

DPU

Dr. D. Y. PATIL VIDYAPEETH, PUNE
(Deemed to be University)

Regulations and Curriculum of
AYURVEDA
DEGREE COURSE - UG
(I-B.A.M.S.) PROGRAMME

Academic Year 2018-19 onwards



Dr. D.Y. PATIL VIDYAPEETH, PUNE
(Deemed to be University)

(Re-accredited by NAAC with a CGPA of 3.62 on a four point scale at 'A' Grade)
(An ISO 9001 : 2015 Certified University)

Dr. A. N. Suryakar
Registrar

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NOTIFICATION

In pursuance of the MHRD Notification No. F.10-12/ 2016-U.3 (A) dated 23rd February, 2018 the Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune have been included under the ambit of Dr. D. Y. Patil Vidyapeeth, Pune (Deemed to be University)

And whereas in pursuance of the resolution passed by the Board of Management at its meeting held on 21st July, 2018 vide Resolution No. BM-21(i)-18 the Curriculum of Ayurveda Degree Course-UG (1-B.A.M.S.) Programme for the Academic Year 2018-19 & onwards is hereby published.

The curriculum of 1 year Bachelor of Ayurvedic Medicine & Surgery (B.A.M.S.) consists syllabus for following courses:

1. Sanskrit
2. Padarth Vigyan evam Ayurved Itihas
3. Maulik Siddhanta evam Ashtanga Hriday
4. Rachana Sharir (Anatomy)
5. Kriya Sharir (Physiology)

This syllabus will be useful to all the concerned. This will come into force with immediate effect.




(Dr. A. N. Suryakar)
Registrar

Copy to:

1. PS to Chancellor for kind information of Hon'ble Chancellor, Dr.D.Y.Patil Vidyapeeth, Pune.
2. PS to Vice Chancellor for kind information of Hon'ble Vice Chancellor, Dr. D. Y. Patil Vidyapeeth, Pune.
3. The Principal, Dr. D. Y. Patil College of Avurved & Research Centre, Pimpri, Pune
4. The Controller of Examinations, Dr. D. Y. Patil Vidyapeeth, Pune.
5. Director (IQAC), Dr. D. Y. Patil Vidyapeeth, Pune.
6. Web Master for uploading on Website.

CONTENTS

Sr. No.	Contents	Page Nos.
1	Introduction	1
2	Goals of the BAMS Programme	2
3	Program outcomes	2
4	Regulations	3
	4.1 Eligibility for admission	3
	4.2 Registration	4
	4.3 Duration of programme	5
	4.4 Medium of instruction	5
	4.5 Programme outline with teaching hours	5
	4.6 Attendance	7
	4.7 University Examination	7
	4.8 Continuous Internal Assessment	12
5	Internship Training	15
	5.1 Duration	15
	5.2 Internship Programme and time distribution	15
	5.3 The clinical training	15
	5.4 Detailed guidelines of programme	16
	5.5 Rural internship	18
	5.6 Assessment	19
	5.7 Migration of internship	19

1. INTRODUCTION

The regulation of the Bachelor of Ayurvedic Medicine and Surgery (BAMS) programme conducted by the Dr. D. Y. Patil Vidyapeeth Pune, Deemed to be University (DPU) is in accordance with rules and regulations of the Central Council of Indian Medicine with the basic objective of providing quality education to enable students to undertake responsibilities as an Ayurvedic Practitioner, propagate knowledge of Ayurveda & cope with challenges, problems and opportunities in Ayurveda through active learning and continued education with competence and concern to ensure the practice of holistic health.

In order to achieve this, the emphasis of the programme will be on providing the following:

a. Sound Foundation

To function effectively as a Vaidya (Ayurvedic Physician), a thorough grasp over the medical concepts is imperative. For this, the educational process shall be perceived as an integrated evolving process and not merely as an acquisition of a large number of disjointed facts. A student shall have to pass through a training procedure, which encompasses the above, right from I BAMS to IV BAMS and also during the internship period. He / She shall undergo an education process wherein learning of Facts and Concepts right from first Year are in continuity, in an evolutionary and progressive pattern.

b. Execution

Greater emphasis shall be placed on teaching the applied aspects of all the subjects. All the courses need to be studied from Ayurvedic perspectives, with emphasis on applied aspects of Basic Principles in Ayurveda.

c. Inter-Departmental Co-ordination

All departments shall develop a cohesive well-defined programme of inter- departmental co-ordination for teaching of various courses.

d. Student centric Teaching- Learning Methodology

Students must be encouraged to participate in demonstrations, group discussions, seminars and clinics. All these to develop his personality, character, expressions and to ensure rapid grasp over the concepts.

e. Patient Oriented Teachings

The emphasis of the programme will be the patient as the centre of learning, in order to impart the integrated medical education of Ayurveda & Modern sciences. The educational process shall be community as well as hospital based.

2. GOALS OF THE BAMS PROGRAMME

- ❖ The prime purpose of our institute is to expand the area of Ayurvedic System of medicine through updated Education, Health Care & Research activities for the well-being of the Society.
- ❖ The Bachelor of Ayurveda education shall aim at producing graduates, having profound knowledge of Ashtanga Ayurveda supplemented with knowledge of scientific advances in modern medicine along with extensive practical training so as to become efficient physicians and surgeons fully competent to serve the health care services.

3. PROGRAMME OUTCOMES

The aim of the BAMS course is to impart thorough and comprehensive training to the candidate in the various aspects of Ayurveda so that at the end of the course he/she shall be able to perform the following:

- ❖ Recognize the importance of Ayurvedic Principles in the context of the health needs of the community.
- ❖ To be able to diagnose and manage acute and chronic diseases on the basis of clinical assessment and appropriately selected and conducted investigations.
- ❖ To be able to carry out efficient Ayurvedic management of all types of ailments after quickly assessing the patient and synthesizing available clinical and Investigational information to formulate totality of symptoms .
- ❖ To be able to identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitative, preventive measures/strategies.

- ❖ To keep abreast of the current knowledge and recent advances in the field by self learning and /or participating in Continuing Medical Education Programmes.
- ❖ To be able to critically analyze relevant published research literature and use them appropriately to influence practice of Ayurveda.

4. REGULATIONS

4.1 ELIGIBILITY FOR ADMISSION:

- (i) A candidate seeking admission to first BAMS course: Shall have passed examination conducted by HSC board with English as one of the subjects and Physics, Chemistry and Biology as optional subjects and secured not less than 50% of marks in the aggregate are eligible for admission to I BAMS Course.
- (ii) The candidate shall have passed subjects of English, Physics, Chemistry and Biology individually also or shall have passed any other examination conducted by Boards/Councils/Intermediate Education established by State Governments/ Central Government and recognized as equivalent to two year HSC board examination and secured not less than 50% of marks in the aggregate are eligible for admission to I BAMS Course.
- (iii) For reserved category or special category like physically handicapped students in 10+2, they shall be given relaxation of 10% in marks for admission in Bachelor of Ayurvedic Medicine and Surgery as per rules for time being in force.
- (iv) For foreign students any other equivalent qualification to be approved by the concerned authority may be allowed.
- (v) Minimum age for admission is 17 years as on 31st December in the year of admission for the First BAMS course.
- (vi) As per notification of Ministry of AYUSH dated 26.04.2017, admission in AYUSH UG courses shall be compulsorily through NEET merit list from the A.Y.2018-2019 or any other modification by the Ministry of AYUSH time to time.

- (vii) Indian Nationals, Non Resident Indians (NRI's), Overseas Citizen of Indian (OCI's), Persons of Indian Origin (PIO's) & Foreign Nationals are eligible for appearing in the NATIONAL ELIGIBILITY CUM ENTRANCE TEST (UG), 2018

4.2 REGISTRATION

Candidates whose name has been displayed in the merit list on the website are required to be present for counseling in stipulated time otherwise his / her admission will be considered as cancelled.

Certificates / Documents to be brought on the day of counselling for admission. (All the Originals & two sets of attested photocopies)

- Admit card of NEET (UG -2018)
- NEET (UG-2018) Mark sheet
- Nationality certificate issued by District Magistrate / Addl. District Magistrate or Metropolitan Magistrate (Competent Authority for issue of such certificate) / valid Indian passport / School Leaving Certificate of HSC/12th Std. indicating the nationality of the candidate as 'Indian'.
- S.S.C. (or equivalent) passing certificate (for Date of Birth)
- H.S.C. (or equivalent) examination mark sheet
- College Leaving Certificate
- Medical fitness Certificate
- Aadhaar Card
- Caste Certificate (if applicable)
- Caste Validity Certificate (if applicable)
- Non-creamy layer Certificate (if applicable)
- Gap affidavit (if applicable)
- For Person with disability (PWD) Candidates-Medical Fitness Certificate of Authorized Medical Board.

4.3 DURATION OF PROGRAMME

- I. The Bachelor of Ayurvedic Medicine and Surgery degree programme shall comprise a course of study spread over a period of **5 ½ years** including a Compulsory Rotatory Internship of one-year duration after passing the IV BAMS examinations.

The academic programme of studies is divided as follows:

Year	Duration
I BAMS	1 year
II BAMS	1 year
III BAMS	1 year
IV BAMS	1 ½ year
Internship	1 year

As mentioned above i.e., (i) Every candidate after passing IV BAMS examination shall undergo a Compulsory Internship for a period of twelve (12) months as per the procedure laid down in these regulations.

- II. On successful completion of Internship the University shall issue degree certificates to such candidates.

4.4 MEDIUM OF INSTRUCTION

The medium of instruction shall be in English, Sanskrit, Hindi & Marathi.

4.5 PROGRAMME OUTLINE WITH TEACHING HOURS

The courses for study and examination for the BAMS (Degree Course) shall be as following:

Sr. No.	Name of the Subject	Teaching Hours throughout the year		
		Theory	Practical	Total
I BAMS (1year) shall start in July and the first professional examination shall be at the end of one academic year of first professional session.				
1	Padarth Vigyan evam Ayurved Itihas	150 (130+20)	--	150
2	Sanskrit	100	--	100
3	Kriya Sharir (Physiology);	180	180	360
4	Rachana Sharir (Anatomy)	180	180	360

Sr. No.	Name of the Subject	Teaching Hours throughout the year		
		Theory	Practical	Total
5	Maulik Siddhant evam Ashtanga Hridaya (Sutra Sthan)	120	--	120
II BAMS (1year) shall start every year in the month of July following completion of first professional examination and the second professional examination shall be ordinarily held and completed by the end of month of May or June every year after completion of one year of second professional session.				
1	Dravyaguna Vigyan	200	200	400
2	Roga Nidan evam Vikriti Vigyan	200	200	400
3	Rasashastra evam Bhaishjya Kalpana	200	200	400
4	Charak Samhita (Purvardh)	200	--	200
III BAMS (1 year) shall start every year in the month of July following completion of second professional examination and the third professional examination shall be ordinarily held and completed by the end of the month of May or June every year after completion of one year of third professional session.				
1	Agad Tantra, Vyavhar Ayurved evam Vidhi Vaidyak	200	100	300
2	Charak Samhita (Uttarardh)	200	--	200
3	Swasthavritta and Yoga	200	100	300
4	Prasuti evam Striroga	200	200	400
5	Kaumarbhritya Tantra (Bal Roga)	100	100	200
IV BAMS (1 and ½ year) shall start every year in the month of July following completion of third professional examination and the final professional examination shall be ordinarily held and completed by the end of month of October or November every year after completion of one year and six months of final professional session.				
1	Shalya Tantra	200	150	350
2	Shalakya Tantra	200	150	350
3	Kayachikitsa	300	200	500
4	Panchakarma	100	200	300
5	Research Methodology and Medical Statistics	50	--	50

4.6 Attendance

Every candidate shall have attendance of not less than 75% of the total classes conducted in theory and practical / clinics 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.

The Principal should notify at the college, the attendance details of all the students at the end of each term without fail under intimation to the university.

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

4.7 University Examination:

a. Schedule of Examination

University examinations will be carried out after every 6 months. For fresh batch students schedule of examinations will be as follows..

I BAMS - 12 month (ONE year) of admission.

II BAMS - 24th month of admission to I BAMS

III BAMS - 36th month of admission to I BAMS

IV BAMS - 54th month of admission to I BAMS

All examinations shall be held as per notification issued in the calendar of events by the university from time to time.

b. Particulars of subjects for University examinations and distribution of marks

Sr. No.	Name of the Subject	Number of theory papers	Details of maximum Marks		
			Theory	Practical / Viva voce	Total
I BAMS Examination					
1	Padarth Vigyan evam Ayurved Itihas	Two	200	50	250
2	Sanskrit	One	100	50	150
3	Kriya Sharir (Physiology);	Two	200	100	300
4	Rachana Sharir (Anatomy)	Two	200	100	300

Sr. No.	Name of the Subject	Number of theory papers	Details of maximum Marks		
			Theory	Practical / Viva voce	Total
5	Maulik Siddhant evam Ashtanga Hridaya (Sutra Sthan)	One	100	50	150
II BAMS Examination					
1	Dravyaguna Vigyan	Two	200	200	400
2	Roga Nidan evam Vikriti Vigyan	Two (1Pathology & 1 Ayurved)	200	100	300
3	Rasashastra evam Bhaishjya Kalpana	Two	200	200	400
4	Charak Samhita (Purvardh)	One	100	50	150
III BAMS Examination					
1	Agad Tantra, Vyavhar Ayurved evam Vidhi Vaidyak	One	100	50	150
2	Swasthavritta and Yoga	Two	200	100	300
3	Prasuti evam Striroga	Two	200	100	300
4	Kaumarbhritya Tantra	One	100	50	150
5	Charak Samhita (Uttarardh)	One	100	50	150
IV BAMS examination					
1	Kayachikitsa	Two	200	100	300
2	Panchakarma	One	100	50	150
3	Shalya Tantra	Two	200	100	300
4	Shalakya Tantra	Two	200	100	300
5	Research Methodology and Medical Statistics	One	50	--	50

c. Criteria for passing

Min 50 % score in Theory and practical examinations separately.

d. Pattern for Theory Examinations (common to all subjects except Research Methodology):-

Sr. No.	Question Type	Options	Marks for each Question	Total Marks
SECTION A				
Q.1	Multiple Choice Questions	20 out of 20	0.5	10
SECTION B				
Q.2	Short Answer Questions	5 out of 6	3	15
Q.3	Short Answer Questions	5 out of 6	5	25
Q.4	Long Answer Questions	3 out of 4	10	30
Total Marks				80

e. Pattern for theory examination of Research Methodology:-

SN	Question Type	Options	Marks for each Question	Total Marks
SECTION A – Research Methodology				
Q.1	Short Answer Questions	3 out of 4	4	12
Q.2	Long Answer Questions	1 out of 2	8	08
SECTION B – Biostatistics				
Q.1	Short Answer Questions	3 out of 4	4	12
Q.2	Long Answer Questions	1 out of 2	8	08
Total Marks				40

f. Pattern for Practical Examination / Viva voce :-

Practical examination/Viva Voce pattern for each subject will be different & shall be mentioned in the syllabus of particular subject.

g. Eligibility for University Examination

I BAMS - A student shall be eligible to appear for I BAMS examination provided he/she has pursued the course satisfactorily and has requisite attendance as per regulation.

