

**RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES,
KARNATAKA.**

4TH T BLOCK, JAYANAGAR, BANGALORE

**REVISED ORDINANCE GOVERNING
B.A.M.S DEGREE
PROGRAMME 2012**

Notification

AIMS AND OBJECTS:

Ayurveda education should aim at producing graduates of profound scholarship having deep basis of Ayurveda with scientific knowledge in accordance with Ayurvedic fundamentals with extensive practical training who would be able and efficient teachers, research workers and kaya Chikitsaka (Physicians) and Shalyachikitsaka (Surgeons) fully competent to serve in the medical and health services of the country.

Revised Regulations Governing B.A.M.S. Degree Course- 2012
Eligibility for Admission, Duration, Attendance and Scheme of Examination

1. ELIGIBILITY

1.1 Qualifying Examination

A candidate seeking admission to first BAMS course:

Shall have passed two years Pre University examination conducted by Department of Pre-University Education, Karnataka State, with English as one of the subjects and Physics, Chemistry and Biology as optional subjects. The candidate shall have passed subjects of English, Physics, Chemistry and Biology individually also. Preference will be given to candidates knowing Sanskrit.**

OR

Shall have passed any other examination conducted by Boards/Councils/Intermediate Education established by State Governments/ Central Government and recognised as equivalent to two year Pre University examination by the Rajiv Gandhi University of Health Sciences/Association of Indian Universities (AIU), with English as one of the subjects and Physics, Chemistry and Biology as optional subjects and the candidate shall have passed subjects of English, Physics, Chemistry and Biology individually.

The candidates who have passed the B. Sc Part- I degree examination of any University or equivalent examination conducted by statutory Universities or Boards with Science subjects namely Physics, Chemistry, Biology or Botany & Zoology and secured not less than 50% of marks in the aggregate are eligible for admission to I BAMS Course, provided the candidate has passed the PUC examination with Physics, Chemistry, Biology, and English as one of the languages.

iv) Candidates who have passed B. Sc degree examination of any University in India or recognised as equivalent thereto with any three (3) Science subjects with not less than 50% of marks in the aggregate are eligible for admission to BAMS Course provided they have passed in the deficient Scien Zoology), and English as one of the languages at the Pre-University or B. Sc Part 1 level. However in the case of students belonging to SC / ST and Category –1, the minimum requirement in percentage of marks for admission to BAMS Course is relaxed by 10% marks.

1.2 Marks

The selection of students to medical colleges shall be based on merit provided that: In case of admission on the basis of qualifying examination, a candidate for admission to BAMS course must have passed individually in the subjects of Physics, Chemistry, Biology and English and must have obtained a minimum of 50% marks taken together in Physics, Chemistry and Biology in the qualifying examination(2nd PUC). In respect of candidates belonging to Scheduled Castes, Scheduled Tribes or Other Backward Classes, the marks obtained in Physics,

Chemistry and Biology taken together in qualifying examination be 40% instead of 50% as above.

In case of admission on the basis of competitive entrance examination, a candidate must have passed individually in the subjects of Physics, Chemistry, Biology and English and must have obtained a minimum of 50% marks in Physics, Chemistry and Biology taken together at the qualifying examination (2nd PUC) and in addition must have come in the merit list prepared as a result of such competitive entrance examination by securing not less than 50% marks in Physics, Chemistry and Biology taken together in the competitive examination. In respect of candidates belonging to Scheduled Castes, Scheduled Tribes or Other Backward Classes the marks obtained in Physics, Chemistry and Biology taken together in qualifying examination and competitive entrance examination be 40% instead of 50% as stated above.

1.3 Age : The candidate should have completed 17 years on or before 31st day of December of the year of admission.

2. DURATION OF THE COURSE

Total duration of the course is Five & Half years, inclusive of Internship.

Every student shall undergo a period of certified study extending over 4½ academic years from the date of commencement of his study for the subject comprising the B.A.M.S.curriculum to the date of completion of the examination followed by one year compulsory rotating Internship. The 4 ½ years course has been divided into four phases plus internship.

- I Professional – Twelve (12)months .
- II Professional - Twelve (12)months.
- III Professional - Tveve (12)months.
- IV Professional - Eighteen (18)months
- Compulsory Internship- Twelve (12) months.

3. DEGREE TO BE AWARDED:

The candidate shall be awarded degree AYURVEDACHARYA (Bachelor of Ayurvedic Medicine and Surgery) after completion of prescribed courses of study extending over the prescribed period and passing the final examination and satisfactorily completion of one year compulsory internship after the final examination.

4.MEDIUM OF INSTRUCTION:

English or Kannada.

5. THE NUMBER OF STUDENTS TO BE ADMITTED:

The admission should be made strictly in accordance with the student bed-ratio of 1:3 i.e. on the basis of three beds in the hospital attached with the college one student should be admitted every year. The minimum number of student to be admitted in an Ayurvedic College should be 20

6.ATTENDANCE

Every candidate should have attendance not less than 75% of the total classes conducted in theory and practical separately in each academic year calculated from the date of

commencement of the term to the last working day as notified by the University in each of the subjects prescribed to be eligible to appear for the university examination subject to the condition that his / her progress and conduct are counted to be satisfactory by the Principal.

The Principal should notify at the College the attendance details at the end of each term without fail under intimation to this University.

A candidate lacking in the prescribed attendance and progress in any subject(s) in theory or practical/clinical in the first appearance should not be permitted to appear for the examination in that subject(s).

7. Internal Assessment

College level Internal assessment examinations are to be conducted without fail. 50% passing marks in the college level internal assessment examinations will be considered as eligibility for final (annual) examinations & marks obtained in internal assessment examinations will not be considered in the university marks card, however once in 6 months college level examinations should be conducted.

8.1 FIRST PROFESSIONAL EXAMINATION

- I. The first professional examination shall be at the end of one academic year of first professional session. The first professional session will ordinarily start in July.
- II. The first professional examination shall be held in the following subjects :
 1. Padartha vijnana evam ayurveda ithihas.
 2. Sanskrita
 3. Kriya shareera (Physiology)
 4. Rachana shareera (anatomy)
 5. Moulika sidhanta evam ashtanga hridaya (sutrasthana)

111. A student failed in not more than 2 subjects shall be held eligible to keep the terms for the second professional course. However he/she will not be allowed to appear for second professional examination unless he/she passes in all the subjects of the first professional.

8.2 SECOND PROFESSIONAL EXAMINATION :

- I. The second professional session shall start every year in the month of July following the completion of first professional examination.
The second professional examination shall be ordinarily held and completed by the end of month of JUNE/JULY every year after completion of one year of second professional session.
- II. The second professional examination shall be held in the following subjects:
 1. Dravyaguna vijnana (Pharmacology and material medica)
 2. Rasashastra- Bhaishajya kalpana (Pharmaceutical science)
 3. Agadatantra and vyavahara ayurveda evam vidhi vaidyaka (Toxicology and medical jurisprudence)
 4. Charaka- purvardha

111. A student failed in not more than two subjects shall be held eligible to keep the terms for the third professional examination, however he/she will not be allowed to appear for third professional examination unless he/she passes in all the subjects of second professional examination.

