, prakaaraah, lakshanaani, dushti, kodha, upadrava (apataanaka-visarpa etc) chikitsa, shalyanirharana, sadyovranasudhi, saptavidhachikitsa, seevanaadi chikitsa	:	4 hrs
Raktasraava: Ayurvedic aspects, management	:	1 hr
Haemorrhage: clinical features, management basics of blood transfusion	:	1 hr
Total	:	14 hrs

Module 3

Marmaaghaata, lakshanaani, (incl: pathogenesis) chikitsa, vishishta chikitsa	:	3 hrs
Shock in surgical practice	:	1 hr
Body fluids, balance, parenteral nutrition	:	1 hr
Pranashtashalya vijnanam	:	2 hrs

X-Ray, USG, CT, MRI and other techniques of Imageology	:	4 hrs
Radiotherapy: Principles and practices	:	1 hr
Shalyanirharana: ancient and current methods	:	2 hrs
Total	:	14 hrs

Salyathanthra Paper 1 Part – B

Module 4

Agropaharaneeyam	:	1 hr
Yantra, shastra, paayana, dhaara, guna, dosha, Surgical instruments in current practice, vishikhaa	:	3 hrs
Pichu, plotha, kabalika (surgical dressings etc.)	:	1 hr
Bandhana vidhi, shodhana-ropana dravyas	:	2 hrs
Yogyaasoothreeyam	:	1 hr
Anaesthesia: types; General, Regional, agents used premedication, stages, complications, management Historic aspects of samgyaharan in Ayurveda	:	2 hrs
Ashtavidha shastrakarma, poorvakarma (pre-op) pradhaanakarma (operative procedures), introduction to theatre techniques and surgical procedures	:	4 hrs
Total	:	14 hrs

Module 5

Pashchaatkarma (post-op), rakshaakarma, vranshopaasaneeyam, pathyaapathyam, aacharika vidhi	:	2 hrs
Vishishta shastrakarmanusaari pashchaatkarma (post-operative care for specific operations)	:	1 hr

Kshaara karma chikitsaa vidhi	:	2 hrs
Agni karma chikitsaa vidhi	:	1 hr
Pramaada dagdha (Ayurvedic aspects)	:	1 hr
Burns, scalds and other thermal injuries	:	1 hr
Raktamoksha: techniques, indications, classification (shastra-anushastra), details and descriptions	:	3 hrs
Sandhaanakarma vidhi (Plastic surgery)	:	2 hrs
Surgical infections	:	1 hr
Total	:	14 hrs

Salyathantra Paper II Part – A

Module 6

Arbuda: vargeekaranam, Chikitsa (Ayurveda)	:	2 hrs
Grandhi: vargeekarnam, chikitsa (Ayurveda)	:	1 hr
Neoplasms: benign, malignant Cancers: classification and management	:	2 hrs
Laseekaavikaaraah (sleepada, apachi, gandamaala), Diseases of lymphatics (Modern)	:	3 hrs
Siraavikaaraah – Diseases of the veins diagnosis, management (Modern)	:	2 hrs
Dhamaneevikaaraah – Diseases of the arteries diagnosis, management (Modern)	:	4 hrs

Module 7

Snaayuvikaaraah (Diseases of tendons) diagnosis, management (Modern)	:	1 hr
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Twak vikaarah (Kshudrarogaah)- lakshnaani,
chikitsa (Ayurveda) : 5 hrs

Asthivikaaraah – lakshanaani, chikitsa
(surgical diseases of the bones) (Ayurveda and Modern) : 4 hrs

Sandhivikaaraah – lakshnaani, chikitsa
(surgical diseases of the joints) (Ayurveda and Modern) : 4 hrs

Module 8

Bhagna – definition, classification, lakshanaani, principles
of management (General), specific management of fractures
(Ayurvedic and Modern) : 10 hrs

Sandhimuktam – definition, classification, lakshana
principles of management (General), specific management
of dislocated joints (Ayurveda and Modern) : 4 hrs

Total : 14 hrs

Module 9

Sirovikaaraah – surgical diseases, head injuries etc.
diagnosis, management : 3 hrs