II BAMS - The candidate shall be eligible to appear in II BAMS examination only if he/she has passed the First BAMS examination in all the subjects at least one term (06 months) before he/ she is allowed to appear in Second BAMS examination and has requisite attendance as per regulation.

III BAMS - The candidate shall be eligible to appear in III BAMS examination only if he/she has passed the Second BAMS examination in all the subjects at least one term (06 months) before he/ she is allowed to appear in Third BAMS examination and has requisite attendance as per regulation.

IV BAMS - The candidate shall be eligible to appear in IV BAMS examination only if he/she has passed the Third BAMS examination in all the subjects at least one term (06 months) before he/ she is allowed to appear in Fourth BAMS examination and has requisite attendance as per regulation.

Note:- to consider as pass in third BAMS examination, a candidate shall have to pass in all the subjects prescribed for the university examination. In case a candidate has failed in one or more subjects in third BAMS examination, he/she shall have to pass in the failed subject(s) at least one term (6 months) before he/she is allowed to appear in the IV BAMS examination.

NOTE: *A student must secure at least 50% of total marks fixed for internal assessment in a particular subject in order to be eligible to appear in University Examination in that subject.*

h. Criteria for pass in a subject

A candidate to be declared as pass in any subject, shall secure separately, in Theory/in Practical's/Clinical including Viva-voce examination and in internal assessment examinations, not less than 50% of maximum marks prescribed for the University examination.

A candidate who has passed in a subject or subjects need not appear in that subject(s) in the subsequent examination if he/she has failed in other subject or subjects.

i. Criteria for pass in I year, II year, III year and IV year BAMS examination

To consider as pass in BAMS examination, a candidate has to pass in all the prescribed subjects of the University examination for the concerned year.

j. ATKT criterion for UG

- 1) The failed student of first Professional shall be allowed to appear in second professional examination, but the student shall not be allowed to appear in third professional examination unless the student passes all the subjects of first professional examination and maximum four chances shall be given to pass first professional examination within a period of maximum three years.
- 2) The failed student of second Professional who have passed all the subjects of first professional examination shall be allowed to appear in third professional examination, but the student shall not be allowed to appear in final professional examination unless the student passes all the subjects of second professional examination and maximum four chances shall be given to pass second professional examination within a period of maximum three years.
- 3) The failed student of third Professional who have passed all the subjects of first and second professional examinations shall be allowed to appear in final professional examination and maximum four chances shall be given to pass third professional examination within a period of maximum three years.

a. Results

The examination body shall ensure that the results of the examination are published at the maximum within one month of the last date of examination so that students can complete the course in 5 ½ yrs after admission.

k. Grace marks criterion for UG

Grace marks up to maximum of 5 (five) marks will be awarded to students who have failed only in one subject but passed in all others subjects.

l. Examiners –

(i) No person other than the holder of qualification prescribed for the teaching staff in the Central Council of Indian Medicine (Minimum Standards of Education) Regulations, 2016 (as amended from to time) shall be appointed as an Internal or External examiner or paper-setter or moderator for the B.A.M.S. Degree Course:

Provided that:-

- (a) No person other than regular or retired teacher or researcher with minimum three years teaching or research experience in the concerned subject shall be considered eligible for examinership.

- (b) Internal examiners shall be appointed from amongst the teaching staff of the College of Ayurveda to which the candidate or student belongs.
- (ii) The criteria for appointing the Chairman or paper-setter or moderator shall be as follows :-
- (1) **Chairperson:** Senior most person from amongst the examiners or paper-setters appointed for theory and oral or practical or clinical examinations shall be appointed as Chairman.
 - (2) **Moderator:** A Professor or Associate Professor or Reader shall be eligible to be appointed as moderator.
Provided that an Assistant Professor or Lecturer with five years experience as an Examiner Shall be eligible to be appointed as moderator.
 - (3) **Paper- setter :** A Professor or Associate Professor or Reader shall be appointed as a paper-setter:
Provided that an Assistant Professor or Lecturer with three years experience as an examiner shall be eligible to be appointed as Paper-setter.

4.8 CONTINUOUS INTERNAL ASSESSMENT

The university has introduced a system of continuous internal assessment for assessing student performance throughout the course of studies. There shall be periodical tests (theory & practical) and Terminal (theory & practical) examinations in each academic year. Internal assessment will be carried at the end of every 6 months.

a. INTERNAL ASSESSMENT PROGRAMME :-

1st Term end :- One Theory paper

2nd Term end :- One Theory Paper & Practical Examination / Viva voce

b. Internal Assessment Marks calculation :-

Theory = 1st term end theory marks (A) + 2nd term end theory marks (B) And

[Calculation of the total (A+B) out of maximum Theory internal assessment marks allotted to that specific subject.]

Practical = 2nd Term end Practical marks (C) And

[Calculation of the total (C) out of maximum Practical internal assessment marks allotted to that specific subject.]

- ❖ No practical examination for Research Methodology will be there.

A student must secure at least 50% of total marks fixed for internal assessment in a particular subject in order to be eligible to appear in University Examination in that subject

c. The distribution of marks for I BAMS is as follows:

Sr. No.	Subject	Internal Assessment (Theory) Max. Marks	Internal Assessment (Viva Voce / Practical) Max. Marks	Internal Assessment (Theory + Viva Voce / Practical) Qualifying Marks
1	Padarth Vigyan evam Ayurved Itihas	40	10	20+5=25
2	Sanskrit	20	10	10+5=15
3	Kriya Sharir (Physiology)	40	20	20+10= 30
4	Rachana Sharir (Anatomy)	40	20	20+10= 30
5	Maulik Siddhant evam Ashtanga Hridaya (Sutra Sthan)	20	10	10+5=15

d. The distribution of marks for II BAMS is as follows:

Sr. No.	Subject	Internal Assessment (Theory) Max. Marks	Internal Assessment (Viva Voce / Practical) Max. Marks	Internal Assessment (Theory + Viva Voce / Practical) Qualifying Marks
1	Dravyaguna Vigyan	40	40	20+20=40
2	Roga Nidan evam Vikriti Vigyan	40	20	20+10= 30
3	Rasashastra evam Bhaishjya Kalpana	40	40	20+20=40
4	Charak Samhita (Purvardh)	20	10	10+5= 15

The distribution of marks for III BAMS is as follows:

Sr. No.	Subject	Internal Assessment (Theory) Max. Marks	Internal Assessment (Viva Voce / Practical) Max. Marks	Internal Assessment (Theory + Viva Voce / Practical) Qualifying Marks
1	Agad Tantra, Vyavhar Ayurved evam Vidhi Vaidyak	20	10	10+5= 15
2	Swasthavritta and Yoga	40	20	20+10= 30
3	Prasuti evam Striroga	40	20	20+10= 30
4	Kaumarbhritya Tantra	20	10	10+5= 15

e. The distribution of marks for IV BAMS is as follows:

Sr. No.	Subject	Internal Assessment (Theory) Max. Marks	Internal Assessment (Viva Voce / Practical) Max. Marks	Internal Assessment (Theory + Viva Voce / Practical) Qualifying Marks
1	Kayachikitsa	40	20	20+10= 30
2	Panchakarma	20	10	10+5= 15
3	Shalya Tantra	40	20	20+10= 30
4	Shalakya Tantra	40	20	20+10= 30
5	Research Methodology and Medical Statistics	10	--	5

5. INTERNSHIP TRAINING

5.1 The duration of Compulsory Rotatory Internship shall be one year and the student shall be eligible to join the compulsory internship programme after passing all the subjects from first to the final professional examination and the internship programme shall be start after the declaration of the result of final professional examination.

5.2 The Internship Programme and time distribution shall be as follows:-

- (a) The interns shall receive an orientation regarding details of internship programme along with the rules and regulations, in an orientation workshop, which shall be organized during the first three days of the beginning of internship programme and a work book shall be given to each intern, in which the intern shall enter date-wise details of activities undertaken by him or her during his or her training.
- (b) Every intern shall provisionally register himself with the concerned State Board or Council and obtain a certificate to this effect before joining the internship program.
- (c) The daily working hours of intern shall be not less than eight hours;
- (d) Normally one-year internship programme shall be divided into clinical training of six months in the Ayurvedic hospital attached to the college and six months in Primary Health Centre or Community Health Centre or Rural Hospital or District Hospital or Civil Hospital or any Government Hospital of modern medicine:

Provided that where there is no provision or permission of the State Government for allowing the graduate of Ayurveda in the hospital or dispensary of Modern Medicine, the one-year Internship shall be completed in the hospital of Ayurvedic college.

5.3 The clinical training of six or twelve months, as case may be, in the Ayurvedic hospital attached to the college or in non-teaching hospitals approved by Central Council of Indian Medicine shall be conducted as follows:-

Sr. No.	Department	Distribution
1	Kayachikitsa	2 months
2	Shalya	1 month
3	Shalakya	1 month
4	Prasuti evam Striroga	1 month
5	Kaumarbhritya Tantra-Kaumarabhritya	15 days
6	Panchakarma	15 days

5.4 Detailed Guidelines for internship programme:

Programme and time distribution will be as follows:

1. In the beginning first three days of orientation Workshop to orient the internees to get acquainted with the details and rules of Internship training programme.
2. Distribution of intern work book to interns.
3. Provisional registration with concerned Board/Council before starting the internship.
4. Daily working hours not less than eight hours.
5. Six (6) months for clinical training & six (6) months for PHS/Rural Dispensary/Hospital/PHS as details below.

Posting in college concerned teaching hospital or any other approved Ayurved hospital for Twelve (12) months as follows:

1. Kayachikitsa : 2 Months
2. Panchakama : 15 Days
3. Shalya : 1 Month
4. Shalakya : 1 Month
5. Prasuti evam Striroga : 1 Month
6. Kaumarbharitya Tantra : 15 Days
7. Rural Internship : 6 Months

(a) Kayachikitsa-

- (i) All routine works such as case taking, investigations, diagnosis and management of common diseases by Ayurvedic Medicine;
- (ii) Routine clinical pathological work such as haemoglobin estimation, complete haemogram, urine analysis, microscopic examination of blood parasites, sputum examination, stool examination, Mutra evam Mala pariksha by Ayurvedic method, interpretation of laboratory data and clinical findings and arriving at a diagnosis;
- (iii) Training in routine ward procedures and supervision of patients in respect of their diet, habits and verification of medicine schedule.

(b) Panchakarma-

- (i) Panchakarma procedures and techniques regarding purva karma, Pradhan karma and pashchat Karma.

(c) Shalya-

Intern shall be practically trained to acquaint with the following activities:-

- (i) Diagnosis and management of common surgical disorders according to Ayurvedic principles;
- (ii) Management of certain surgical emergencies such as fractures and dislocations, acute abdomen;
- (iii) Practical training of aseptic and antiseptics techniques, sterilization;
- (iv) Intern shall be involved in pre-operative and post-operative managements;
- (v) Practical use of anesthetic techniques and use of anesthetic drugs;
- (vi) Radiological procedures, clinical interpretation of X-ray, Intra Venous Pyelogram, Barium meal, Sonography and Electro Cardio Gram;
- (vii) Surgical procedures and routine ward techniques such as-
 - (a) Suturing of fresh injuries;
 - (b) Dressing of wounds, burns, ulcers and similar ailments;
 - (c) Incision of abscesses;
 - (d) Excision of cysts;
 - (e) Venesection; and
 - (f) Application of Ksharasutra in ano rectal diseases;

(d) Shalaky-

Intern shall be practically trained to acquaint with the following activities:-

- (i) Diagnosis and management of common surgical disorders according to Ayurvedic principles;
- (ii) Intern shall be involved in Pre-operative and Post-operative managements;
- (iii) Surgical procedures in Ear, Nose, Throat, Dental problems, Ophthalmic problems;
- (iv) Examinations of Eye, Ear, Nose, Throat and Refractive Error with the supportive Instruments in Out-Patient Department; and
- (v) Procedures like Anjana Karma, Nasya, Raktamokshan, Karnapurana, Shirodhara, Putpak, Kawal, Gandush at Out-Patient Department level;

(e) Prasuti evam Striroga-

Intern shall be practically trained to acquaint with the following activities:-

- (i) Antenatal and post-natal problems and their remedies, antenatal and post-natal care;
- (ii) Management of normal and abnormal labours; and
- (iii) Minor and major obstetric surgical procedures;

(f) Kaumarbhritya Tantra-

Intern shall be practically trained to acquaint with the following activities:-

- (i) Antenatal and post-natal problems and their remedies, antenatal and post-natal care also by Ayurvedic principles and medicine;
- (ii) Antenatal and post-natal emergencies;
- (iii) Care of new born child along with immunization programme; and
- (iv) Important pediatric problems and their Ayurvedic managements.

5.5 Rural Internship –

Six months training of interns shall be carried out with an object to orient and acquaint the intern with the National health Programme and the intern shall undertake such training in one of the following institutes, namely:-

- (a) Primary Health Centre;
- (b) Community Health Centre or District Hospital;
- (c) Any recognized or approved hospital of modern medicine;
- (d) Any recognised or approved Ayurvedic hospital or Dispensary: Provided that all the above institutes mentioned in clauses (a) to (d) shall have to be recognized by the concerned University and concerned Government designated authority for taking such training.