8.3 THIRD PROFESSIONAL EXAMINATION :-

- i. The third professional session shall start every year in the month of July following completion of second professional examination. The third professional examination shall be ordinarily held and completed by the end of the month of JUNE/JULY every year after completion of one year of third professional session.
- ii. The third professional examination shall be held in the following subjects: -
 1. Roganidana vikriti vijnana (pathology and microbiology)
 2. Charak samhita- uttarardh
 3. Swasthavritta and yoga (preventive and social medicine and yoga)
 4. Prasuti and striroga (gynaecology and obstetrics)
 5. Balaroga (paediatrics)
- iii. A student failed in not more than two subjects shall be held eligible to keep the terms for the final professional examination, however he/she will not be allowed to appear for the final professional examination unless he/she passes in all the subjects of third professional examination.

8.4 FINAL PROFESSIONAL EXAMINATION :-

The final professional session will be of one and half year duration and shall start every year in the month of July following completion of third professional examination. The final professional examination shall be ordinarily held & completed by the end of month of DEC/JAN. Every year after completion of one and half year of final professional session.

ii) final professional examination shall comprise of the following subjects :-

1. Shalya tantra (general surgery)
2. Shalakyta tantra (diseases of head and neck including ophthalmology , ENT and dentistry)
3. Kayachikitsa (internal medicine –including manas roga, rasayana & vajikarana)
4. Panchakarma
5. Research methodology & medical-statistics.

9.COMPULSORY INTERNSHIP

Duration of internship: 1 year

The student will join compulsory internship programme after passing the final professional examination. The internship programme will start after declaration of the result of final professional examination. The period of internship will be one year.

10. Assessment

After completing the assignment in various sections, they have to obtain a certificate from the head of the section in respect of their devoted work in the section concerned and finally submitted to the principal/ head of the institute so that completion of successful internship can be granted.

11. Migration of Internship: Migration of internship will be only with the consent of both the college and university, in case of migration is between two different universities and colleges. In case migration is only college to college but university is not change, only the consent of both the colleges will be required. The migration will be accepted by the university on the production of the character certificate issued by the institute and application forwarded by the college and university with NOC as case may be

12. Examination:

- i. Theory examination shall have minimum 20% short answer questions having maximum mark upto 40% and minimum 4 questions for long explanatory answers having maximum marks upto 60%. These questions shall cover entire syllabus of the subject.
- ii. Candidate obtaining 75% marks in the subject shall be avoided distinction in the subject.
- iii. The minimum marks required for passing the examination shall be 50% in theory and practical separately in each subject.
- iv. The supplementary examination will be held within 6 months of regular examination and failed students shall be eligible to appear in its supplementary examination as the case may be.
- v. Minimum 75% attendance **of the student** in each subject separately in theory and practical shall be essential for appearing in the examination. **In this regard** a class attendance card shall be maintained for each student for different subjects. The principal shall arrange to obtain the signature of the students, teachers at the end of each course of lectures and practical instructions and send the cards to each head of the department for the final completion before the commencement of each examination.
- vi. In case student fails to appear in regular examination for cognitive reason, he or she will appear in supplementary examination as regular students. In such cases his/ her non appearance in regular examination will not be treated as an attempt. Such students after passing examination will join the studies with regular students and appear for next professional examination after completion the required period of the study
- vii. The following facts may be taken into consideration in determining classwork in the subject :-
 - i. Regularity in attendance
 - ii. Periodical tests

iii. Practical copy

MIGRATION

The students may **be allowed to** take the migration to continue his/her study to another college after passing the first year examination. Failed students transfer and mid-term migration will not be allowed. For migration, the students shall have to obtain the mutual consent of both colleges and universities and will be against the vacant seat after obtaining NOC from CCIM.

13.1 NUMBER OF PAPERS AND MARKS FOR THEORY/ PRACTICAL:

Name of the subject	Number of hours of teaching			Details of maximum mark			
	Theory	Practical	Total	Number of papers	Theory	Practical	Total
1st professional							
1.padartha vigyana evam ayurveda ka Itihasa	100	-	100	Two	200	-	200
2.sanskrit	200	-	200	one	100	-	100
3.kriya shareera	175	150	325	Two	200	100	300
4.rachana shareera	225	200	425	Two	200	100	300
5.moulika siddantha evam astanga hridaya(sutra stana)	150	-	150	one	100	-	100
2nd professional							

1. Dravyaguna vigyana	175	200	375	Two	200	200	400
2. agada tantra, vyavahara ayurveda evam vidhi vaidyaka	100	100	200	One	100	50	150
3. rasa shastra evam bhaishajya kalpana part-1	175	200	375	Two	200	200	400
4. charaka samhita (purvardh)	150	-	150	One	100	-	100

3rd professional							
1. Roga vigyana evam vikriti vigyana	150	100	250	Two(01-pathology 01-ayurveda)	200	100	300
2. Swastha vritta and yoga	150	100	250	Two	200	100	300
3. Prasoti tantra and stri roga	175	100	275	Two	200	100	300
4. Bala roga	100	100	200	One	100	50	150
5. Charaka samhita(uttar ardha)	150	-	150	One	100	-	100
Final professional							
1. Kaya chikitsa	300	200	500	Two	200	100	300
2. panchakarma	100	200	300	One	100	50	150
3. shalya tantra	200	150	350	Two	200	100	300
4. shalakya tantra	200	150	350	Two	200	100	300

5. research methodology & medical statistics	50	-	50	One	50	-	50
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NOTE: the period of theory and practice shall not be less than 60 minutes(one hour). The duration of the practical of clinical subjects and Rachana Sharira (Dissection) shall be of atleast 120 minutes (2 hours).

13.2 clinical training of students will start from third year onwards.

13.3 The clinical training in the hospital attached with college to the students shall be as follows:-

- i. kaya chikitsa**(indoor and outdoor): 18 months
 - a) kayachikitsa(samanya) 06 months
 - b) manasroga 03 months
 - c) rasayana & vajikarana 03 months
 - d) panchakarma 03 months
 - e) rog vigyana vikriti vigyana 03 months
- ii. shalya** (indoor and outdoor) 09 months
 - a) shalya (samanya) 03 months(atleast one month in OT)
 - b) shalya (kshar & anushastra karma) 03 months (atleast one month in OT)
 - c) ksharasutra 02 months
 - d) anaesthesia 15 days
 - e) radiology 15 days
- iii. shalakya tantra** (indoor and outdoor) 04 months(atleast one month in OT)
- iv. prasuti tantra evum stree roga** 03 months(outdoor & indoor)
- v. kaumara bhritya** (outdoor and indoor) 01 month
- vi. Atyavika (casualty)** 02 months

14. qualifications & experience for teaching staff for UG teachers:

(applicable for direct recruitment but age will be relaxed in case of promotion)

i. essential:

- a) a degree in ayurveda from a university established by law or a statutory board / faculty / examining body of Indian medicine or its equivalent as recognised under Indian medicine central council act, 1970.
- b) A post graduate qualification in the subject / speciality concerned included in the schedule to Indian medicine central council act, 1970.

ii. Experience:

a) for the post of professor:

total teaching experience of ten years in concerned subject is necessary out of which there should be five years teaching experience as reader / associate professor in concerned subject.

b) For the post of associate professor (reader):

Teaching experience of five years in concerned subject.(reader will be treated as associate professor).

c) For the post of asst. Professor (lecturer): (age not exceeding 40 years).