Manyaavikaaraah – jacaranda, manyaasthambha other
surgical diseases of the neck (Modern) diagnosis, management : 3 hrs

Urobhaagavikaaraah – sthanarogaah-pupfusarogaah
urobhaagashopha – raajyakshma diagnosis, management : 8 hrs

Total : 14 hrs

Salyathanthra Paper II Part – B

Module 10

Udararogaah – classification, shalyasaadhya-udararogaah, lakshanaani, chikitsa (Ayurvedic)	:	3 hrs
Diseases of the abdomen – diagnosis, management, abdominal injuries, acute abdomen etc. (Modern)	:	7 hrs
Annanalika vikaarah (Modern) diagnosis and management	:	4 hrs
Total	:	14 hrs

Module 11

Aamaashayavikaaraah – lakshanaani, chikitsa (Modern)	:	6 hrs
Kshudrantravikaaraah – lakshanaani, chikitsa (Modern)	:	2 hrs
Brihadaantravikaaraah – lakshanaani, chikitsa (Modern)	:	6 hrs
Total	:	14 hrs

Module 12

Gudavikaaraah – lakshanaani, chikitsa (Ayurvedic)	:	5 hrs
Diseases of the Rectum and Anal canal (Modern)- clinical features, diagnosis and management	:	5 hrs
Diseases of the Liver (Modern) – clinical features, diagnosis, management	:	4 hrs
Total	:	14 hrs

Module 13

Pithaashaya vikaaraah (Modern) clinical features, diagnosis, management	:	4 hrs
Agnyaashaya vikaaraah (Modern) clinical features,		

diagnosis, management	:	2 hrs
Pleehaavikaarah (Modrn) clinical features, diagnosis, management	:	2 hrs
Vrikkaavikaaraah (Modern) clinical features, diagnosis, management	:	6 hrs
Total	:	14 hrs

Module 14

Gaveenivikaarah (Modern)-diagnosis, management	:	2 hrs
Ashmari – classification, lakshanaani, chikitsa (Ayurvedic)	:	2 hrs
Urolithiasis- diagnosis, principles of management (Modern)	:	1 hr
Diseases of the Urinary Bladder-diagnosis, management (Modern):		3 hrs
Moothraaghaatam, moothrakrichram, asteela etc. (Ayurvedic)	:	2 hrs
Paurushagrandhi vikaarah – diagnosis, management (Modern)	:	2 hrs
Sukravahasroto vikaarah – diagnosis, management (Modern)	:	2 hrs
Total	:	14 hrs

Module 15

Medravikaaraah – lakshnaan, chikitsa (Modern)	:	2 hrs
Vrishanavikaaraah – lakshanaani, chikitsa (Modern)	:	3 hrs
Vridhiroga – classification, lakshanaani, chikitsa (Ayurvedic)	:	3 hrs
Anatrachyti vikaaraah (Hernias), classification Diagnosis, management (Modern)	:	6 hrs
(Include 1 hrs lecture on tranplantation surgery)	:	6 hrs
Total	:	14 hrs

Foregoing Modules and contents were finalized in the meeting of the Teachers of Salyathanthra from all Ayurveda Colleges in Kerala convened at Vaidyaratnam Ayurveda College, Ollur on 13 January 2004 as per the directions from the Director, Ayurveda Medical Education (DAME), Thiruvananthapuram.

THIRD PROFESSIONAL B.A.M.S EXAMINATION

(First Periodical Examination)

Question Paper No.1 (Part A)

1. Explain signs and symptoms of 'Roheethaka vrana' and correlate these by virtue of modern explanation? (5)
2. Briefly describe the stages of union of fracture? (5)
3. Write the clinical features of shock? (5)
4. Define parenteral fluid therapy? Enumerate the commonly used parenteral fluids? (5)
5. Explain the differences between vranasopha and sopha? (2)
6. Types of naleevrana as per sushruta? (2)
7. Brief fissure in ano? (2)
8. Indication of Jalookavachranam in Arsas? (2)
9. Samanya lakshanas of anthergatha salya ? (2)
10. Write the snayu marmabigatha lakshanas? (2)
11. Name the sandhimuktha bagna? (2)
12. Describe the bagna sadhya asadhyatwam based on the age of the patients? (2)
13. Enumerate the vrana vasthu? (2)
14. Write the name and yoga of a varthi effective in naleevrana (2)
15. Name the commonly used plaster spicas? (1)
16. Name the bandhanas in long bone fractures? (1)