The Internship training in Primary Health Centre or Rural Hospital or District Hospital or Civil Hospital or any Government Hospital of modern medicine or Ayurvedic Hospital or Dispensary-

During the six months internship training in Primary Health Centre or Rural Hospital or Community Health Centre or District Hospital or any recognised or approved hospital of Modern Medicine or Ayurvedic Hospital or Dispensary, the interns shall –

- (i) Get acquainted with routine of the Primary Health Centre and maintenance of their records;
- (ii) Get aquatinted with the diseases more prevalent in rural and remote areas and their management;
- (iii) Involve in teaching of health care methods to rural population and also various immunization programmes;

- (iv) Get acquainted with the routine working of the medical or non-medical staff of Primary Health Centre and be always in contact with the staff in this period;
- (v) Get familiarized with the work of maintaining the relevant register like daily patient register, family planning register, surgical register and take active participation in different Government health schemes or programmes;
- (vi) Participate actively in different National Health Programmes implemented by the State Government; and
- (vii) Participate actively in casualty section of the hospital in identification of casualty and trauma cases and their first aid treatment and also procedure for referring such cases to the identified hospitals.

5.6 Assessment

After completing the assignment in various Sections, the interns have to obtain a completion certificate from the head of the Section in respect of their devoted work in the Section concerned and finally submitted to Principal or Head of the institute so that completion of successful internship can be granted.

5.7 Migration of Internship:

- (1) The Migration of internship shall be with the consent of the both college and University, in case of migration is between the colleges and two different Universities.
- (2) In case migration is only between colleges of the same University, the consent of both the colleges shall be required.
- (3) The migration shall be accepted by the University on the production of the character certificate issued by institute or college and application forwarded by the college and University with a “No Objection Certificate”, as case may be.



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SYLLABUS
for
I - BAMS
(Pre-Clinical Subjects)

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Syllabus of B.A.M.S. (Ayurved) 1st Year

Sr. No.	Subject	Page No
UG		
1	Sanskrit	20
2	Padartha Vigyan avum Ayurved Itihas	23
3	Maulik Siddhant avam Ashtang Hridaya	35
4	Rachana Sharir	38
5	Kriya Sharir	47

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SANSKRIT

TITLE OF THE COURSE : - SANSKRIT

COURSE CODE : AA101

MARKS : Theory- 100

Viva voce - 50

GOAL

- To understand Ayurved concepts with the help of Sanskrit language.

LEARNING OBJECTIVE

- To acquire the complete & appropriate knowledge of Sanskrit language.
- To Acquire knowledge of Samhitas.

LEARNING OUTCOME

To enable a student to read Samhitas proficiently.

- **COGNITIVE DOMAIN**
To increase thinking ability, memory and concentration of a student.
- **PSYCHOMOTOR DOMAIN**
To read and understand Samhitas further more commentaries.
- **AFFECTIVE DOMAIN**
Good understanding of Samhitas leading to good clinical diagnosis and treatment.

COURSE DESCRIPTION

Sr. No	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
1	Laghu siddhanta kaumudi	Sandhya, Karakartha, Sandhi, Samaas, Shabda roop, Dhatu roopa , pratyaya, vachya prayoga	45	30
	Anuvaad Chandrika	Sanskrit paragraph translations (From English, Hindi, Regional Language to Sanskrit or Vice versa) (Identification and correction of grammatical errors in the given sentences).	10	10

Sr. No	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		The Sentences for translation should be selected from the under mentioned reference books- Acharya Varadaraja Brihatrayee – Charak , Sushruta , Ashtanga Hridayam Anuvaad Chandrika – Chkradhara Hansa Nautiyal		
3	Vaidyakeeya Subhashita Sahitya	10 adhyayas (1- 10)	20	30
4	Ayurved Arsha Grantha Adhyayana krama	Ashtanga Ayurveda, Gramyahaar, Janapadodhwans, Daiva-purushakar, vaya, Achar rasayan, Vaatkalaakaleeya, Ahar vidhi vishesha ayatana Chikitsa chatushpada	20	20
5	Panch tantra	Kshapanaka Katha Murkha Pandit Kathaparyantam	5	10

UNIVERSITY EXAMINATION (Practical)

50 marks

Sr. No.	Oral	Shlok recitation	Internal	Total
1	30 Marks	10 Marks	10 Marks	50 Marks

REFERENCE BOOKS:**Sanskrit :**

Sr. No.	Books	Author	Publication, Year Of Publication And Edition
1	Sushruta Samhita	Kaviraj Dr. Ambika Datta Shastri	Chaukhambha Sanskruta Sansthan, Varanasi.
2	Prabhashanam Work Book, Su.sam.chap.4	-	Ayurveda Academy, Banglore
3	Vaidyakeeya Subhashita Sahityam	Dr. Bhaskara Govinda Ghanekar	Chaukhambha Sanskrut Sansthan, Varanasi, 7th ed. 1999
4	Panchatantra (Apareekshitakarakam)	Pt. Vishnu Sharma	Vani Prakashan, Jan. 2011
5	Panchatantram	Vd. Ojada Pol Vd. Shivaji Wavhal	Shantanu Prakashana Edi.-1 st Aug. 2004
6	Sanskrit	Mrs. Swati Dhamdhere Vd. Y.A. Jamdade	Shantanu Prakashana Edi.-1 st 2016

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**PADARTHA
VIGYAN
EVUM
AYURVED ITIHAS**

**TITLE OF THE COURSE – PADARTHA VIGYAN EVUM
AYURVEDA ITIHAS
(Philosophy and History of Ayurveda)
COURSE CODE – AA102
MARKS – THEORY - 200 (PAPER I & II) VIVA – 50**

GOAL :

To propagate & to advocate the fundamental principles and techniques of Ayurveda for healthy & unhealthy conditions of human body.

LEARNING OBJECTIVE

- Thorough Knowledge of Ayurvedic Compendia – Brihatrayi in comparison with Shad Darshana, Tarka Sangraha etc.
- Understanding human body with concepts of panch mahabhootas, soul & mind and its inter-relationship with the universe.
- Knowledge of Pramanas and its applied aspect in clinical practice.

LEARNING OUTCOME

Knowledge of fundamental principles which helps in understanding Ayurvedic science.

- **COGNITIVE DOMAIN**
Knowledge of Padarthas, Darshanas, Pramanas, Dravyas, Panch Mahabhootas etc. to understand Ayurvedic concepts.
- **PSYCHOMOTOR DOMAIN**
Application of Pramanas in examination of patients.
Use of siddhantas in diagnosis and treatment.
- **AFFECTIVE DOMAIN**
To become a Good Ayurvedic Physician and a better researcher.

COURSE DESCRIPTION

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
1	Ayurveda Nirupana	1.1 Lakshana of Ayu, composition of Ayu. 1.2 Lakshana of Ayurveda. 1.3 Lakshana and classification of Siddhanta 1.4 Introduction to basic principles of Ayurveda and their significance.	8	8
2	Ayurveda Darshana Nirupana	2.1 Philosophical background of fundamentals of Ayurveda. 2.2 Etymological derivation of the word "Darshana". Classification and general introduction to schools of Indian Philosophy with an emphasis on: Nyaya, Vaisheshika, Sankhya and Yoga. 2.3 Ayurveda as unique and independent school of thought (philosophical individuality of Ayurveda). 2.4 Padartha: Lakshana, enumeration and classification, Bhava and Abhava padartha, Padartha according to Charaka (Karana-Padartha).	23	25
3	Dravya Vigyaniam	3.1 Dravya: Lakshana, classification and enumeration. 3.2 Panchabhuta: Various theories regarding the creation (theories of Taittiriyaopanishad, Nyaya-Vaisheshika, Sankhya-Yoga, Sankaracharya, Charaka and Susruta),	23	30

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
		<p>Lakshana and qualities of each Bhoota.</p> <p>3.3 Kaala: Etymological derivation, Lakshana and division / units, significance in Ayurveda.</p> <p>3.4 Dik: Lakshana and division, significance in Ayurveda.</p> <p>3.5 Atma:Lakshana, classification, seat, Gunas, Linga according to Charaka, the method / process of knowledge formation (atmanah jnasya pravrittih).</p> <p>3.6 Purusha: as mentioned in Ayurveda-Ativahikapurusha / Sukshmasharira/ Rashipurusha/ Chikitsapurusha/ Karmapurusha/ Shaddhatvatmakapurusha.</p> <p>3.7 Manas: Lakshana, synonyms, qualities, objects, functions, dual nature of mind (ubhayaatmakatvam), as a substratum of diseases, penta-elemental nature (panchabhutatmakatvam).</p> <p>3.8 Role of Panchamahabhuta and Triguna in Dehaprakriti and Manasaprakriti respectively.</p> <p>3.9 Tamas as the tenth Dravya.</p> <p>3.10 Practical study/application in Ayurveda.</p>		

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
4	Guna Vigyanium	4.1 Etymological derivation, classification and enumeration according to Nyaya Vaisheshika and Charaka, Artha, Gurvadiguna, Paradiguna, Adhyatmaguna. 4.2 Lakshana and classification of all the 41 gunas. 4.3 Practical / clinical application in Ayurveda.	18	15
5	Karma Vigyanium	5.1 Lakshana, classification in Nyaya. 5.2 Description according to Ayurveda. 5.3 Practical study/ application in Ayurveda.	3	15
6	Samanya Vigyanium	6.1 Lakshana, classification. 6.2 Practical study/ application with reference to Dravya, Guna and Karma.	2	7
7	Vishesha Vigyanium	7.1 Lakshana, classification. 7.2 Practical study/ application with reference to Dravya, Guna and Karma. 7.3 Significance of the statement "Pravrittirubhayasya tu".	2	8
8	Samavaya Vigyanium	8.1 Lakshana 8.2 Practical study /clinical application in Ayurveda.	2	5
9	Abhava Vigyanium	9.1 Lakshana, classification 9.2 Clinical significances in Ayurveda.	1	3
10	Srushti Nirupana	10.1 Srushti-laya nirupana according to Charak, Sushrut & various darshanik theories	3	15

PAPER II**100 marks**

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
1	Pariksha	1.1. Definition, significance, necessity and use of Pariksha. 1.2. Definition of Prama, Prameya, Pramata, Pramana. 1.3. Significance and importance of Pramana, Enumeration of Pramana according to different schools of philosophy. 1.4. Four types of methods for examination in Ayurveda (Chaturvidha-Parikshavidhi), Pramana in Ayurveda. 1.5. Subsumption of different Pramanas under three Pramanas. 1.6. Practical application of methods of examination (Parikshavidhi) in treatment (Chikitsa).	4	5
2	Aptopdesha Pariksha/ Pramana	2.1. Lakshana of Aptopadesha, Lakshana of Apta. 2.2. Lakshana of Shabda, and its types. 2.3. Shabdavritti-Abhidha, Lakshana, Vyanjana and Tatparyakhya. Shaktigrahahetu. 2.4. Vaakya: Characteristics, Vaakyarthagyanahetu-Aakanksha, Yogyata, Sannidhi	2	10

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
3	Pratyaksha Pariksha/ Pramana	<p>3.1. Lakshana of Pratyaksha, types of Pratyaksha- Nirvikalpaka- Savikalpaka with description, description of Laukika and Alaukika types and their further classification.</p> <p>3.2. Indriya-prapyakaritvam, six types of Sannikarsha.</p> <p>3.3. 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.</p> <p>3.4. Trayodasha Karana, dominance of Antahkaran.</p> <p>3.5. Hindrances in direct perception (pratyaksha-anupalabdihikaaran), enhancement of direct perception (Pratyaksha) by various instruments/ equipments, necessity of other Pramanas in addition to Pratyaksha.</p> <p>3.6. Practical study/ application of Pratyaksha in physiological, diagnostic, therapeutics and research grounds.</p>	10	15

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
4	Anumanapariksha /Pramana	<p>4.1. Lakshana of Anumana. Introduction of Anumiti, Paramarsha, Vyapti, Hetu, Sadhya, Paksha, Drishtanta. Types of Anumana mentioned by Charaka and Nyayadarshana.</p> <p>4.2. Characteristic and types of Vyapti.</p> <p>4.3. Lakshana and types of Hetu, description of Ahetu and Hetwabhasa.</p> <p>4.4. Characteristic and significance of Tarka.</p> <p>4.5. Practical study/ application of Anumanapramana in physiological, diagnostic, therapeutics and research.</p>	12	15
5	Yuktipariksha/ Pramana	<p>5.1. Lakshana and discussion.</p> <p>5.2. Importance in Ayurveda.</p> <p>5.3. Practical study and utility in therapeutics and research</p>	3	15
6	Upamana Pramana	<p>6.1 Lakshana.</p> <p>6.2 Application in therapeutics and research.</p>	2	5
7	Karya- Karana Siddhanta (Cause and Effect Theory)	<p>7.1. Lakshana of Karya and Karana. Types of Karana.</p> <p>7.2. Significance of Karya and Karana in Ayurveda.</p> <p>7.3. Different opinions regarding the manifestation of Karya</p>	10	15

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
		from Karana: Satkaryavada, Asatkaryavada, Parinamavada, Arambhavada, Paramanuvada, Vivartavada, Kshanabhanguvada, Swabhavavada, Pilupaka, Pitharpaka, Anekantavada, Swabhavoparamavada.		
8	Ayurved Itihas- definition &necessity of knowledge of history	1. Etymological derivation (Vyutpatti), syntactical derivation (Niruktti) and definition of the word Itihas, 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	3
9	Introduction to the authors of classical texts during Samhitakaal	1. Introduction to the authors of classical texts during Samhitakaal and their contribution: Atreya, Dhanwantari, Kashyapa, Agnivesha, Sushruta, Bhela, Harita, Charaka, Dridhabala, Vagbhata, Nagarjuna, Jivaka.	6	5
10	Introduction to the commentators of classical Samhitas	1. Introduction to the commentators of classical Samhitas – Bhattaraharicchandra, Jejjata, Chakrapani, Dalhana, Nishchalakara,	2	5