No teaching experience is required. Lecturer will be treated as asst. Professor.

d) Qualification for the post of head of the institution (principal/ dean/director):

The qualification and experience prescribed for the post of professor shall be essential for these posts.

Note:- in absence of the candidate of post-graduate qualification in concern subject the candidate of the following subjects as mentioned against them shall be eligible for the post of lecturer/asst.professor:-

Speciality required	Name of the allied subject
1.swasta vritta	1.Kayachikitsa
2.agada tantra	2.Drvyaguna/Rasashastra
3.roga vignana	3.Kayachikitsa
4.rachana shareera	4.Shalya
5.Kriya shareera	5.Samhita Siddanta
6.Shalakya	6.Shalya
7.Panchakarma	7.Kayachikitsa
8.Balaroga	8.Prasuti and Striroga/Kayachikitsa
9.Kayachikitsa	9.Manasaroga
10.Shalya	10.Nischetana evam ksha-kirana

a.The above provision of allied subject will be allowed for five years.

b. The teacher(s) who had been considered eligible in the past on the basis of previous regulations shall not be considered ineligible on the basis of amendment.

15. Appointment of Examiner in Ayurveda: No person other than regular/Retired teacher with minimum eight years teaching experience in the concerned subject shall be considered eligible for an examiner.

RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES

BANGALORE

SYLLABUS OF AYURVEDACHARYA (BAMS) COURSE

INDEX

1ST PROFESSIONAL	
<u>1.1 PADARTHA VIGYAN AND AYURVED ITIHASA</u>	1-7
<u>1.2 SANSKRIT</u>	8-9
<u>1.3 KRIYA SHAREERA</u>	10-15
<u>1.4 RACHANA SHAREERA</u>	16-22
<u>1.5 MAULIK SIDDHANTA EVUM ASTANGA HRIDYA</u>	23

PADARTHA VIGYAN EVUM AYURVEDA ITIHASA

(Philosophy and History of Ayurveda)

Padartha Vigyanam

Theory- Two papers– 200 marks (100 each paper)

Total teaching hours: 100 hours

PAPER-I

100 marks

PART A

50 marks

1. Ayurveda Nirupana

1. Lakshana of Ayu, composition of Ayu.
2. Lakshana of Ayurveda.
3. Lakshana and classification of Siddhanta.
4. Introduction to basic principles of Ayurveda and their significance.

2.

2. Ayurveda Darshana Nirupana

1. Philosophical background of fundamentals of Ayurveda.

Etymological derivation of the word “Darshana”. Classification and general introduction to schools of Indian Philosophy with an emphasis on: Nyaya, Vaisheshika, Sankhya and Yoga.

2. Ayurveda as unique and independent school of thought (philosophical individuality of Ayurveda).
3. Padartha: Lakshana, enumeration and classification, Bhava and Abhava padartha, Padartha according to Charaka (Karana-Padartha).

3. Dravya Vigyaniam

1. **Dravya**: Lakshana, classification and enumeration.
2. **Panchabhuta**: Various theories regarding the creation (theories of Taittiriyaopanishad, Nyaya-Vaisheshika, Sankhya-Yoga, Sankaracharya, Charaka and Susruta), Lakshana and qualities of each Bhoota.
3. **Kaala**: Etymological derivation, Lakshana and division / units, significance in Ayurveda.
4. **Dik**: Lakshana and division, significance in Ayurveda.
5. **Atma**: Lakshana, classification, seat, Gunas, Linga according to Charaka, the method / process of knowledge formation (*atmanah jnasya pravrittih*).
6. **Purusha**: as mentioned in Ayurveda - Ativahikapurusha/ Sukshmasharira/ Rashipurusha/ Chikitsapurusha/ Karmapurusha/ Shaddhatvatmakapurusha.
7. **Manas**: Lakshana, synonyms, qualities, objects, functions, dual nature of mind (*ubhayaatmakatvam*), as a substratum of diseases, penta-elemental nature (*panchabhutatmakatvam*).
8. Role of Panchamahabhuta and Triguna in Dehaprakriti and Manasaprakriti respectively.
9. Tamas as the tenth Dravya.
10. Practical study/application in Ayurveda

PART B

50 marks

4. Gunavigyaniam

1. Etymological derivation, classification and enumeration according to Nyaya-Vaisheshika and Charaka, Artha, Gurvadiguna, Paradiguna, Adhyatmaguna.
2. Lakshana and classification of all the 41 gunas.
3. Practical / clinical application in Ayurveda.

5. Karma Vigyaniam

1. Lakshana, classification in Nyaya.
2. Description according to Ayurveda.
3. Practical study/ application in Ayurveda.

6. Samanya Vigyaniam

- 6.1 Lakshana, classification.
- 6.2 Practical study/ application with reference to Dravya, Guna and Karma.

7. Vishesha Vigyaniam

1. Lakshana, classification.
2. Practical study/ application with reference to Dravya, Guna and Karma.
3. Significance of the statement “*Pravrittirubhayasya tu*”.

8. Samavaya Vigyaniam

- 8.1 Lakshana
- 8.2 Practical study /clinical application in Ayurveda.

9. Abhava Vigyaniam

- 9.1 Lakshana, classification
- 9.2 Clinical significances in Ayurveda.

PAPER-I

Padartha Vigyan and Ayurveda Itihas

100 marks

PART A

75 marks

Pariksha

1. Definition, significance, necessity and use of *Pariksha*.
2. Definition of *Prama*, *Prameya*, *Pramata*, *Pramana*.
3. Significance and importance of *Pramana*, Enumeration of *Pramana* according to different schools of philosophy.
4. Four types of methods for examination in *Ayurveda* (*Chaturvidha-Parikshavidhi*), *Pramana* in *Ayurveda*.
5. Subsudation of different *Pramanas* under three *Pramanas*.
6. Practical application of methods of examination (*Parikshavidhi*) in treatment (*Chikitsa*).

• **Aptopdesha Pariksha/ Pramana**

- Lakshana of Aptopadesha, Lakshana of Apta.
- Lakshana of Shabda, and its types.
- Shabdavritti-Abhidha, Lakshana, Vyanjana and Tatparyakhya. Shaktigrahaheetu.
- Vaakya: Characteristics, Vaakyarthagyanahetu- Aakanksha, Yogyata, Sannidhi.

1. **Pratyaksha Pariksha/ Pramana**

1. Lakshana of Pratyaksha, types of Pratyaksha- Nirvikalpaka- Savikalpaka with description, description of Laukika and Alaukika types and their further classification.
2. Indriya-prapyakaritvam, six types of Sannikarsha.
3. Indriyanam lakshanam, classification and enumeration of Indriya. Description of Panchapanchaka, Penta-elemental nature of Indriya by Panchamahabhuta (*Panchabhautikatwa* of Indriya) and similarity in sources (*Tulyayonitva*) of Indriya.
4. Trayodasha Karana, dominance of Antahkaran.
5. Hindrances in direct perception (*pratyaksha-anupalabdihikaaran*), enhancement of direct perception (Pratyaksha) by various instruments/ equipments, necessity of other Pramanas in addition to Pratyaksha.
6. Practical study/ application of Pratyaksha in physiological, diagnostic, therapeutics and research grounds.