17. Name the bones where traction can be applied in case of fracture? (1)
18. What is the main component of gandha thaila? (1)
19. Agraoushada for bhanga? (1)
20. Which fracture has the complication –mannus valgus? (1)
21. What are the dislocation of the elbow joint? (1)
22. Reverse type of collies fracture? (1)
23. Treatment principle for the sakha bhanga ? (1)
24. Name the classical methods for the reduction of anterior dislocation of shoulder joint? (1)

Distribution of practical marks

Total marks 100

1. Daily work 10
2. Case history, identification of instruments 30
3. Short case 20
4. Long case 30
5. Viva – Voce 10

Textbooks

1. Susruta Samhitha Text with English Translation – Dr. K.R.Srikantha Murthy (JA)
2. Introduction to oncology (cancer) in Ayurveda – Dr. J.L.N.Sastry (JA)
3. Research Methodology for Ayurvedic Post Graduate Scholars/Researchers and Doctors – Dr. S.Suresh Baby and Dr. P.Jyopthi (JA)
4. Geriatrics in Ayurveda – Dr. S.Suresh Babu and Dr. M.Madhavi (JA)
5. Myopathy Ayurvedic Perspective – Dr. S.Suresh Babu (JA)
6. Ayurvedic management for Heart diseases – Dr. J.L.N.Sastry and Dr. K.Nisteswar (JA)
7. Abhinava salya vijnana (1 – 2 part) – K.K.Thakral & R.B.Sati (JA)
8. Salya Siddhanta Kaumudi (1 – 2 Vol.) – Mukund Swarup Varma (JA)

9. Clinical Salya vijnana – Akhilanand Sharma (JA)
10. Salyathantra samuchaya – Vamdev Sharma (JA)
11. Salya vijnana (1- 2 parts) – Surendra Kumar Sharma (N)
12. Salya Pradipika – Dr. Mukund Swarup Varma (V)
13. Sausruthi – Ramanath Dwivedi (A)
14. Susrutha Samhitha – Hindi Commentary (1 – 2 part) – Kaviraja Ambikadatta Sastri (K)
15. Ayurveda Darsana OR the Reference of Charaka, Susrutha and Vagbhata – Dr. S.V.Shukla (JA)
16. Short Notes of of Charaka Samhitha – Dr. S.V.Shukla (JA)
17. Short notes of Susrutha Samhitha – Dr. S.V.Shukla (JA)
18. Short notes of Ashtanga Samgraha (Vol. 1 – 2) Dr. S.V.Shukla (JA)
19. Susrutha Nidana – commentary by B.G.Ghrekar
20. Ashtanga Hridayam (Nidanam)
21. Madhava Nidanam
22. Bhavaprakasham
23. Bailey & Love's – short practice of surgery – revised by Charles V.Mann, Norman S.Williams
24. A manual guide on clinical surgery – S.Das
25. Lee's Synopsis of Anaesthesia – R.S.Atkinson, G.B.Rushman, N.J.H.Davies
26. Diagnostc Radiology and Imaging – Kakaral Subbarao, Samir Banerjee, Sudarshan aggraval, Sathish Bhargava
27. Diagnostic Radiology and Imaging – Vol 2, Kakarla Subbarao, Samir Banerjee, Sudarshan Aggarwal, Sathish Bhargava
28. Charaka Chikitsa
29. Principles of General Surgery by K.N.Udupa
30. Surgical ethics in Ayurveda by Singal
31. Synopsis of medical instruments by Arora (bandages.instruments)
32. Demonstration of physical signs in clinical surgery by Haridas Baily