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
		Vijayarakshita, Gayadas, Arunadutta, Hemadri, Gangadhara, Yogindranath Sen, Haranachandra, Indu.		
11	Introduction to the authors of compendia	1. Introduction to the authors of compendiums (Granthasamgrahakaala) – Bhavmishra, Sharngadhara, Vrinda, Madhavakara, Shodhala, Govinda Das (Author of Bhaishajyaratnawali), Basavraja	1	3
12	Introduction to the authors of Modern era	1. 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.	1	3
13	Globalization of Ayurveda	Globalization of Ayurveda – Expansion of Ayurveda in Misra (Egypt), Sri Lanka, Nepal & other nations.	1	15
14	Developmental activities in Ayurveda	a) Developmental activities in Ayurveda in the post-independence period, development in educational trends b) Establishment of different committees, their recommendations.	2	5
15	Introduction and activities of Organizations	c) Introduction to and activities of the following Organizations :- Department of AYUSH, Central Council	1	5

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
		of Indian Medicine, Central Council for Research in Ayurvedic Sciences, Ayurvedic Pharmacopeia commission, National Medicinal Plants Board, Traditional Knowledge Digital Library (TKDL)		
16	National Institutions	d) Introduction to the following National Institutions: 1) National Institute of Ayurved, Jaipur. 2) IPGT&RA, Gujrat Ayurved University, Jamnagar. 3) Faculty of Ayurved, BHU, Varanasi. 4) Rashtriya Ayurveda Vidyapeetha, New Delhi. 5) AIIA, New Delhi.	1	5
17	Ayurved Itihas	e) Drug and Cosmetic Act.	1	5
18	Journals of Ayurveda.	Introduction to national & international popular journals of Ayurveda.	1	5
19	WHO	Introduction to activities of WHO in the promotion of Ayurved.	1	15

Reference Books:-

Padartha Vigyana:

Sr. No.	Book name	Author	Publication & Edition
1	Padartha Vigyana	Acharya Ramraksha Pathak	Baidyanath Ayurved bhavan ltd. Nagpur 1984 June , 7th ed
2	Ayurvediya Padartha Vigyana	Vaidya Ranjit Rai Desai	Baidyanath ayurved bhavan ltd. Nagpur 1984 , 4th ed.
3	Ayurved Darshana	Acharya Rajkumar Jain	Praanavayu (Jainayurved) shodh sansthan , 3rd ed. , 1997.
4	Padartha Vigyana	Kashikar	1953.
6	Sankhyatantwa Kaumadi	Gajanan Shastri	Chukhamabha Sanskrit, Varanasi 6 th ed. , 1997.
7	Psycho Pathology in Indian Medicine	Dr. S.P. Gupta	Chaukhambha Sanakrut Pratisthan Delhi , jan 2000.
8	Charak Evum Sushrut ke Darshanik Vishay ka Adhyayan	Prof. Jyotirmitra Acharya	
9	Ayurvediya Padartha Vidnyana	Dr. Ayodhya Prasad Achal	Chaukhambha Surbharti Prakashan , 2 nd ed. 1998.
10	Padartha Vigyana	Dr. Vidyadhar Shukla	
11	Padartha Vigyana	Dr. Ravidutta Tripathi	Chaukhambha sanskrit prakashan ,Delhi 6 th ed. 1999.
12	Ayurvediya Padartha Darshan	Pandit Shivhare	Chaukhambha Surbharti Varanasi , Reprint 2006.
13	Scientific Exposition of Ayurveda	Dr. Sudhir Kumar	2005
14	Ayurvediya padartha vidnyana Va Ayurvedacha Itihas	Dr. Patil B.D	Chaukhambha Sanskrit Pratisthan , Reprint 2016.
15	Padartha Vigyana Va Ayurvediya Itihas	Vd. Prama Joshi	Proficient Publishing house , jan 2015.
16	Ayurvediya padartha Vigyana Va Ayurveda Itihas	Vd. Dilip Gadgil	Mankarnika publication 2015

History of Ayurveda

Sr. No.	Book name	Author	Publication & Edition
1	Upodghata of Kashyapasamhita	Rajguru Hem Raj Sharma	Chaukhmabha Sanskrut series, Banaras 1952.
2	Upodghata of Rasa Yogasagar	Vaidy Hariprapanna Sharma	Latest Edition
3	Ayurveda Sutra	Rajvaidya Ram Prasad Sharma	Latest Edition
4	History of Indian Medicine (1-3 part)	Dr. GirindrNath Mukhopadhyaya	Latest Edition
5	A Short history of Aryan Medical Science	Bhagwat Singh	Isha Books , Reprint Pub 1896.
6	History of Indian Medicine J. Jolly	J. Jolly	Munshi ram Manohar lal publisher , New Delhi
7	Hindu Medicine	Zimer	1979
8	Indian Medicine in the classical age	AcharyaPriyavrata Sharma	2000
9	Ayurved ka bruhat Itihas	Atridev vidyalankar	U.P. hindi sansthana ,Lucknow. 2 nd edition -1991
10	Ayurveda ka vaidnyanika Itihas	Priyavrata Sharma	Chaukhmabha orientalia , Banaras 2 nd edition 1981.

UNIVERSITY EXAMINATION (*Practical*)

50 Marks

Sr. No.	Oral	Shlok recitation	Internal	Total
1	30 Marks	10 Marks	10 Marks	50 Marks

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**MAULIK
SIDDHANT
EVAM
ASHTANG HRIDAYA**

TITLE OF THE COURSE :

MAULIK SIDDHANT EVUM ASHTANG HRIDAYA

(BASIC PRINCIPLES AND ASHTANG HRIDAY- AN ANCIENT TEXT OF AYURVEDA)

COURSE CODE:- AA103

MARKS: Theory -100

Practical - 50

GOAL

- To explore the profound knowledge & basic principles from Ayurvedic Samhitas.
- To propagate & to advocate the fundamental principles and techniques of Ayurveda for healthy & unhealthy conditions of human body.

LEARNING OBJECTIVE

- Health and lifestyle management through Dinacharya, Rutucharya, Sadvrutta etc.
- Demonstration of practical & clinical utility of Ayurvedic fundamentals with the help of complete and thorough knowledge.

- **LEARNING OUTCOME**

Elementary knowledge of basic concepts of Ayurvedic science.

- **COGNITIVE DOMAIN**

Thorough Knowledge of Ayurvedic concepts like Prakruti, Saar, dosha-dhatu-mala etc mentioned in Ashtang Hridaya.

- **PSYCHOMOTOR DOMAIN**

1. Assessment of prakruti, sarata & bala in healthy individuals.
2. Panchakarma procedures in healthy and diseased conditions.

- **AFFECTIVE DOMAIN**

To enable a student to practice pure Ayurvedic treatment.

COURSE DESCRIPTION

Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
1	Ashtang Hridaya Sutrasthana 1 st term	Ashtang Hridaya Sutrasthana Adhyaya-1,2,3,4,8,9,10,11,12,13,14	40	30
		Ashtang Hridaya Sutrasthana Adhyaya-5, 6,7,15	15	10
2	Sutrasthana 2 nd term	Ashtang Hridaya Sutrasthana Adhyaya-16, 17, 18, 19, 20	20	15
		Ashtang Hridaya Sutrasthana Adhyaya- 21, 22, 23,24,27,30	15	10
		Ashtang Hridaya Sutrasthana Adhyaya-25, 26, 28 29	10	5
3.	Maulika Siddhanta	Panchamahabhuta siddhanta, Tridosha siddhanta and their practical application 1. Description of Ashta Prakriti 2. Shastra Lakshan (Tantra), Tantraguna, Tantradosha, Tachitalya, Arthasraya, Kalpana	20	10

UNIVERSITY EXAMINATION (*Practical*) 50 Marks

Sr. No.	Oral	Spotting	Project	Samhita based Case taking	Internal Assessment	Total
1	15 Marks	10 Marks	10 Marks	05 Marks	10 Marks	50 Marks

Reference Books :-

Sr. No.	Books	Author	Publication, Year of Publication and Edition
1	Ashtang Hridaya : Hindi commentary	Lalchanda Vaidya	Motilal Banarasi Das Pub. 1999 Varanasi.
2	Ashtang Hridaya : Hindi commentary	Vd. B.L. Gaur	Chaukhambha Orientalia
3	Ashtang Hridaya : English commentary	Dr. T. Sreekumar	Lateset Edition
4	Ashtang Hridaya : English commentary	Dr. Vishwvasu Gaur	Lateset Edition
5	Ashtang Hridaya : Sanskrit commentary	Hemadri	Moreshwar Kunte / Navre Chukhambha Orientalia , Varanasi , Reprint 10th ed. 2014.
6	Ashtang Hridaya : Sanskrit commentary	Arunadatta	Moreshwar Kunte / Navre Chukhambha Orientalia , Varanasi , Reprint 10th ed. 2014.
7	Ashtang Hridaya: Sutrasthana: Marathi commentary	Vd. Dilip Gadgil	Mankarnika pub. 3rd ed. 19 jan. 2016.
8	Maulika Siddhanta evum Ashtang Hridaya: Sutrasthana: Marathi translation	Vd. Gayatri Deshpande	Shree Ram Prakashan Phaltan 1 st Print - 2013

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RACHANA
SHARIR

TITLE OF THE COURSE :- RACHANA SHARIR
COURSE CODE :- AA104
MARKS :- 300 (Theory Paper I & II - 200, Practical-100)

GOAL

To Impart practical and clinical knowledge of Rachana Sharir and Anatomy to the students for strengthening their foundation of basic principles for further clinical practice.

LEARNING OBJECTIVE

- To study the basic principles of Human Anatomy & Rachana Sharir for comprehensive knowledge of the subject
- Hands on practical on cadaveric dissection, bones, specimens, models etc.
- Integration of Modern Human Anatomy & Ayurved Rachana Sharir & its clinical application
-

LEARNING OUTCOME

Learning outcome will be assessed as follows

• **COGNITIVE DOMAIN**

At the end of the course students should be able to Retain & recollect the knowledge of Modern Human Anatomy & Rachana Sharir

• **PSYCHOMOTOR DOMAIN**

At the end of the course students should be able to

- 1) To identify, differentiate, dissect various structures in the human body practically
- 2) To identify & demarcate various structures externally on human body as well as in radio imaging.

• **AFFECTIVE DOMAIN**

At the end of the course students should be able to apply the knowledge of Rachana Sharir & Human Anatomy for further studies & clinical practice.

COURSE DESCRIPTION**Paper I**

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
1	Ayurved Paribhasha & Anatomical terminologies	Kurcha, Kandara, Jala, Seemanth, Seevani, Rajju, Snayu, Lasika, Asthisanghat etc. Anatomical positions, Planes, anatomical terms related to skin, fascia, bones, joints, & their movements, muscles, ligaments, tendons, blood vessels, nerves etc. Definition and branches of Anatomy, Preservation methods of the cadaver.	3	20
2	Shariropakramaniya Shaarir	Definitions of Sharir & Shaarir, Shadangtvam (six regions of the body), Anga Pratyang Vibhag (subdivision of body), Mrit sharir samshodhan, sharir gyan prayojan, Constitution of Purush, Panchbhautiktvam, tridosh-trigunatmakam, Karma Purush, Dosh-dhatu-mala moolkatvam.	4	20
3	Pramana Sharir	Anguli Praman, Anjali Pariman	2	15
4	Asthi Sharir & Osteology	Asthi Vyakhya, number, types, asthi swaroop, vasa, meda, majja. Bone:- Definition, ossification, structure and types, description of the bones with clinical anatomy	20	25

5	Garbha Sharir & Embryology	<p>Garbha Definitions, Shukra- Artava- Garbhadhan, Role of tridosha & panchmahabhuta in fetal development, Beej- beebhag- beebhagavayava, Linga vinischay, Masanumasik garbha vrudhi krama, garbhotpadakbhava, garbhavrudhikar bhava, garbh poshana, apara nirmiti, nabhinadi nirman, anga pratyanga utpatti.</p> <p>Embryology:- Definition & branches of embryology, embryo & fetus, Sperm & ovum, fertilization, cleavage, germ layers formations & their derivatives, law of heredity, sex determination & differentiation, month wise development of fetus, placenta formation, umbilical cord formation, twinning.</p>	20	25
6	Sandhi Sharir & Arthrology	<p>Sandhi Vyakhya, number, types of asthi sandhi. Joints:- Definition, structure type & movements, description of joints of extremities-vertebral joints and temporomandibular joint with their clinical anatomy.</p>	20	20

7	Sira Dhamani Strotas Ayurved & Modern Aspects	Definition, types and number of sira and dhamani, Description of Hridaya, Stroto sharir- definition, types & strotas and strotomool.	10	25
8	Peshi Sharir & Myology	Peshi vyakhya-structure-type-number-importance, description of peshi. Myology:- structure & types of muscles, description of muscles-origin, insertion, action, nerve supply, clinical anatomy.	4	15
9	Kala Sharir- Ayurved & Modern	Definition and types.	2	10
10	Koshtha & Aashay Sharir	Definition and number of koshtha, types and description of ashaya.	2	10
11	Uttamangiya Sharir	Shatachakra, Ida, Pingala and sukshma nadi- brief description.	1	10
12	Indriya Sharir	Definition of Indriya, Indriya artha & adhisthan, their number & importance. Description of Gyanendriya, Karmendriya and Ubhayendriya (manas).	3	10
13	Marma Sharir	Definition, number, location, classification, clinical importance with viddha lakshana, Explanation of Trimarma, Detail description of marmas.	8	20

14	Cardiovascular System	Definition, types and structure of arteries & veins, Description of heart and blood vessels with their course and branches, Pericardium with applied aspect.	8	20
15	Lymphatic System	Definition, types and structure of lymph vessels, lymph glands with their clinical aspects.	2	10