1. **Anumanapariksha/Pramana**

1. Lakshana of Anumana. Introduction of Anumiti, Paramarsha, Vyapti, Hetu, Sadhya, Paksha, Drishtanta. Types of Anumana mentioned by Charaka and Nyayadarshana.
2. Characteristic and types of Vyapti.
3. Lakshana and types of Hetu, description of Ahetu and Hetwabhasa.
4. Characteristic and significance of Tarka.
5. Practical study/ application of Anumanapramana in physiological, diagnostic, therapeutics and research.

Yuktipariksha/ Pramana

1. Lakshana and discussion.
2. Importance in Ayurveda.
3. Practical study and utility in therapeutics and research.

6. **Upamana Pramana**

1. Lakshana.

2. Application in therapeutics and research.

1. **Karya- Karana Siddhanta (Cause and Effect Theory)**

1. Lakshana of Karya and Karana. Types of Karana.
2. Significance of Karya and Karana in Ayurveda.
3. Different opinions regarding the manifestation of Karya from Karana: Satkaryavada, Asatkaryavada, Parinamavada, Arambhavada, Paramanuvada, Vivartavada, Kshanabhangurvada, Swabhavavada, Pilupaka, Pitharpaka, Anekantavada, Swabhavoparamavada.

PART B- Ayurveda Itihasa

25 marks

1. Etymological derivation (Vyutpatti), syntactical derivation (Niruktti) and definition of the word Itihasa, necessity of knowledge of history, its significance and utility, means and method of history, historical person (Vyakti), subject (Vishaya), time period (Kaal), happening (Ghatana) and their impact on Ayurveda.

2. Introduction to the authors of classical texts during Samhitakaal and their contribution: Atreya, Dhanwantari, Kashyapa, Agnivesha, Sushruta, Bhela, Harita, Charaka,

Dridhabala, Vagbhata, Nagarjuna, Jivaka.

1. Introduction to the commentators of classical Samhitas – Bhattarharicchandra, Jejjata, Chakrapani, Dalhana, Nishchalakara, Vijayarakshita, Gayadas, Arunadutta, Hemadri, Gangadhara, Yogindranath Sen, Haranachandra, Indu.
- 2.
3. Introduction to the authors of compendiums (Granthasamgrahakaala) – Bhavmishra, Sharngadhara, Vrinda, Madhavakara, Shodhala, Govinda Das (Author of Bhaishajyaratnawali), Basavraja.
4. Introduction to the authors of Modern era –Gana Nath Sen, Yamini Bhushan Rai, Shankar Dajishastri Pade, Swami Lakshmiram, Yadavji Tikramji, Dr. P. M. Mehta, Ghanekar, Damodar Sharma Gaur, Priyavrat Sharma.
- 5.
6. Globalization of Ayurveda – Expansion of Ayurveda in Misra (Egypt), Sri Lanka, Nepal other nations.
- 7.
8. Developmental activities in Ayurveda in the post-independence period, development in educational trends.
9. Establishment of different committees, their recommendations.
10. Introduction to and activities of the following Organizations :- Department of AYUSH, Central Council of Indian Medicine, Central Council for Research in Ayurvedic Sciences, Ayurvedic Pharmacopeia commission, National Medicinal Plants Board, Traditional Knowledge Digital Library (TKDL)
11. Introduction to the following National Institutions :
12. National Institute of Ayurved, Jaipur.
13. IPGT&RA, Gujrat Ayurved University, Jamnagar.
14. Faculty of Ayurved, BHU, Varanasi.
15. Rashtriya Ayurveda Vidyapeetha, New Delhi.
16. Drug and Cosmetic Act.
17. Introduction to national & international popular journals of Ayurveda.
18. Introduction to activities of WHO in the promotion of Ayurved.

Reference Books:-

A). Padartha Vigyan:-

- | | |
|---|--------------------------------|
| 1. Padarthavigyan | Acharya Ramraksha Pathak |
| 2. Ayurvediya Padartha Vigyana | Vaidya Ranjit Rai Desai |
| 3. Ayurved Darshana | Acharya Rajkumar Jain |
| 4. Padartha Vigyana | Kashikar |
| 5. Padartha Vigyana | Balwant Shastri |
| 6. Sankhyatantwa Kaumadi | GajananS hastri |
| 7. Psycho Pathology in Indian Medicine | Dr. S.P. Gupta |
| 8. Charak Evum Sushrut ke
Darshanik Vishay ka Adhyayan | Prof. Jyotirmitra Acharya |
| 9. Ayurvediya Padartha Vigyana | Dr. Ayodhya Prasad Achal |
| 10. Padartha Vigyana | Dr. Vidyadhar Shukla |
| 11. Padartha Vigyana | Dr. Ravidutta Tripathi |
| 12. Ayurvediya Padartha Vigyana | Vaidya Ramkrishna Sharma Dhand |
| 13. Ayurvediya Padartha Vigyan Parichaya | Vaidya Banwarilal Gaur |
| 14. Ayurvediya Padartha Darshan | Pandit Shivhare |

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|---|------------------|
| 15. Scientific Exposition of Ayurveda | Dr. Sudhir Kumar |
| 16. Relevant portions of Charakasamhita, Sushrutasamhita. | |

B) History of Ayurveda:-

- | | |
|---|-------------------------------|
| 1. Upodghata of Kashyapasamhita
Paragraph of acceptance of Indian medicine | Rajguru Hem Raj Sharma |
| 2. Upodghata of Rasa Yogasagar | Vaidy Hariprapanna Sharma |
| 3. Ayurveda Ka Itihas | KaviraSuram Chand |
| 4. Ayurveda Sutra | Rajvaidya Ram Prasad Sharma |
| 5. History of Indian Medicine (1-3 part) | Dr. GirindrNath Mukhopadhyaya |
| 6. A Short history of Aryan Medical Science | Bhagwat Singh |
| 7. History of Indian Medicine | J. Jolly |
| 8. Hindu Medicine | Zimer |
| 9. Classical Doctrine of Indian Medicine | Filiyosa |