Clinical case record for Salyathanthram

Personal Data

Name	Case No.
Age	Ward No.
Sex	Bed. No.
Address	DOA
	DOD
Married / Single	Occupation
Nearest Relative	
Presenting complaints and duration	

History of past illness of (for surgery or otherwise) or childhood illness of relevance

Personal history

Family history

- a. Physical examination
 1. General survey
 - a. Appearance
 - b. Facies
 - c. Attitude
 - d. Decubitus

II. Vital Data

- a. Blood pressure
- b. Respiration
- c. Temperature
- d. Pulse rate

Rhythm

Volume

Tension

B. Systemic examination

Cardiovascular system

Respiratory system alimentary system

Genito urinary system

Nervous system

Haemopoetic and reticula – endothelial systems

Examination of bones, joints and skin

Endocrine system

C. Local examination

- i. Inspection
- ii. Palpation
- iii. Percussion
- iv. Auscultation
- v. Measurement

D. Specific examination

I. Vrana Type : Nija / aaganthu

1. Vranasayas

Twak	Sandhi
Mamsa	Asthi
Sira	Koshtam
Snayu	Marmam

2. Sadyovranam

Ghrishtam	Nipathitham
Avakritham	Vidham
Vichinnam	Bhinnam
Pravilambi	Vidalitham

3. Vranithopadravas

Visarpam	Pakshaghatam	Sirasambha	
Apatanakam			
Moham	Unmadam	Vranarujam	Jwaram
Thrishna	Hanugraham	Kasam	Chardi
Athisaram	Hikka	Swasam	Vepadhu
Arochakam	Avipakam	Moorcha	

4. Vranopadravas

Gandham	Varnam	Sravam
Vedana	Aakrithi	

II. Bhanga Type : Sandhibhangam / Asandhibhagam

1. Sandhibhangam

Utpishtam Avakshiptam

Vislishtam Athikashiptam

Vivarthitham Tiryakshiptam

2. Asandhibhagam

Karkatakam Asthichallitham Vakram

Aswakarnam Kandabhangam Chinnam

Chooraritham Manjjanugatham Pathitham

Pischitham Athipathitham Sphutitham

Other examinations

A. Vrana pareeksha and Bhagandhara Pareeksha

i. Size and Shape

ii. Number

iii. Position

iv. Edge

v. Floor

vi. Base

vii. Discharge

viii. Surrounding area

ix. Tenderness

x. Depth

- xi. Bleeding
- xii. Relations with deeper structures

B. Regional lymph nodes

- i. Enlarge
- ii. Tender
- iii. Soft
- iv. Firm
- v. Hard
- vi. Stony hard
- vii. Fixed

C. Bhanga Pareeksha

- i. Deformity
- ii. Shortening
- iii. Skin changes
- iv. Bony tenderness
- v. Swelling
- vi. Abnormal mobility
- vii. Crepitus
- viii. Absence of transmitted movements
- ix. Movements of proximal and distal joints
- x. Injuries to arteries / nerves / tendons / viscera

Ashtasthana Pareeksha

1. Nadi
2. Moothram
3. Malam
4. Jihwa
5. Sabdam
6. Sparsam
7. Drik
8. Aakrithi

Vikirithi pareeksha (Dasavidha Pareeksha)

Dooshyam

Desam

Balam

Kaalam

Analam

Prakrithi

Vayas

Satwam

Saatmyam

Aaharam

Rogadhishtanam

Avastha

Aamam

Pachyamanam

Pakvam

apakvam

Provisional diagnosis

Special investigation

1. Urine
2. Blood
3. Stool
4. Sputum
5. Biopsy report
6. Radiology report
7. Other examinations if any and their reports

Clinical diagnosis

Diagnosis

Principle of management

Management

1. Pre-operative procedures and materials for management
2. Operative procedure
3. Post – operative procedure
4. Conservative management

Date	Medicine	Dose	Time & Mode of use	Remarks

V. Follow up studies

Pathya

Apathya

Result

Case prepared by

Remarks

Signature of student

Signaturing Authority