Paper II

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
1	Respiratory System	Respiratory tract:- nasal cavity, pharynx, larynx, trachea, bronchial tree. Bronchial tree and lungs with their clinical aspects. Pleura with its clinical aspects. Diaphragm	8	20
2	Digestive System	Organs of digestive tract with their clinical aspects. Digestive glands:- liver, spleen, pancreas. Description of peritoneum with its clinical aspects.	18	25
3	Urinary System	Urinary tract:- kidney, ureter, urinary bladder and urethra with their clinical aspects.	7	20
4	Reproductive System	Reproductive organs, tract and glands with their clinical aspects of Male & Female reproductive system.	9	20

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weightage (Marks)
5	Endocrinology	Definition, classification & description of endocrine glands (pituitary, thyroid, parathyroid, thymus and supra renal gland) with their clinical aspects.	4	20
6	Nervous system	Definition, classification & importance of nervous system. Description & covering of Brain & spinal cord. Description of Peripheral nervous system:- cranial and spinal nerves, nerve plexuses, autonomic nervous system, formation and circulation of cerebrospinal fluid, blood supply of brain and spinal cord.	13	25
7	Sensory Organs	Description of structure of Eyeball, Ear, Nose, Tongue and skin with their clinical aspects.	9	25
8	Surface & Radiological Anatomy	Study of radio imaging of limbs, abdomen, pelvis and vertebral column with their clinical application. Surface anatomy of thoracic and abdominal viscera.	3	10

PRACTICAL IN RACHANA SHARIR
LIST OF PRACTICALS

Sr. No.	Topics	Details of practical	Teaching (Hrs)	Weightage (Marks)
1	Upper & Lower Limb Dissection	Skin-adipose tissue removal, region wise identification of muscles-veins-arteries-nerves-lymph nodes –joints and their details, axilla with brachial plexus	90	20
2	Dissection of Back	Skin-adipose tissue removal, region wise identification of muscles-veins-arteries-nerves-lymph nodes –joints and their details	15	5
3	Thorax Dissection	Identification of lungs, pleura, mediastinal contents, Heart with coronary arteries, ascending aorta, arch of aorta their course and branches, Vagus nerve, phrenic nerve, sympathetic chain, intercostals muscle, Descending thoracic aorta and branches.	10	15
4	Abdomen Dissection	Anterior abdominal wall muscles, Identification of intra abdominal organs, their positions and visceral relations, Diaphragm muscle, Peritoneum and its reflections, Mesentery , Small & Large intestine, Descending abdominal aorta with its branches and their course, Nerve plexuses, Blood and nerve supply of abdominal viscera	25	20

Sr. No.	Topics	Details of practical	Teaching (Hrs)	Weightage (Marks)
5	Head, Neck, Brain Dissection	Identification of muscles of neck & face with their details, arteries-veins-nerves of this region and their course, identification of brain structures, Study of cranial vault and cranial cavity.	25	15
6	Practical study of bones	Practical demonstration of bones with the details	10	15
7	Practical Study of Organs	Practical demonstration of each soft organ with their details.	10	15
8	Practical Study of Surface Anatomy	Practical demonstration of surface anatomy on Mummified cadaver.	10	5
9	Practical Study of Radiological Anatomy	Practical demonstration on X rays, MRI etc.	5	5
10	Practical study of Location of Marma	Practical demonstration of their locations and structures on cadaver	5	5
11	Radio imaging Technique	Description with details of radio imaging technique.	5	5

UNIVERSITY EXAMINATION (Practical)

Spot examination	Dissected organs & Histology Slides	Bones, Joints, Marma Sharir	Surface & radiological anatomy	Practical record	Viva-voice	Internal Assessment Marks	Total
20 marks	10 marks	15 marks	10 marks	5 marks	20 marks	20 marks	100 marks

REFERENCE BOOKS:

Sr. No.	Name of Book	Name of Author	Edition
1	Brihat Shariram	P. S. Varrier	13th edition, Chaukhamba Publication
2	Abhinav Shariram	Acharya Damodar Sharma Gaur	Latest edition
3	Manav Sharir (Revised Edition)	Prof. Dinkar Govind Thatte	2 nd edition Chaukhamba publication
4	Manav Bhrun Vigyana	Prof. Dinkar Govind Thatte	Latest edition
5	Manav Anga Rekhankan Vikiran	Prof. Dinkar Govind Thatte	Latest edition
6	Drushtartha Shariram Vol I & II	Vaidya P.G. Athavale	Reprint 2005, Godavari Publishers
7	Ayurvedic Human Anatomy	Prof. Dr. Giridhar M. Kanthi	Chaukhamba Orientalia (2013)
8	Rachana Sharir Vigyana	Dr. Mahendra Singh	Latest edition
9	Regional Anatomy Vol- I, II, III, IV	DR. B. D. Chaurasia	7 th edition 2017, CBS publication
10	Sushrut Samhita Sharirsthan Ghanekar Tika	DR. Dr. Bhaskar Govind Ghanekar	Reprint 2004, Meharchand Lachhmandas publications, Delhi
11	Human Embryology	Inderbir Singh	Jaypee Brothers Medical Publishers 11 th Revised edition (2017)
12	Sharir Rachana Vigyan part I & II	Dr. Shivaji Wavhal	15 th edition, reprint October 2015, Shantanu Publication
13	Surface & Radiological Anatomy	A.Halim	3 rd edition, 2011, CBS publication
14	Cunningham's Manual of Practical Anatomy	G. J. Romanes	15 th edition, 2016, oxford
15	Grants Dissector	Alan J. Detton	16/E edition (2017), WOLTERS KLUWER
16	Principles of Anatomy & Physiology	Gerard Tortota	15 th edition, John Wiley & sons publication
17	Human Anatomy Vol-I, II, III, IV	A. K. Datta	9 th edition, CBI publication

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DPU

Dr. D. Y. PATIL VIDYAPEETH, PUNE
(Deemed to be University)

KRIYA
SHARIR

TITLE OF THE COURSE :- KRIYA-SHARIR

COURSE CODE :- AA105

MARKS :- Theory (Paper I & II) - 200, Practical-100 Total 300 Marks

GOAL

The broad goal of the teaching of undergraduate students in **Kriya-Sharir** aims at providing the student comprehensive knowledge of the normal functions of the organ systems of the body to facilitate an understanding of the physiological basis of health and diseases in ayurvedic as well as modern perspective.

LEARNING OBJECTIVE

At the end of the course the U.G student should acquire thorough knowledge of Basic Principles of Kriya Sharir and describe the normal functions of all the organ systems, their regulatory mechanisms and interactions of the various systems for well-coordinated total body functions.

LEARNING OUTCOME

COGNITIVE DOMAIN

- 1) At the end of the course the U.G student should acquire thorough knowledge of Basic Principles of Kriya Sharir as well as Modern Physiological Principles in pursuit of highest educational standards to enhance cognitive domain.
- 2) The student will be able to: describe the normal functions of all the organ systems, their regulatory mechanisms and interactions of the various systems for well-coordinated total body function.
- 3) Explain the physiological aspects of normal growth and development and analyze the physiological responses and adaptation to environmental stresses according to modern and ayurved perspective.
- 4) Comprehend the physiological principles underlying pathogenesis and treatment of disease according to modern and ayurved perspective.

- **PSYCHOMOTOR DOMAIN**

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

- 1) Conduct experiments designed for study of physiological phenomena.
- 2) Interpret experimental/investigative data.
- 3) Distinguish between normal & abnormal data derived as a result of tests which he/she has performed and observed in the laboratory.

- **AFFECTIVE DOMAIN**

1. Maintain a safe workspace, adhere to all safety regulations and display responsible conduct in classrooms and laboratory
2. Develop and maintain good working relationships with all teachers, students and staff
3. Accurately and professionally communicate results with others verbally and in writing

COURSE DESCRIPTION

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
PAPER- I -PART A				
1	Conceptual study of fundamental principles of Ayurvediya Kriya Sharir	Panchamahabhuta, Tridosha, Triguna, Loka-Purusha Samya, Samanya -Vishesha. Description of basics of Srotas	4	5
2	General description of sharir	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	2	5

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
3	Dosha- General description	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. Prakriti and Vaikrita Dosha	2	5
4	Vata Dosha	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	5	25
5	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	4	25
6	Kapha Dosha	Vyutpatti, Nirukti of the term Kapha, general locations, general properties and general functions of Kapha,	4	25

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
		five types of Kapha (Bodhaka, Avalambaka, Kledaka, Tarpaka, Śleshaka) with their specific locations, specific properties, and specific functions		
7	Prakriti:	a) 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. b) Manasa- Prakriti: Introduction and types of Manasa- Prakriti	8	25
8	Ahara:	Definition, classification and significance of Ahara, Ahara-vidhi-vidhana, Ashta Aharavidhi Viseshayatana, Ahara Parinamkar Bhava.	5	20
9	Aharapaka (Process of digestion):	Description of Annavaaha Srotas and their Mula. Role of Grahani & Pittadhara Kala.	1	10
10	Avasthapaka and Koshtha	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.	5	20

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
11	Agni	Agni – Definition and importance, synonyms, classification, location, properties and functions of Agni and functions of Jatharagni, Bhutagni, and Dhatvagni.	2	20
12	Dosha Vriddhi, Dosha Kshaya	Etiological factors responsible for Dosha Vriddhi, Dosha Kshaya and their manifestations	1	8
13	Kriyakala	Concept of Sanchay, prakop, prasar, sthansanshray, vyakti, bhed	2	15
PAPER- I PART B				
a	Homeostasis and Cell physiology	Definition and mechanisms of maintenance of homeostasis. Cell physiology. Membrane physiology. Transportation of various substances across cell membrane	3	5
b	Cell physiology	Resting membrane potential and action potential	1	5
c	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	9	25
d	Nervous System	General introduction to nervous system, neurons, mechanism of propagation of nerve impulse, physiology of	12	25

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
		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		
e	Gastro-intestinal tract	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	8	25
f	Acid-base balance and Proximate principles of food	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.	7	25
g	Lymphatic system	Structure -Lymphoid tissue Thymus, Spleen, Lymph nodes , Other lymphoid tissue, Lymphatic vessels, Function, applied physiology	5	5

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
PAPER-II PART A				
1	Dhatu	Etymology, derivation, definition, general introduction of term Dhatu, different theories related to Dhatuposhana (Dhatuposhana Nyaya)	4	10
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	20
3	Rakta Dhatu	Etymology, derivation, synonyms, location, properties, functions and Praman of RaktaDhatu. 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	3	20

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
		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.	2	20
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.	2	20
6	Asthi Dhatu:	Etymology, derivation, synonyms, location, properties, functions of Asthi Dhatu. Number ofAsthi. Physiology of Asthivaha Srotas and formation of Asthi Dhatu, characteristics ofAsthisara Purusha, mutual interdependence of Vata and Asthi Dhatu, manifestations ofKshaya and Vriddhi of Asthi Dhatu.	2	20

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
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.	2	20
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.	3	20
9	Concept of Ashraya-Ashrayi bhava	inter-relationship among Dosha, Dhatu Mala and Srotas.	1	5
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	3	20

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
11	Upadhatu	<p>General introduction, etymological derivation and definition of the term Upadhatu. Formation, nourishment, properties, location and functions of each Upadhatu.</p> <p>a) Stanya: Characteristic features and methods of assessing Shuddha and Dushita Stanya, manifestations of Vriddhi and Kshaya of Stanya.</p> <p>b) Artava: Characteristic features of Shuddha and Dushita Artava. Differences between Raja and Artava, physiology of Artavavaha Srotas.</p> <p>c) Tvak: classification, thickness of each layer and functions.</p>	4	15
12	Mala:	<p>Etymological derivation and definition of the term Mala.</p> <p>Aharamala: Enumeration and description of the process of formation of Aharamala.</p> <p>a) Purisha: Etymological derivation, definition, formation, properties, quantity and functions of Purisha. Physiology of Purishavaha Srotas, manifestations of Vriddhi and Kshaya of Purisha.</p> <p>b) Mutra: Etymological derivation, definition, formation, properties, quantity and functions of Mutra. Physiology of</p>	4	15

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
		Mutravaha Srotas, physiology of urine formation in Ayurveda, manifestations of Vriddhi and Kshhaya of Mutra. c) Sveda: Etymological derivation, definition, formation and functions of Sveda. Manifestations of Vriddhi and Kshaya of Sveda. Discription of Svedvaha Strotas d) Dhatumala: Brief description of each type of Dhatumala.		
13	Panchagyane ndriya:	Physiological description of Panchagyaanendriya and physiology of perception of Shabda, Sparsha, Rupa, Rasa and Gandha. Physiological description of Karmendriya.	2	5
14	Manas	Etymological derivation, definition, synonyms, location, properties, functions and objects of Manas. Physiology of Manovaha Srotas	3	20
15	Atma:	Etymological derivation, definition, properties of Atma. Difference between Paramatma and Jivatma; Characteristic features of existence of Atma in living body	3	10
16	Nidra	Nidrotpatti, types of Nidra, physiological and clinical significance of Nidra; Svapnotpatti and types of Svapna	2	10

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
PAPER-II PART B				
1	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 haemoglobin, mechanism of blood clotting, anticoagulants, physiological basis of blood groups, plasma proteins, introduction to anaemia and jaundice.	8	25
2	Immunity	classification of immunity: Innate, acquired & artificial. Different mechanisms involved in immunity: Humoral (B-cell mediated) and T-Cell mediated immunity. Hypersensitivity..	3	20
3	Muscle physiology	comparison of physiology of skeletal muscles, cardiac muscles and smooth muscles. Physiology of muscle contraction	2	8
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.	8	35
5	Adipose tissue	Adipose tissue, lipoproteins like VLDL, LDL and HDL triglycerides.	1	5

Sr. No.	Topics	Description	No. of Lectures (Hrs)	Weight age (Marks)
6	Skin	Functions of skin, sweat glands and sebaceous glands.	1	5
7	Physiology of male and female reproductive systems	Description of ovulation, spermatogenesis, oogenesis, menstrual cycle.	5	35
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.	5	20
9	Endocrine glands	General introduction to endocrine system, classification and characteristics of hormones, physiology of all endocrine glands, their functions and their effects	10	35

PRACTICAL IN KRIYA SHARIR

MARKS : 100

LIST OF EXPERIMENT:-

Sr. No.	Topics	Description	Weight Age (Marks)
1	Ayurvedic practical	<ol style="list-style-type: none"> 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 	50

Sr. No.	Topics	Description	Weight Age (Marks)
2	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 leucocyte count 6. Packed cell volume (PCV) demonstration 7. ESR demonstration 8. Bleeding time, Clotting time 9. Blood grouping and Rh typing 10. Examination of Cardio-Vascular system a) Pulse examination b) Arterial blood pressure measurement c) Examination of heart sounds d) ECG demonstration 11. Examination of Respiratory system a) Respiratory rate b) Breath sounds c) Spirometry 12. Examination of Nervous System-	50

Sr. No.	Topics	Description	Weight Age (Marks)
		Sensory & Motor. 13. Urine examination –Physical examination, chemical examination. Test for normal constituents of urine. Detection of specific gravity and reaction of urine.	