10. Indian Medicine in the classical age	AcharyaPriyavrata Sharma
11. Indian Medicine (Osteology)	Dr. Harnley
12. Ancient Indian Medicine	Dr. P. Kutumbia
13. Madhava Nidan and its Chief Commentaries (Chapters highlighting history)	Dr. G.J. Mullenbelt
14. Ayurveda Ka BrihatItihasa	Vaidya Atridev Vidyalankara
15. Ayurveda Ka VaigyanikaItihasa	Acharya Priyavrata Sharma
16. Ayurveda Ka PramanikaItihasa	Prof. Bhagwat Ram Gupta
17. History of Medicine in India	Acharya Priyavrata Sharma
18. Vedomein Ayurveda	Vaidya Ram GopalS hastri
19. Vedomein Ayurveda	Dr. Kapil Dev Dwivedi
20. Science and Philosophy of Indian Medicine	Dr. K.N. Udupa
21. History of Indian Medicine from Pre-Mauryan to Kushana Period	Dr. Jyotirmitra
22. An Appraisal of Ayurvedic Material in Buddhist literature	Dr. Jyotirmitra
23. Mahayana Granthon mein nihita Ayurvediya Samagri	Dr. RavindraNathTripathi
24. Jain Ayurveda Sahitya Ka Itihasa	Dr. Rajendra Prakash Bhatnagar
25. Ayurveda- Prabhashaka Jainacharya	Acharya Raj Kumar Jain
26. CharakaChintana	Acharya Priyavrata Sharma
27. Vagbhata Vivechana	Acharya Priyavrata Sharma
28. Atharvaveda and Ayurveda	Dr. Karambelkara
29. Ayurvedic Medicine Past and Present	Pt. Shiv Sharma
30. Ancient Scientist	Dr. O.P. Jaggi
31. Luminaries of Indian Medicine	Dr. K.R. Shrikanta Murthy
32. Ayurveda Ke Itihasa Ka Parichaya	Dr. RaviduttaTripathi
33. Ayurveda Ke Pranacharya	Ratnakara Shastri
34. Ayurveda Itihasa Parichaya	Prof. Banwari Lal Gaur

1.2 SANSKRUTAM

THEORY – ONE PAPER – 100 MARKS

TEACHING HOUR – 200 Hours

PART A

50 marks

SAMSKRUTA VYAKARANA ADYAYANAM

1. Sangna prakaranam
2. Vibhaktyartha
3. Sandhi prakaranam (sandhi vicchedah , sandhi karanam)
4. Shadlinga prakaranam (shabdha roopanyevah)
5. Dhatu prakaranam (dhatu roopanyeva) (bhvadiganeeya dhatunam pancha latt, lott, langlatt, vidhi linga lakareshu roopani)
6. Vachya prayogah (kartari karmani bhava vachya prayogah)
7. Samaasa prakaranam
8. Pratyayah (nich, ktha, kthavathu, shat, shaanach, thumun, thavyath, thuch, kthwa, lyup, lyut, aneeyar, mathup, ini, than, ithach, ann, ing, ik, thwa, tha, shan, imm, nich, thah, thra, daa, tharap, thamap, thaap, gnaap)
9. Anuvaada .

From English/hindi /Regional language to Sanskrit

From Sanskrit to English/hindi/Regional language

Identification and correction of grammatical errors in the given sentences

The sentences for translation should be selected from the under mentioned reference books.

Laghu siddanta kaumudhi –Acharya Varadaraja (

(commentary by Sri Dhananand shastri)

Brihat trayee (Charak samhita,Sushrut samhita,astanga hrudaya)

Anuvada chandrika –Chakradhara ,hansa,Nautiyal.

4. sanskruta ayurveda sudha –Dr banwari lal gaur
5. rachananuvada kaumudi-Dr Kapildev dwivedi
6. Bhasha sopanam-published by Rashtreeya samskruta samsthana,New delhi

PART –B

50MARKS

BHASHADHYAYANAM.

- 1.)Ayurvedrsha grantha adhyayana karma;-Stepwise method of study of ayurveda Arsha Granthas(susrutha samhitha shareera sthana, chapter -4)
- 2.)Vaidyakiya subhashitha sahityam(adhyaya:1-10)
- 3.)panchatantram-aparikshitakarakam(kshapanaka kathathaha murkhapanditha kathaparyantham pancha kathaha)

REFERENCE BOOKS –

- 1)Sushruta samhita,shareera sthana,chapter-4
- 2)Prabhashanam work book,su.sam.chap-4 published by AYUEVEDA ACADEMY BANGLORE
Email-ayuacdemy @gmail.com.
- 3)vaidyakeeya subhashita sahityam-Dr.Bhaskar govinda ghanekar.
- 4)Panchatantra-(Apareekshitakarakam)-pt.Vishnu sharma

1.3 KRIYA SHAREERA **(PHYSIOLOGY)**

Two Papers-200 Marks (100 marks each)
Practicals-100 marks
Teaching hours-325 hours
Theory-175 hrs
Practicals-150 hrs

100 marks

PAPER- I **PART A**

50 marks

1. Conceptual study of fundamental principles of Ayurvediya Kriya Sharir e.g - Panchamahabhuta, Tridosha, Triguna, Loka-Purusha Samya, Samanya-Vishesha. Description of basics of Srotas.
2. Definition and synonyms of the term Sharir, definition and synonyms of term Kriya, description of Sharir Dosha and Manasa Dosha. Mutual relationship between Triguna- Tridosha & Panchmahabhuta. Difference between Shaarir and Sharir. Description of the components of Purusha and classification of Purusha, role of Shatdhatupurusha in Kriya Sharira and Chikitsa.
3. Dosh- General description of Tridosha. Inter relationship between Ritu-Dosha-Rasa-Guna. Biological rhythms of Tridosha on the basis of day-night-age-season and food intake. Role of Dosha in the formation of Prakriti of an individual and in maintaining of health. Prakrita and Vaikrita Dosha.
4. Vata Dosha: Vyutpatti (derivation), Nirukti (etymology) of the term Vata, general locations, general properties and general functions of Vata, five types of Vata (Prana, Udana, Samana, Vyana, Apana) with their specific locations, specific properties, and specific functions.

Respiratory Physiology in Ayurveda, Physiology of speech in Ayurveda.

- Pitta Dosha: Vyutpatti, Nirukti of the term Pitta, general locations, general properties and general functions of Pitta, five types of Pitta (Pachaka, Ranjaka, Alochaka, Bhrajaka, Sadhaka) with their specific locations, specific properties, and specific functions. Similarities and differences between Agni and Pitta.
- Kapha Dosha: Vyutpatti, Nirukti of the term Kapha, general locations, general properties and general functions of Kapha, five types of Kapha (Bodhaka, Avalambaka, Kledaka, Tarpaka, Śleshaka) with their specific locations, specific properties, and specific functions.

1. Etiological factors responsible for Dosha Vriddhi, Dosha Kshaya and their manifestations.
2. Concept of Kriyakala.

3. Prakriti:
4. Deha- Prakriti: Vyutpatti, Nirukti, various definitions and synonyms for the term 'Prakriti'. Intra-uterine and extra-uterine factors influencing Deha-Prakriti, classification and characteristic features of each kind of Deha-Prakriti.
5. Manasa- Prakriti: Introduction and types of Manasa- Prakriti.
6. Ahara: Definition, classification and significance of Ahara, Ahara-vidhi-vidhana, Ashta Aharavidhi Viseshayatana, Ahara Parinamkar Bhava.
7. Aharapaka (Process of digestion): Description of Annavaha Srotas and their Mula. Role of Grahani & Pittadhara Kala.
8. Description of Avasthapaka (Madhura, Amla and Katu). Description of Nishthapaka (Vipaka) and its classification. Separation of Sara and Kitta. Absorption of Sara. Genesis of Vata-Pitta-Kapha during Aharapaka process. Definition of the term Koshtha. Classification of Koshtha and the characteristics of each type of Koshtha.
9. Agni – Definition and importance, synonyms, classification, location, properties and functions of Agni and functions of Jatharagni, Bhutagni, and Dhatvagni.