UNIVERSITY EXAMINATION (*Practical*)

Laboratory Practical	Human Experiment	Spotting	Prakriti Saradi pariksha	Practical record	Viva-voice	Internal Assessment Marks	Total
15 marks	10 marks	10 marks	15 marks	10 marks	20 marks	20 marks	100 marks

REFERENCE BOOKS:-

Sr. No.	Books	Publication	Publication Year
1	Ayurvediya Kriyasharir - Ranjit Rai Desai	Chaukhambha sanskrut sansthan	1st edition 2008
2	Kayachikitsa Parichaya – C. Dwarkanath	Chaukhambha orientalia	1996
3	Prakrit Agni Vigyan - C. Dwarkanath	Chaukhambha orientalia	Latest Edition
4	Sharir Kriya Vigyan - Shiv Charan Dhyani	Chaukhambha orientalia	1st edition 1986
5	Abhinava Sharir Kriya Vigyana - Acharya Priyavrata Sharma	Nath pustak	Latest Edition
6	Dosha Dhatu Mala Vigyana - Shankar Gangadhar Vaidya	Latest Edition	Latest Edition
7	Prakrita Dosha Vigyana - Acharya Niranjana Dev	Ayurvedic tibbi akadami	1st edition 1971
8	Tridosha Vigyana – Shri Upendranath Das	Latest Edition	
9	Sharira Tatva Darshana - Hirlekar Shastri	Maharashtra raja sahitya & sankruti mandal	1st edition 1987

10	Prakrita Agni Vigyana - Niranjana Dev	Ayurvedic tibbi akadami	1st edition 1971
11	Deha Dhatvagni Vigyana - Vd. Pt. Haridatt Shastri	Latest Edition	
12	Sharir Kriya Vigyana (Part 1-2) - Acharya Purnchandra Jain	Latest Edition	
13	Sharir Kriya Vigyana - Shri Moreshwar Dutt. Vd.	Chaukhambha sanskrit pratishthan	2008
14	Sharira Kriya Vijnana (Part 1 and 2) – Nandini Dhargalkar	Chaukhambha sanskrit series office	2nd edition 2009
15	Dosha Dhatu Mala Vigyana - Basant Kumar Shrimal	Latest Edition	
16	Abhinava Sharir Kriya Vigyana - Dr. Shiv Kumar Gaur	Nath pustak	
17	Pragyogik Kriya Sharir - Acharya P.C. Jain	Latest Edition	
18	Concept of Agni - Vd. Bhagwan Das	VIDYAvilas press	1971
19	Purush Vichaya - Acharya V.J. Thakar	Ayurved Mudranalaya, JAMANAGAR university	1984
20	Kriya Sharir - Prof. Yogesh Chandra Mishra	Chaukhambha sanskrit sansthan	1st edition 2008
21	Sharir Kriya Vigyana – Prof. Jayaram Yadav & Dr. Sunil Verma.	Chaukhambha orientalis	2013
22	Basic Principles of Kriya- Sharir (A treatise on Ayurvedic Physiology) by Dr. Srikant Kumar Panda	Chaukhambha orientalia	2006
23	Sharir Kriya – Part I & Part II – Dr. Ranade, Dr. Deshpande & Dr. Chobhe	Profishant publising house	2015
24	Human Physiology in Ayurveda - Dr Kishor Patwardhan	Chaukhambha orientalis	2008

25	Sharirkriya Vignyan Practical Hand Book– Dr.Ranade, Dr. Chobhe, Dr. Deshpande	Anmol prakashan	1st edition 2002
26	Sharir Kriya Part 1 – Dr. R. R. Deshapande, Dr.Wavhal	Profishant publising house	2015
27	Sharir Kriya Part 2 – Dr. R. R. Deshapande, Dr. Wavhal	Profishant publising house	2015
28	Ayurveda Kriya Sharira- Yogesh Chandra Mishra	Chaukhambha publication	1st edition 2008
29	Textbook of Physiology - Gyton & Hall	CBS publication	13th edition
30	A Textbook of Human PhysiologyPart1 and 2) – A.K.Jain	Avichal publishing company	7th edition
31	Essentials of Medical Physiology - Sembulingam, K.	Jayapee brothers	6th edition 2013
32	Concise Medical Physiology - Chaudhari, Sujit K.	New central book agency	6th edition 2006
33	Principals of Anatomy & Physiology - Tortora & Grabowski	CBS publication	13th edition 2011
34	Textbook of Medical Physiology- Indu Khurana	Elsevier publication	2013

DPU

Dr. D. Y. PATIL VIDYAPEETH, PUNE
(Deemed to be University)

**Curriculum of
Ayurveda
Degree course-UG
(II - B.A.M.S.)
Programme**

**Academic Year
2018 - 19 and onwards**



Dr. D.Y. PATIL VIDYAPEETH, PUNE
(Deemed to be University)

(Re-accredited by NAAC with a CGPA of 3.62 on a four point scale at 'A' Grade)
(An ISO 9001 : 2015 Certified University)

Dr. A. N. Suryakar
Registrar

Ref. No. : DPU/34(4)/2019

Date : 10/01/2019

NOTIFICATION

In pursuance of the MHRD Notification No. F.10-12/ 2016-U.3 (A) dated 23rd February, 2018 the Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune have been included under the ambit of Dr. D. Y. Patil Vidyapeeth, Pune (Deemed to be University)


And whereas in pursuance of the resolution passed by the Board of Management at its meeting held on 27th December, 2018 vide Resolution No. BM-48(i)-18 the Curriculum of Ayurveda Degree Course-UG (2-B.A.M.S.) Programme for the Academic Year 2018-19 & onwards is hereby published.

The curriculum of II Year Bachelor of Ayurvedic Medicine & Surgery (B.A.M.S.) consists syllabus for following courses:

1. Charak Samhita Purvardha
2. Rasashastra evam Bhaishasjya Kalpana
3. Dravyaguna Vidnyan
4. Rog Nidan evam Vikruti Vidnyan

This syllabus will be useful to all the concerned. This will come into force with immediate effect.




(Dr. A. N. Suryakar)
Registrar

Copy to:

1. PS to Chancellor for kind information of Hon'ble Chancellor, Dr.D.Y.Patil Vidyapeeth, Pune.
2. PS to Vice Chancellor for kind information of Hon'ble Vice Chancellor, Dr. D. Y. Patil Vidyapeeth, Pune.
3. The Principal, Dr. D. Y. Patil College of Avurved & Research Centre, Pimpri, Pune
4. The Controller of Examinations, Dr. D. Y. Patil Vidyapeeth, Pune.
5. Director (IQAC), Dr. D. Y. Patil Vidyapeeth, Pune.
6. Web Master for uploading on Website.

INDEX

Sr. No.	Course Code	Contents	Page No.
1.	AA201	Charak Samhita Purvardha	1 – 3
2.	AA202	Rasashastra evam Bhaishajya Kalpana	4 – 28
3.	AA203	Dravyaguna Vidnyan	29 – 45
4.	AA204	Rog Nidan evam Vikruti vidnyan	46 – 60



**CHARAK SAMHITA
PURVARDHA**

TITLE OF THE COURSE : CHARAK SAMHITA (PURVARDHA)

COURSE CODE :- AA201

MARKS : THEORY – 100

PRACTICAL – 50

GOAL

- To explore the profound knowledge and basic principles from Charaka Samhitas.
- To propagate and to advocate the fundamental principles and techniques of Ayurveda for healthy and unhealthy conditions of human body.

LEARNING OBJECTIVE

- Health and lifestyle management through Dinacharya, Rutucharya, Sadvrutta etc.
- Demonstration of Ayurvedic fundamentals of Nidana (Diagnosis) with the help of complete and thorough knowledge.

LEARNING OUTCOME

- At the end of the course, student will be able to comprehend both prakruti and vikruti with the help of siddhantas, dosha sthiti and vyadhi avastha in every individual.

COGNITIVE DOMAIN

- Thorough Knowledge of Ayurvedic concepts like strotas, vaadamarga pada, pramanas etc mentioned in Charak Samhita.

PSYCHOMOTOR DOMAIN

1. Knowledge about preparation of kashaya kalpanas and various formulations.
2. Assessment of vikruti using nidan panchaka

AFFECTIVE DOMAIN

- To enable a student to practice pure Ayurvedic treatment.

COURSE DESCRIPTION :

Sr. No	Topics	Sthana	Description	No of Lectures (Hrs)	Weightage (Marks)
1	Charak Samhita 1 st term	Sutra sthana -1-15	Adhyaya – 1,5,7,9,10,11,12,13,14	40	20
			Adhyaya – 2,3,4,6,8,15		
		Nidana sthana -1-4	Adhyaya – 1-4	17	8
		Vimansthana -1-4	Adhyaya – 1-4	18	8
		Sharir sthana -1-4	Adhyaya – 1	10	5
			Adhyaya – 2,3,4		
		Indriyasthana -1-6	Adhyaya – 1,5	5	3
			Adhyaya – 2,3,4,6		
Practical	Clinical case study	10	10		
2	Charak Samhita 2 nd term	Sutra sthana -16-30	Adhyaya – 16,17,21,22,23,24,25,26,28	45	15
			Adhyaya – 18,19,20,27,29,30		
		Nidana sthana -5-8	Adhyaya – 5-8	20	7
		Vimansthana -5-8	Adhyaya – 5-8	20	7
		Sharir sthana -5-8	Adhyaya – 5,6	10	5
			Adhyaya – 7,8		
		Indriyasthana -7-12	Adhyaya – 7,12	5	3
			Adhyaya – 8,9,10,11		
Practical	Clinical case study	10	10		

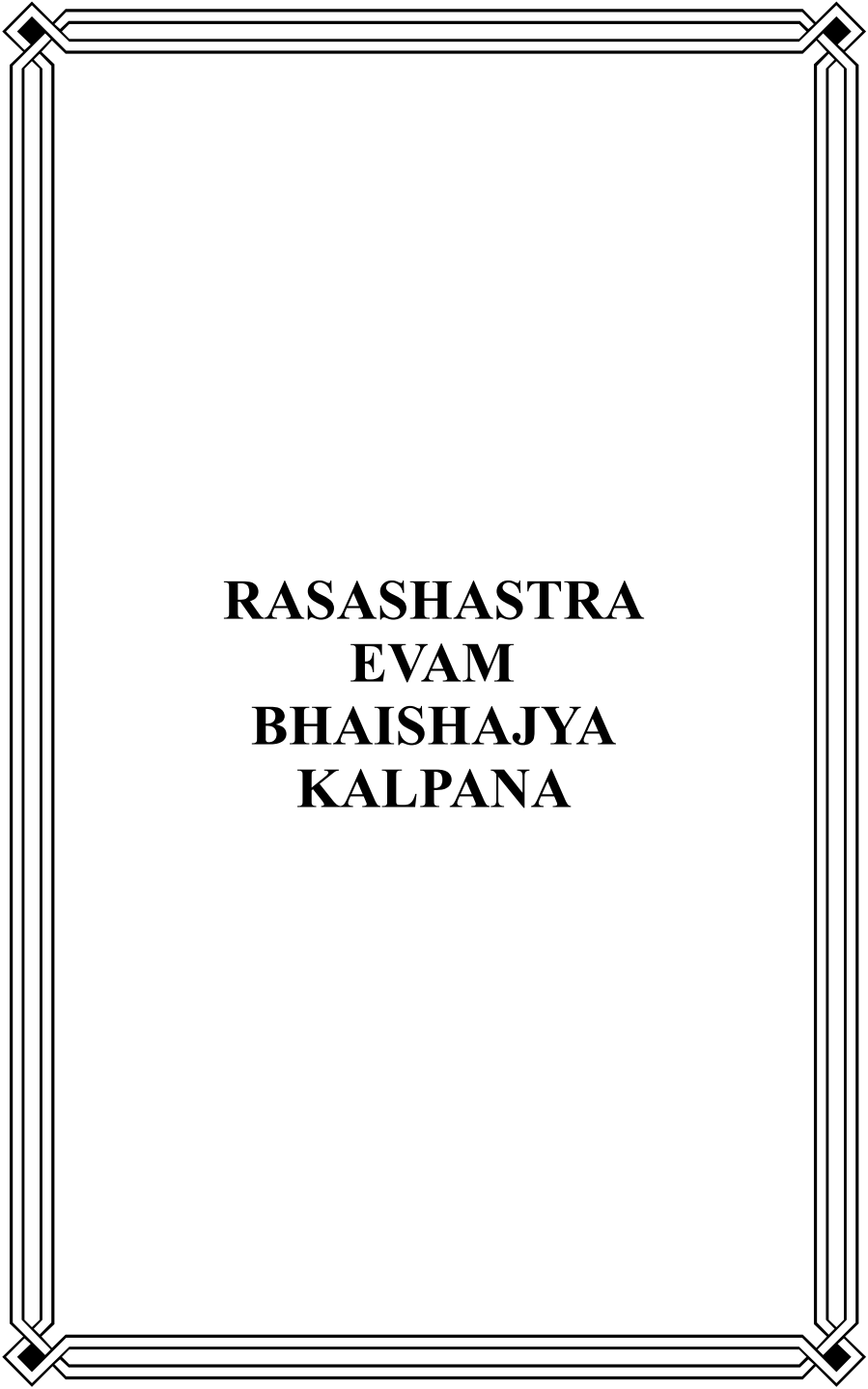
Student has to take minimum 10 cases from IPD of institute.
Special case Proforma will be provided by department.