PART- B

50 marks

Modern Physiology

1. Definition and mechanisms of maintenance of homeostasis. Cell physiology. Membrane physiology. Transportation of various substances across cell membrane.
2. Resting membrane potential and action potential.
3. Physiology of respiratory system: functional anatomy of respiratory system. Definition of ventilation, mechanism of respiration, exchange and transport of gases, neural and chemical control of respiration, artificial respiration, asphyxia, hypoxia. Introduction to Pulmonary Function Tests.
4. Physiology of Nervous System: General introduction to nervous system, neurons, mechanism of propagation of nerve impulse, physiology of CNS, PNS, ANS; physiology of sensory and motor nervous system, Functions of different parts of brain and physiology of special senses, intelligence, memory, learning and motivation. Physiology of sleep and dreams, EEG. Physiology of speech and articulation. Physiology of temperature regulation.
5. Functional anatomy of gastro-intestinal tract, mechanism of secretion and composition of different digestive juices. Functions of salivary glands, stomach, liver, pancreas, small intestine and large intestine in the process of digestion and absorption. Movements of the gut (deglutition, peristalsis, defecation) and their control. Enteric nervous system.
6. Acid-base balance, water and electrolyte balance. Study of basic components of food. Digestion and metabolism of proteins, fats and carbohydrates.

Vitamins & Minerals- sources, daily requirement, functions, manifestations of hypo and hypervitaminosis.

PAPER-II

100 marks

PART A

50 Arks

1. Dhatu:

Etymology, derivation, definition, general introduction of term Dhatu, different theories related to Dhatuposhana (Dhatuposhana Nyaya)

2. Rasa Dhatu:

Etymology, derivation, location, properties, functions and Praman of Rasa-dhatu. Physiology of Rasavaha Srotas, Formation of Rasa Dhatu from Aahara Rasa, circulation of Rasa (Rasa-Samvahana), role of Vyana Vayu and Samana Vayu in Rasa Samvahana. Description of functioning of Hridaya. Ashtavidha Sara (8 types of Sara), characteristics of Tvakasara Purusha, conceptual study of mutual interdependence (Aashraya-Aashrayi Bhaava) and its relation to Rasa and Kapha. Manifestations of kshaya and Vriddhi of Rasa.

3. Rakta Dhatu:

Etymology, derivation, synonyms, location, properties, functions and Praman of Rakta Dhatu. Panchabhautikatva of Rakta Dhatu, physiology of Raktavaha Srotas, formation of Raktadhatu, Ranjana of Rasa by Ranjaka Pitta, features of Shuddha Rakta, specific functions of Rakta, characteristics of Raktasara Purusha, manifestations of Kshaya and Vriddhi of Raktadhatu, mutual interdependence of Rakta and Pitta.

4. Mamsa Dhatu :

Etymology, derivation, synonyms, location, properties and functions of Mamsa Dhatu, physiology of Mamsavaha Srotasa, formation of Mamsa Dhatu, characteristics of Mamsasara Purusha, manifestations of Kshaya and Vriddhi of Mamsa Dhatu .Concept of Peshi.

5. Meda Dhatu :

Etymology, derivation, location, properties, functions and Praman of Meda Dhatu, physiology of Medovaha Srotas, formation of Medo Dhatu, characteristics of Medasara Purusha and manifestations of Kshaya and Vriddhi of Meda.

6. Asthi Dhatu:

Etymology, derivation, synonyms, location, properties, functions of Asthi Dhatu. Number of Asthi. Physiology of Asthivaha Srotas and formation of Asthi Dhatu, characteristics of Asthisara Purusha, mutual interdependence of Vata and Asthi Dhatu, manifestations of Kshaya and Vriddhi of Asthi Dhatu.

7. Majja Dhatu :

Etymology, derivation, types, location, properties, functions and Praman of Majjaa Dhatu, physiology of Majjavaha Srotas, formation of Majja Dhatu, characteristics of Majja Sara Purusha, relation of Kapha, Pitta, Rakta and Majja, manifestations of Kshaya and Vriddhi of Majja Dhatu.

8. Shukra Dhatu:

Etymology, derivation, location, properties, functions and Praman of Shukra Dhatu, physiology of Shukraravaha Srotas and formation of Shukra Dhatu. Features of Shuddha Shukra, characteristics of Shukra-Sara Purusha, manifestations of Kshaya and Vriddhi of Shukra Dhatu.

9. Concept of **Ashraya-Ashrayi** bhava i.e. inter-relationship among Dosha, Dhatu Mala and Srotas.

10. **Ojas**: Etymological derivation, definition, formation, location, properties, Praman, classification and functions of Ojas. Description of Vyadhikshamatva. Bala Vriddhikara Bhava. Classification of Bala. Etiological factors and manifestations of Ojavisramsas, Vyapat and Kshaya.

11. **Upadhatu**: General introduction, etymological derivation and definition of the term Upadhatu. Formation, nourishment, properties, location and functions of each Upadhatu.

12. **Stanya**: Characteristic features and methods of assessing Shuddha and Dushita Stanya, manifestations of Vriddhi and Kshaya of Stanya.

13. **Artava**: Characteristic features of Shuddha and Dushita Artava. Differences between Raja and Artava, physiology of Artavavaha Srotas.

14. Tvak: classification, thickness of each layer and functions.
14. **Mala:** Etymological derivation and definition of the term Mala. Aharamala: Enumeration and description of the process of formation of Aharamala.
15. Purisha: Etymological derivation, definition, formation, properties, quantity and functions of Purisha. Physiology of Purishavaha Srotas, manifestations of Vriddhi and Kshhaya of Purisha.
16. Mutra: Etymological derivation, definition, formation, properties, quantity and functions of Mutra. Physiology of Mutravaha Srotas, physiology of urine formation in Ayurveda, manifestations of Vriddhi and Kshhaya of Mutra.
17. Sveda: Etymological derivation, definition, formation and functions of Sveda. Manifestations of Vriddhi and Kshhaya of Sveda. Discription of Svedvaha Strotas
18. Dhatumala: Brief description of each type of Dhatumala.
18. **Panchagyanendriya:** Physiological description of Panchagyaanendriya and physiology of perception of Shabda, Sparsha, Rupa, Rasa and Gandha. Physiological description of Karmendriya.
19. **Manas:** Etymological derivation, definition, synonyms, location, properties, functions and objects of Manas. Physiology of Manovaha Srotas.
20. **Atma:** Etymological derivation, definition, properties of Atma. Difference between Paramatma and Jivatma; Characteristic features of existence of Atma in living body.
21. **Nidra:** Nidrotipatti, types of Nidra, physiological and clinical significance of Nidra; Svapnotipatti and types of Svapna.

PART –B

50 marks

Modern Physiology

Haemopoetic system – composition, functions of blood and blood cells, Haemopoiesis (stages and development of RBCs, and WBCs and platelets), composition and functions of bone marrow, structure, types and functions of

1. haemoglobin, mechanism of blood clotting, anticoagulants, physiological basis of blood groups, plasma proteins, introduction to anaemia and jaundice.
2. Immunity, classification of immunity: Innate, acquired and artificial. Different mechanisms involved in immunity: Humoral (B-cell mediated) and T-Cell mediated immunity. Hypersensitivity.
3. Muscle physiology – comparison of physiology of skeletal muscles, cardiac muscles and smooth muscles. Physiology of muscle contraction.
4. Physiology of cardio-vascular system: Functional anatomy of cardiovascular system. Cardiac cycle. Heart sounds. Regulation of cardiac output and venous return. Physiological basis of ECG. Heart-rate and its

regulation. Arterial pulse. Systemic arterial blood pressure and its control.

5. Adipose tissue, lipoproteins like VLDL, LDL and HDL triglycerides.
6. Functions of skin, sweat glands and sebaceous glands.
7. Physiology of male and female reproductive systems. Description of ovulation, spermatogenesis, oogenesis, menstrual cycle.
8. Physiology of Excretion – functional anatomy of urinary tract, functions of kidney. Mechanism of formation of urine, control of micturition. Formation of faeces and mechanism of defecation.
9. Endocrine glands – General introduction to endocrine system, classification and characteristics of hormones, physiology of all endocrine glands, their functions and their effects.

PRACTICAL

Ayurvedic practical

100 marks

Teaching hours 150

1. Assessment of Prakriti
2. Assessment of Dosha (Features of Vriddhi- Kshaya)
3. Assessment of Dhatu (Features of Vriddhi- Kshaya)
4. Assessment of Agni
5. Assessment of Koshtha
6. Assessment of Sara
7. Nadi pariksha

Modern physiology practical

1. Introduction to laboratory instruments- Simple & Compound Microscope, Scalp vein set, bulbs for blood collection, Sahli's Haemometer, Haemocytometer, pipettes, Urinometer, Albuminometer, Stethoscope, B.P. Apparatus, Harpenden's caliper, Clinical Hammer, Tuning Fork, Stop Watch, Thermometer, Centrifuge machine, ECG Machine
2. Collection of blood sample – prick, vene-puncture method, use of anticoagulants
3. Preparation of blood smear and staining
4. Estimation of Hemoglobin
5. Microscopic examination of blood
 - a. Total RBC count
 - b. Total WBC count
 - c. Differential leucocytes count
6. Packed cell volume (PCV) demonstration
 - ESR demonstration
 - Bleeding time, Clotting time

1. Blood grouping and Rh typing
2. Examination of Cardio-Vascular system
 - Pulse examination
 - Arterial blood pressure measurement
 - Examination of heart sounds
 - ECG demonstration

11. Examination of Respiratory system

- Respiratory rate
- Breath sounds
- Spirometry

12. Examination of Nervous System- Sensory & Motor.

13. Urine examination –Physical examination, chemical examination. Test for normal constituents of urine. Detection of specific gravity and reaction of urine.

Distribution of Practical marks

- | | | |
|---|--------------------------|------|
| ▪ | Laboratory Practical | - 20 |
| ▪ | Human Experiment | - 15 |
| ▪ | Spotting | - 15 |
| ▪ | Prakriti Saradi pariksha | - 20 |
| ▪ | Practical Record | - 10 |
| ▪ | Viva- voce | - 20 |

REFERENCE BOOKS:-

- Ayurvediya Kriyasharir - Ranjit Rai Desai
- Kayachikitsa Parichaya - C. Dwarkanath
- Prakrit Agni Vigyan - C. Dwarkanath
- Sharir Kriya Vigyan - Shiv Charan Dhyani
- Abhinava Sharir Kriya Vigyana - Acharya Priyavrata Sharma
- Dosha Dhatu Mala Vigyana - Shankar Gangadhar Vaidya
- Prakrita Dosha Vigyana - Acharya Niranjana Dev
- Tridosha Vigyana - Shri Upendranath Das
- Sharira Tatva Darshana - Hirlekar Shastri
- Prakrita Agni Vigyana - Niranjana Dev
- Deha Dhatvagni Vigyana - Vd. Pt. Haridatt Shastri
- Sharir Kriya Vigyana (Part 1-2) - Acharya Purnchandra Jain

- Sharir Kriya Vigyana - Shri Moreshwar Dutt. Vd.
- Sharira Kriya Vijnana (Part 1 and 2) – Nandini Dhargalkar
- Dosha Dhatu Mala Vigyana - Basant Kumar Shrimal
- Abhinava Sharir Kriya Vigyana - Dr. Shiv Kumar Gaur
- Pragyogik Kriya Sharir - Acharya P.C. Jain
- Kaya Chikitsa Parichaya - Dr. C. Dwarkanath
- Concept of Agni - Vd. Bhagwan Das
- Purush Vichaya - Acharya V.J. Thakar
- Kriya Sharir - Prof. Yogesh Chandra Mishra
- Sharir Kriya Vigyana - Prof. Jayaram Yadav & Dr. Sunil Verma.
- Basic Principles of Kriya-Sharir (A treatise on Ayurvedic Physiology) by Dr. Srikant Kumar

Panda

- Sharir Kriya – Part I & Part II – Dr. Ranade, Dr. Deshpande & Dr. Chobhe
- Human Physiology in Ayurveda - Dr Kishor Patwardhan
- Sharirkriya Vignyan Practical Hand Book– Dr.Ranade, Dr.Chobhe, Dr. Deshpande
- Sharir Kriya Part 1 – Dr.R.R.Deshapande, Dr.Wavhal
- Sharir Kriya Part 2 – Dr. R.R.Deshapande, Dr.Wavhal
- Ayurveda Kriya Sharira- Yogesh Chandra Mishra
- Textbook of Physiology - Gyton & Hall
- A Textbook of Human Physiology – A.K.Jain
- Essentials of Medical Physiology - Sembulingam, K.
- Concise Medical Physiology - Chaudhari, Sujit K.
- Principals of Anatomy & Physiology - Tortora & Grabowski
- Textbook of Medical Physiology- Indu Khurana

1.4 RACHANA SHAREERA **(ANATOMY)**

Theory- Two Papers-200 Marks–(100 marks each)

Practicals-100 marks

Teaching Hours-425 hours

Theory-225 hrs

Practicals-200 hrs

100 marks

**1. Shariro
pkram
aniya Shaarira**

**PAPER-I
PART-A**

50 marks

Sharira and shaarira vyakhya (definitions of sharira and shaarira), shadangatvam (six regions of the body), anga pratyanga vibhaga (sub divisions). Mrita sharir samshodhan. Shaarira shastra vibhaga, shaarira gyan prayojana . Constitution of purusha according to dhatubheda, panchabhautikatvam, trigunatmakatvam, tridoshamayatvam, karma purusha, and doshadhatumala-mulakatvam.

2. Paribhasha Shaarira

Kurcha, kandara, jala, asthisanghat, seemanta, seevani, rajju, snayu and lasika.

3. Garbha Shaarira

Garbha definitions, explanation of shukra, artava, garbhadhana. Role of tridosha and panchmahabhuta in the fetal development. Beeja, beejabhaga and beejabhagavayava, linga vinischaya, masanumasika garbha vridhikrama, garbhottpadakbhava, garbhavridhikara bhava, garbha poshana, apara nirmana , nabhinadi nirmana. Aanga pratyanga utpatti.