UNIVERSITY PRACTICAL EXAMINATION PATTERN: 50 MARKS

Sr. No.	Oral	Shloka wali	Compilation	Samhita based Case taking	Internal Assessment	Total
Marks						
1	15	5	10	10	10	50

REFERENCE BOOKS :

Sr. No.	Book	Author / Editor	Publication
1	Charak Samhita dyotini tika -hindi	Kashinath Shastri	Chaukhamba Bharti Acedemy, Varanasi 1992
2	Charak Samhita-English	P.V.Sharma	Chaukhamba orientalia Varanasi 2008 4 th edition
3	Charak Samhita- hindi	Kashinath Shastri/ Gorakhnath Chaturvedi	Chaukhamba Bharti Acedemy, Varanasi
4	The legacy of Charak-English	M.S.Valiathan	Oriented Longman Pvt. Ltd. Chennai-02 2003
5	Sanshipta Charak Samhita- hindi	Anantram Sharma	Chaukhamba Barti Prakashan, Varanasi 2005 1 st edition
6	Drusthartha Charak chintamani-Marathi	P.G.Aathavle	Dhanvantari books & stores, nandanvan, Nagpur. 2007 reprint
7	Charak Samhita- Sanskrit	Kaviraj Yogindranath Sen	Chaukhamba Vidyabhavan Varanasi
8	Charak Samhita- Hindi	Laxmidhar Dvivedi	Chaukhamba Krushnadas Acedemy, Varanasi, 2013 Reprint
9	Charak Samhita-hindi	Vd.Harishchandra Singh Kushvaha	Chaukhamba orientalia Varanasi 2012 Reprint
10	Charak Samhita with Commentary by Chakrapani	Yadavaji Trikamaji Acharya	Chaukhamba Surbharati Prakashan, Varanasi, Edi. 2015



**RASASHASTRA
EVAM
BHAISHAJYA
KALPANA**

**TITLE OF THE COURSE: - RASASHASTRA EVAM BHAISHAJYA
KALPANA (Iatrochemistry and Ayurvedic Pharmaceutics)**

COURSE CODE: - AA202

MARKS: THEORY = (PAPER I = 100 + PAPER II = 100) 200 MARKS

PRACTICAL (VIVA VOCE) = 200 MARKS

TOTAL = 400 MARKS

GOALS

To make student competent in preparation of herbo- mineral medicines & therapeutic uses.

LEARNING OBJECTIVE

1. To acquire the theoretical knowledge and principles related to Rasashastra and Bhaishajya kalpana.
2. To know the standard operating procedure for Ayurved dosage forms.
3. To develop and modify classical formulations adopting modern technology.
4. To know rules and acts related to manufacture ayurved medicines.
5. To identify and know of Modern instruments related to preparation and standardization.

LEARNING OUTCOME

Student should be able to:

1. Acquire the theoretical knowledge and principles.
2. Know the standard operating procedure for Ayurved dosage forms.
3. Know standardization parameter for raw drugs and Ayurved dosage forms theoretically and practically.
4. Identify and know modern instruments for preparation and standardization.
5. Therapeutic application in clinical practices like Kayachikitsa, Panchakarma, Streerog- Prasuti Tantra, Kaumarbhritya, Shalyatantra, Shalakyatantra, etc.

- **COGNITIVE DOMAIN**

At the end of the training students should be able to-

1. Be competent theoretically on ayurvedic Iatrochemistry
2. To have expertise knowledge of formulation, various dosage forms, therapeutic uses of formulations, standardization, modern instruments.

- **PSYCHOMOTOR DOMAIN**

At the end of the training students should be able to-

1. Identify various minerals and metals on ayurved parameter.
2. Demonstration and standardization of ayurvedic dosage forms as per Ayurved Pharmacopeia of India and WHO guidelines.
3. Preparation of different dosage forms as per Ayurved formulary of India.
4. Establish ayurved pharmacy

- **AFFECTIVE DOMAIN**

At the end of the training students should be able to-

1. Utilize Rasashastra and Bhaishajya kalpana formulation and therapeutic uses in clinical practices.
2. To comprehend the acquaintance of identification, manufacturing and standardization of ayurvedic formulations.
3. Utilize scientific methods for new inventions in Rasashastra and Bhaishajya kalpana.

PAPER 1 : RASASHASTRA	MARKS - 100
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FIRST TERM	PART- A	MARKS - 50
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Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
1.	History of Rasashastra Raseshwar Darshana	Definition and etymology of Rasa, History of Rasashastra, Importance of Rasaushadhi, Concept of Rasa-Rasayana, Concept of Raseshwar Darshana. Concept of Rasashala and Rasamandap.	2	5
2.	Paribhasha	Brief Description and Application of Technical terminologies (Paribhasha): Avapa, Nirvapa, Dhalana, Bhavana, Jarana, Murchana, Shodhana, Marana, Amrutikarana, Lohitikarana, MrutaLoha, Satwa Patana, Druti, Apunarbhava, Niruttha, Rekhapurna, Varitara.	2	6
3.	Paribhasha of dravya	DravyaVarga: Amlavarga, Panchamrittika, Panchagavya, Panchamrita, Ksharashtaka, Dravakagana, Mitrapanchaka, Raktavarga, Lavanapanchaka.	2	6
4.	Yantra	Brief description of Yantras and their application Ulukhala Yantra, Khalwa Yantra, Kachhapa Yantra, Damaru Yantra - Vidhyadhara Yantra- Urdhwapatan, Addhapatan and Tiryakpatana Yantra, Jaranartha Tulayantra,	4	15

Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		Dolayantra, Patalayantra, Palika Yantra, Baluka Yantra, Bhudhara Yantra, Sthali Yantra, Swedana Yantra.		
5.	Musha	Brief description and application of Musha (Crucible): SamanyaMusha, Gostanimusha, Vajra Musha, Mahamusha, Yoga musha, VrintakaMusha, Malla / Pakwamusha. Different types of crucibles e.g. Silica crucible, platinum crucible. Mudra and SandhiBandhana.	3	10
6.	Koshti	Brief description and applications of Chullika, SatwapatanaKoshthi, PatalaKoshti, GaraKoshthi, Angarakoshthi and knowledge of various heating appliances viz. Gas stove, Hot plate, Heating mantle, Induction Stove, Hot Air Oven, Blower.	3	5
7.	Putra	Concept, definition and types of Putra: Suryaputra, Chandraputra, Gomayaputra, Lawakaputra, Kukkutaputra, Kapotaputra, Varahaputra, Gajaputra, Mahaputra, Kumbhaputra, Valukaputra, Bhudharaputra, Applications of Electric muffle furnace and fuel (diesel) dependent furnace. Brief introduction to thermocouple & pyrometer.	4	15
8.	Parada	Parada: Synonyms, Knowledge Occurrence,	12	20

Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		natural and artificial sources of Parada, Hingulottha parada, Types of Parada, Parada Dosha: Naisargika, Yougika, Aupadhika (Kanchuka). Grahya-Agrahya Parada, Paradagati, Paradabandha, Shodhana of Parada. Paradasanskara and brief description of Ashtasamskara.		
9.	Rasa vignaniyam	Concept of Murchhana and Jarana of Parada, Preparation of Kajjali, Classification of Rasaushadhi: Khalvi rasa e.g. TribhuvanaKeerti Rasa, Parpati Rasa- Rasa Parpati, Kupipakva Rasa- Rasa sindur, Pottali rasa - Hemagarbhapottali. Rasa sevanavidhi and pathya and apathya.	13	20
10.	Standardization and GMP of Rasaoushadhies.	Brief introduction of quality control, standardization and GMP of Rasaoushadhies.	5	15

SECOND TERM		PART- B	Marks - 50	
Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
1	Maharasa	Occurrence, Synonyms, Minerological identification, Sources, Types, Grahya and Agrahyata, Shodhana, Marana and other processing techniques. Properties, dose, anupan and therapeutic uses, pathya – apathya and ashuddha, apakwa and avidheesevanjanya dosha and its management, important formulations of the following: 1. Maharasa –Abhraka (Biotite Mica), Vaikrantha, Makshika (Chalco-pyrite), Vimala (Iron Pyrite), Shilajatu, Sasyaka (Peacock ore), Chapala and Rasaka.	6	15
2	Uparasa	Uparasa – Gandhaka (Sulfur), Gairika (Red Ochre), Kasisa (Green Vitriol), Kankshi (Alum), Haratala (Orpiment), Manahshila (Realgar), Anjana and Kankustha.	6	15
3	Sadharana Rasa	Sadharana Rasa – Kampillaka, Gauripashana (Arsenic oxide), Navasagara (Ammonium chloride), Kaparda (Cowry), Agnijara, GiriSindura (Red oxide of Hg), Hingula (Red Cinnabar) and Mriddarashringa (Litharge).	6	15
4	Dhatu	Dhatu -Swarna (Gold), Rajata (Silver), Tamra (Copper), Loha (Iron),	6	20

Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		Vanga (Tin), Naga (Lead), Yashada (Zinc), Kamsya (Bronze), Pittala (Brass), Vartalooha. Dhatu - Grahasambandha.		
5	Ratna	Ratna - Manikya (Ruby), Mukta (Pearl), Pravala (Coral), Tarkshya (Emerald), Pushparaga (Topaz), Vajra (Diamond), Nilam (Sapphire), Gomeda (Zircon or Cinnamone stone), Vaidurya (Cats eye). Ratnapariksha, Ratnadosha, Ratna - grahasambandha.	4	15
6	Uparatna	Uparatna - Vaikranta (Tourmaline), Suryakanta (Sun stone), Chandrakanta (Moon stone), Rajavarta (Lapis lazuli), Perojaka (Turquoise), Sphatikamani (Quartz), Trinakanta, Palanka, Putika, Rudhir.	2	5
7	Sudhavarga	Sudhavarga – Sudha (Limestone), Kaparda (Cowries), Shukti (Oyster Shell), Shankh Conch Shell, Mrigashringa (Stag horn), Khatika, Godanti (Gypsum) and Samudraphena (Cattle Fish bone), Kukkutandatwak (Hen's Egg Shell).	3	15

Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
8	Sikatavarga	Sikatavarga - Sikata (Silica), Dugdhapashana (Talc), Nagapashana / Jaharmohara (Serpentine), Badarshama (silicate of lime), Vyomashma (Sangeyashab - Jade), Kousheyashma (Asbestos) and Akika (Agate).	2	3
9	Ksharavarga	Ksharavarga - Sarjakshara (Sodium bicarbonate), Yavakshara, Tankanakshara (Borax), Surya Kshara (Potassium Nitrate).	2	3
10	Miscellaneous	Miscellaneous- Mandura, Bola, Dam-ul Akhawayan (Raktabandhini), Kasturi, Bhoonag, Mayurpiccha, Sarjarasa, Madhoochhishta, Updhatu.	1	3
11	Visha and Upavisha	Visha and Upavisha- Introduction, collection and storage, classification, synonyms, shodhana, antidote, therapeutic and toxic doses, anupan, therapeutic uses, and formulations of following Visha and Upavisha- Vatsanabha, Kuchala, Jayapala, Dhattura, Bhanga, Bhallataka, Gunja, Arka, Snuhi. Langali, Karaveera, Ahiphena and Chitrakmool.	3	15

Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
12	Aushadhi Yoga Gyanam	Aushadhi Yoga Gyanam-ingredients, manufacturing process, and bsheshajprayogvidhi. ArogyaVardhiniGutika, Kasturibhairava Rasa, Kumara Kalyana Rasa, Garbhapala Rasa, ChandraprabhaVati, Chandramrita Rasa, Pratapalankeshwara Rasa, Pravalapanchamrita Rasa, Anandbhairava Rasa, Yogendra Rasa, Laxmivilas Rasa, Vasanta kusumakara, Vasantamalati Rasa, BrihatVataChintamani Rasa, Shankhavati, Shwaskuthara Rasa, Hinguleswara Rasa, Hemagarbha pottali, Hridyarnava Rasa, Swarnavanga, Makaradhwaja, PutapakwavaishamJwaranta kaLoha, Vatvidhvamsan Rasa, Kamadugha Rasa, Laghusutshekhara Rasa, NavayasaLoha, Saptamrita Loha, TamraParpati, Panchamrita Parpati, SvetaParpati.	7	20
13	pharamcovigilance	Introduction to pharamcovigilance and its status in India, with reference to Ayurvedicdrugs	2	5
Total Hrs - 50				

RASASHASTRA PRACTICALS MARKS – 100

Minimum Thirty Practicals to be performed
(Minimum one from each group)

Group No.	Name of Group	Name of the Practical
1	Rasa [Parada]	SamanyaShodhana of Parada Kajjali
2	Maharasavarga	Shodhana of Abhraka
		Dhanyabhrakanirmanana
		Shodhana of Makshika
		Shodhana of Shilajatu
		Shodhana of Sasyaka, Shodhana of Rasak
3	Uparasavarga	Shodhana of Gandhaka
		Shodhana of Gairika
		Shodhana of Kasisa
		Shodhana of Kankshi
		Shodhana of Haratala
		Rasa manikyanirman Shodana of Manashila
4	Sadharana rasa varga	Shodhana of Hingula
		Shodhana of Navasadar
		Shodhana of Kapardika
		Shodhana of Kampillak
5	SudhaVarga	Shodhana of Shankha
		Shodhana of Shukti
		Shodhana of Pravalamula
		Shodhana of Godanti
6	Dhatuvarga	SamanyaShodhana of Lauha
		SamanyaShodhana of Tamra
		Vishesh Shodhana of Tamra
		Shodhana of Naga
		Shodhana of Vanga Shodhana of Yashada
7	KsharaVarga	Shodhana of Tankana
8	Parpati	Preparation of Rasaparpati
		Bola Parpati
		Swetaparpati

9	Vishavarga	Shodhana of Vatsanabha
		Bhallataka Shodhana
		Kupilu Shodhana
		Dhatturabeeja Shodhana
		Jayapala Shodhana
		Gunja Shodhana
		Chitrakamoola Shodhana

MINIMUM 11 PRACTICAL FOR DEMONSTRATION / GROUP PRACTICALS :

1. Hinguladrasakrishti (Hingulottha Parada).
2. Bhasma: 4 (One from each group)
 - i. Abhrakabhasma, Swarna Makshikabhasma, Tamrabhasma
 - ii. Vangabhasma, Naga bhasma, Yashadabhasma
 - iii. Mandurabhasma, Kasisabhasma
 - iv. Shankhabhasma, Kapardikabhasma, Godantibhasma.
3. Pishti : (Minimum One)1 Pravala pishti, Jaharmohara / Akika pishti, Trina kanthamani pishti, Mukta pishti.
4. Druti : 1 Gandhakadruti.
5. Formulations 4 (one from each group)
 - i. Rasasindura, Swarnavanga, Sameer pannaga rasa
 - ii. Saptamrutalauha, Punarnavamandura, Navayasalauha
 - iii. Agnitundivati, Tribhuvanakirti rasa, Sootshekhara rasa,
 - iv. Laghusutashekhara Rasa iv. Arogyavardhinivati, Laghumalinivasanta rasa, Hinguleshwar rasa, Anandbhairav rasa, Rajpravartinivati.