4. Pramana Shaarira: Anguli pramana.

5. Asthi Shaarira

Asthi vyakhya, number, types, asthi swarooma, vasa, meda and majja.

6. Sandhi Shaarira

Sandhi vyakhya, numbers, types of asthi sandhi.

7. Sira, Dhamani, Srotas Shaarira

- Definition, types and number of sira and dhamani.
- Description of Hridaya.
- Sroto shaarira: Definition, types of srotas and srotomula.

8. Peshi Shaarira

1. Peshi vyakhya, structure, types, number and importance.
2. Description of Peshi.

9. Koshtha Evam Ashaya Shaarira

3. Definition of koshtha and number of koshthanga.
4. Types and description of ashaya.

10. Kalaa Shaarira

Kalaa: definition and types.

11. Uttamangiya Shaarira

Shatchakra, ida, pingala and sushumna nadi - brief description.

12. Marma Shaarira

Marma: definition, number, location, classification, clinical importance with viddha lakshana. Explanation of trimarmas. Detail description of marmas.

13. Indriya Shaarira

Definition of indriya, indriya artha and indriya adhisthan, their number and importance. Description of gyanendria, karmendriya and ubhayendriya (manas).

PART-B

50 marks

1. Definition and branches of anatomy. Preservation methods of the cadaver.

2. Anatomical Terminologies

Anatomical position, Planes, and explanation of anatomical terms related to skin, fasciae, bones, joints and their movements, muscles, ligaments, tendons, blood vessels, nerves,.

3. Embryology

Definitions and branches of embryology. Embryo and fetus. Sperm and ovum, fertilization. Cleavage. Germ layers formation and their derivatives. Laws of heredity, Sex determination and differentiation, Month-wise development of embryo. Foetal circulation, placenta formation, Umbilical cord formation.

4. Osteology

Bone: Definition, ossification, structure and types. Description of bones with clinical anatomy.

5. Arthrology

Joints: Definition, structure types and movements. Description of joints of extremities, vertebral joints and temporomandibular joint with their clinical anatomy.

6. Cardiovascular system

1. Definition, types and structure of arteries and veins.

2. Description of heart and blood vessels with their course and branches.
3. Pericardium with applied aspect.

7. Lymphatic system

Definition, types and structure of lymph vessels, lymph glands with their clinical aspect.

8. Myology

a) Structure and types of muscles.

b) Description of muscles; their origin, insertion, actions, nerve supply and clinical anatomy.

PAPER-I

100 marks

PART A

50 marks

1. Respiratory System

1. Bronchial tree and lungs with their clinical aspects.
2. Respiratory tract: nasal cavity, pharynx, larynx, trachea, bronchial tree.
3. Pleura with its clinical aspects.
4. Diaphragm.

2. Digestive system

1. Organs of digestive tract (alimentary tract) with their clinical aspects.
2. Digestive glands: liver, spleen and pancreas.
3. Description of peritoneum with its clinical aspects.

3. Urinary System

Urinary tract: kidney, ureter, urinary bladder and urethra with their clinical aspects.

4. Reproductive system

- a. Male Reproductive system: reproductive organs, tract and glands (prostate and seminal vesicles) with their clinical aspects.
- b. Female reproductive system: reproductive organs, tract and glands with their clinical aspects.

5. Endocrinology

Definition, classification & description of endocrine glands (pituitary, thyroid, parathyroid, thymus and suprarenal glands) with clinical aspects.

PART B

50 marks

6. Nervous System

Nervous system: definition, classification and its importance. Description of brain and spinal cord.

Description of peripheral nervous system: cranial and spinal nerves, nerve plexuses, and autonomic nervous system, formation and circulation of cerebrospinal fluid and blood supply of brain and spinal cord.

7. Sensory organs

Description of structures of eye, ear, nose, tongue and skin with their clinical aspects.

8. Surface and radiological anatomy

- a. Study of radio-imaging of limbs, abdomen, pelvis and vertebral column with its clinical application.
- b. Surface anatomy of thoracic and abdominal viscera.

PRACTICALS

100 marks

Teaching hours: 200

1. P
ractical study of bones
2. Practical study of organs
3. Practical study of surface and radiological anatomy.

4. Shava vichhedana – detailed dissection of the whole body.
5. Practical study of location of marma
6. Demonstration of histology slides (10 slides)

Distribution of marks

1. Spotting - 20 marks
2. Dissected organs and histology slides - 20 Marks
3. Bones, joints, marma - 20 Marks
4. Surface & radiological anatomy - 10 Marks

- | | |
|------------------------|----------|
| 5. Practical records - | 10 Marks |
| 6. Viva-Voce - | 20 Marks |

Total **100 Marks**

Reference Books :-

S. No	Name of Book	Author
1	Brihat Shariram Vaidyaratna-	P.S. Varrier
2	Abhinava Shariram-	Acharya Damodar Sharma Gaur
3	Manava Sharir (Revised Edition)-	Prof. Dinkar Govind Thatte
4	Manava Bhruna Vigyana -	Prof. Dinkar Govind Thatte
5	Manava Anga Rekhankan Vikrian -	Prof. Dinkar Govind Thatte
6	Sharir Rachana Vigyan (English)-	Vaidya P.G. Athawale
7	Manual of Practical Anatomy Cunnigham Practical Manual Vol-1, Vol-2, Vol-3	
8	Clinical Anatomy in Ayurveda -	Prof. D.G. Thatte & Prof. Suresh Chandra
9	Sharir Rachna Vigyan (English)-	Prof. D.G. Thatte
10	Ayurvedic Human Anatomy -	Prof. Dr. Giridhar M. Kanthi
11	Regional Anatomy -	B. D. Chaurasia
12	Rachana Sharir Vigyana -	Dr. Mahendra Sing
13	elevant chapters of Brihtrayee and Laghuthrayee	
14	Gray's Anatomy	
15	Text Book of Human Anatomy-	Inderbir Singh
16	Clinical Anatomy-	Richard S Snell
17	Fundamentals of Human Anatomoy-	Dr. Chakraborty
18	Human Osteology -	Poddar

1.5 MAULIKA SIDDHANTA EVUM ASHTANGA HRIDAYA
(Basic Principles and Ashtang Hridaya- An ancient text of Ayurveda)

Theory- One Paper– 100 marks
Teaching Hours -150 hours

Part A **60**
marks

Ashtang Hridaya Sutrasthana Adhyaya 1 to 15

Part B **40**
marks

1. Ashtang Hridaya Sutrasthana Adhyaya 16 to 30
2. Description of Ashta Prakriti
3. Shastra Lakshan (Tantra), Tantraguna, Tantradosha, Tachitalya, Arthasraya, Kalpana

Reference Books:

1. Astang Hridaya : Hindi commentary by Lalchanda Vaidya
2. Astang Hridaya : Hindi commentary by Vd. B.L. Gaur
3. Astang Hridaya : English commentary by Dr. T. Sreekumar
4. Astang Hridaya : English commentary by Dr. Vishwavasu Gaur
5. Astang Hridaya : Sanskrit commentary by Hemadri
6. Astang Hridaya : Sanskrit commentary by Arunadatta