PAPER 2 : BHAISHAJYA KALPANA	MARKS - 100
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FIRST TERM	PART- A	MARKS - 50
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Sr. No	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
1.	History of Bhaishajya kalpana	History and Chronological (kramikavikasa) development of Bhaishajyakalpana. Concept of Aushadha and Bhaishajya.	3	5
2.	Fundamental principles of Bhaishajya Kalpana	Fundamental principles of Bhaishajya Kalpana	3	15
3.	Maana' (Units of measurement),	Study of Ancient and Contemporary systems of 'Maana' (Units of measurement), Shushka -ardra – drava- dravyagrahanniyam (Rules of measures of dry, fresh, liquid drugs); Grahyagrahyatva, Nava Purandravyagrahanniyam.	3	10
4.	Preservation of Aushadhidravaya. Concept of Saviryatavadhi (shelf life)	Guidelines and Methods of collection, storage, preservation of Aushadhidravaya. Concept of Saviryatavadhi (shelf life) and stability in ancient and	3	10

Sr. No	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		contemporary science.		
5.	Bheshajprayoga vidhi (Posology).	Bheshajprayogavidhi : Aushadha Matra, Anupana and sahapan and Aushadhsevankaala. (Posology).	3	10
6.	Panchavidhakas haya kalpana and Upakalpana	Panchavidhakashayak alpna and Other kalpana : Kashaya Yoni, Swarasa, Kalka, Kwatha, Hima and Phanta, Pramathya, Aushadha siddha paniya, Tandulodaka, Laksha rasa, Mantha, Panaka, Arka, Churna, Rasakriya, Ghana, Phanita, Avaleha, Prasha, Gudapaka, Sharkara, Syrups, Ksheerapaka, Satva, Guggulu kalpana, Vati, Guti, Pinda, Modaka, Varti Preparation of Tablets, pills, capsule and Suppositories. Masikalpana, Lavanakalpana, Ksharakalpana and Kshara sutra	14	30
7.	Instruments/ Equipments	Introduction and general knowledge of useful instruments/ Equipments - Disintegrator, Mixer,	6	10

Sr. No	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		Grinder, End Runner, Edge Runner, Sieve-Shaker, Granulator, Tableting machine, Pill making machines, coating and polishing pan, capsule filling machine, sieves and mesh.		
8.	Snehakalpana	Snehakalpana : Sneha yoni, Types of Sneha, Snehamurchanavidhi, Snehapakavidhi, patrapaka, types and their use. Sneha siddhi lakshana, dose, Preparation and uses of Triphala Ghrita, Bramhighrita, Narayanataila, Anutaila.	6	15
9.	Sandhana Kalpana	Sandhana Kalpana and its types: Madya Kalpana, Asava, Arishta, Sura (Prasanna - Kadambari - Medaka - Jagala - Bakkasa), Maireya, Surasava, Shukta, Kanjika, Sauviraka, Tushodaka, Sidhukalpana their methods of preparation, siddhi lakshana, properties, uses, doses. Takrarishta,	5	15

Sr. No	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		Draksharishta, Ashokarishta, Dashamoolarishta, Kumaryasava, Chandanasava.		
10.	Kritanna and Aushadhisiddha anna Kalpana	Kritanna and Aushadhisiddhaanna Kalpana : Definition of Kritanna, Concept of Pathya and Apathya, Yavagu–types of yavagu, Manda, Peya, Vilepi, Anna, Bhakta, Odan, Yushtypes, Krishara, Mansa rasa, Vesavara, Khad Kamblika, Raga, Shadava, Dadhi and TakraVarga-Takra, Udasvita, Katvar, Mathita, Chhachika.	4	15
Total Hrs - 50				

SECOND TERM		PART- B	MARKS - 50	
Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
1	Bahyopachara rthakalpana	Bahyopachararthakalpana (External Applications)- Lepa -Types of Lepa, methods of preparation and mode of application. Udvartan and Avachurnan, Method of preparation of SikthaTaila, Malahara - SarjarasaMalahara, Gandhak Malahara, Upanaha, Atasiupanaha, Shatadhouta and Sahastradhouta Ghrita. Brief introduction of semi solid dosage forms Ointments, Creams, Emulsions, Gels, Lotions.	7	20
2	2.1 Netraupachar artha kalpana	Principles and precautions for preparation of formulations of Netraupachararthakalpana (Ophthalmic preparations) – Seka, Drava, Pindi, Anjana - Ashchyotana - Tarpana - Putapaka and Vidalaka, Methods of preparation of eye drops, eye ointments.	5	15
	2.2 Nasyopachara rth Kalpana	Principles & precautions for preparation of formulations Of Nasyopachararth Kalpana - Classification of Nasya, Navana, Avapidana, Pradhama, Marsha & Pratimarshanasya.	5	15
	2.3 Dhumpan	Principles and precautions for preparation of formulations of Classification of dhumpan,	4	10

Sr. No.	Topics	Description	No of Lectures (Hrs)	Weightage (Marks)
		Method of preparation of dhumvarti and it's therapeutic uses. Dhupan: Vranadhupan, arshodhupan.		
	2.4 Gandoosha - Kavala	Principles and precautions for preparation of formulations of Gandoosha - Kavala - Pratisaran, Toothpaste, Tooth powders and Mouth wash.	3	5
	2.5 Bastikalpana	Principles and precautions for preparation of formulations of Bastikalpana classification, Method of preparation of Niruha and Anuvasana, Basti Therapeutic properties and uses of Basti.	4	15
3		Brief knowledge of Standardization of Ayurvedic formulations- Kashaushadhi.	2	5
4		Brief introduction of Drug and Cosmetics Act 1940 and Rules 1945	4	15
5		Concept of, Aushadhi Nirmanshala, with respect to Good Manufacturing Practices (GMP) in accordance to Schedule	6	15
Total Hrs - 51				

PRACTICALS	BHAISHJAYA KALPANA	Marks - 100
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Following practicals to be performed (Minimum one from each category)

Method of preparation, therapeutic uses, dose and anupana of the following.

Group No.	Name of Group	Name of the Practical
1	Swarasa	Ardrakaswarasa
		Tulasiswarasa
		KumariSwarasa
		Vasa putapakaswarasa
2	Kalka	Nimbakalka
		Rasonakalka
3	Kwatha	Punarnavasthakakwatha
		Rasna Saphthakakwatha
		Triphala kwath
4	Hima	Dhanyakahima
		Sarivadi hima
5	Phanta	Panchakolaphanta
		Yastimadhu Phanta
6	Pramathya	Mustadipramathya
7	Mantha	Kharjuradimantha
8	Aushadh siddha paniya	Shadangapaniya
9	Laksha Rasa	
10	Arka	Yavaniarka
		Gulabarka
		Misreyaarka
11	Sharkara	Banapshasharkara
		Nimbusarkara
12	Churna	Sitopaladi Churna
		Hinguwashtaka Churna
		Talisadi Churna
		Lavanbhaskar
13	Gutika	Chitrakadi Gutika
		Sanjivani Vati
		Lavangadi Vati
		Lashunadi Vati
14	Guggulu	Triphala Guggulu
		Kaishora Guggulu
		Sihnad Guggulu
15	Avaleha	Chyavanaprashavaleha

Group No.	Name of Group	Name of the Practical
		Vasavaleha
		VyaghriHaritakiavaleha
		Manibadraavaleha
		Kushmandavleha
16	Rasa kriya -	Darvi Rasakriya
		Guduchi Ghana
		Kutaja Ghana
17	Khanda	Haridrakhanda
		Narikelakhanda
		Sowbhagyashuntipaka
		Shatavari Kalpa
18	Satva	Amrutasatva
	Varti	Phalavarti
		Chandrodayavarthi
19	Lavana	Arkal avana
		Narikelalavana
20	Masi	Triphalamasi
		MayurpicchaMasi
21	Ksheerapaka	Arjunaksheerapaka
		Rasonaksheerapaka
		ShunthiKsheerpaka
22	Kshara	Apamargakshara
		Snuhikshara
		Yavakshar
		Ksharasutra
23	Kritanna Varga	Manda
		Peya
		Vilepi
		Yavagu
		Krishra
		Vesavara
24	Yusha	Mudgayusha
		Saptamushtikayusha
25	Aristha	Kutajarishta
		Takrarishta
26	Asava	Kumaryasava
		Draksharishta
		Ashokarishta
		Kanakasava

Group No.	Name of Group	Name of the Practical
27	Suktakalpana	Kanji
28	Udaka	Tandulodaka
29	Upanaha	AtasiUpanaha
30	SikthaTailaNirmaan	
31	Malahara	Sarjarasamalahara, Gandakamalahara Cream Emulsion
32	SnehaKalpana – Sneha Murchhana	Ghrita Murchana TailaMoorchhana
33	Ghritakalpana:	Jatyadighrita Triphalaghrita ksheerashatphalaghrita
34	Taila kalpana-	Panchaguna taila Arkataila Balataila Jatyaditaila Nimb Tail
35	Tailapatana	Bhallatakatailapatana, Jayapalatailapatana
36	Shodhana	Guggulu Hingu

Visit of minimum three GMP approved Ayurvedic manufacturing units
Pharmacy visit report should include following points.

1. Name
2. Address
3. Date of Visit
4. Area
5. Number of employees
6. Drugs
7. Turnover

8. Sections –
- i. Raw material
 - ii. Pharmacognosy Unit
 - iii. Grinding Unit
 - iv. Tablet Making / Capsule / granulating unit
 - v. Taila / Ghruta/ Kwatha / Syrup / Asava-Arishta / Avaleha
 - vi. Quality control
 - vii. Packaging Unit
 - viii. Finished products storage
 - ix. Dispatch Unit

University Practical Examination Pattern -

Spotting	Rasa Practical	Bhaishjya Practical	Viva	Journal	Formulations*	IA	Total Marks
Marks							
20	25	25	50	20	20	40	200

*** Indicate two formulations one formulation from Rasashastra and one from Bhaishjya Kalpana**

Drug Formulation Report should include following points.

- I. Importance of Title,
- II. Ingredients,
- III. Equipments,
- IV. Method of preparation,
- V. Modification if any,
- VI. Uses with pharmacological action,
- VII. Precaution, any observations,
- VIII. Conclusions,
- IX. Textual reference with short bibliography,
- X. In process photographs.

REFERENCE BOOKS:

Sr No	Book Name	Author	Publication	Edition
1)	Adyatan Rasa Shastra	R.K. Goyal	Chaukhamba Surbharati publication, varanasi	1 st edition 1988
2)	Abhinav Rasa Shastra	Vaidya Somade V Sharma		
3)	AsavaArishta Vigyanam	Dr. Pakshdhar Jha	Chaukhamba Bharati Academy, varanasi	3 rd edition 1997
4)	Ayurvediya Rasa Shastra (Sachitra)	Chandrabhusan Jha	Chaukhamba Surbharati publication, varanasi	Reprint 2000
5)	Ayurvediya RasaShastra	Badrinarayan Pandey	Chaukhamba Surbharati publication, varanasi	3 rd edition 1995
6)	Rasa Bhaishajya Paribhasa	Sureshananda Thapaliyal		
7)	Ayurvediya Rasa Shastra	Prof. Siddhi Nandan Mishra	Chaukhamba Orientalia publication, varanasi	12 th edition 2002
8)	Ayurved Prakash	VaidyaGulraj Sharma Mishra	Chaukhamba Bharati Academy, varanasi	Reprint 1999
9)	Drugs & Cosmetic Act – 1940			
10)	Paka Darpana	Dr. Indradev Tripathi	Chaukhamba Sanskrit Sansthan, Varanasi	2 nd edition 1983
11)	The Paka-darpana of King Nala	Dr. Madhulika critical study		
12)	Parada Vigyaniam	Vasudev M. Dwivedi	Sharma Ayurved Mandir,	3 Rd Edition 1997

13)	Pratyaksha Aushadh Nirmanam	Acharya Vishwanath Dwivdei		
14)	Bhaishjyakalpana Vigyanam	Dr. Agnihotri	Chaukhamba publication, varanasi	Reprint 1999
15)	Rasa Tarangini	Aacharya Sadanand Sharma	Motilal Banarasidas, Varanasi	Reprint 2000
16)	Rasa Darpan	Prof. Bhajan Das Swami	Nath Pustak Bhandar, rohtak	3 Rd Edition 1998
17)	Rasa Bindu	Dr. Sanjay Sharma	Nath Pustak Bhandar, rohtak	1 st Edition 1978
18)	Rasa Bhaishajya KalpanaVigyan	Vaidya Santosh Kumar Khandal	Publication Scheme, Jaipur	7 th Edition 2014
19)	Rasa Mitra	Dr. Tryambak Nath Sharma		
20)	Rasa Ratna Samuchchaya (Hindi)	Dattatreya Ananta Kulkarni.	Meherchand Lachhamanchan d publication, New Delhi	Reprint 1998
21)	Rasaratnasamuch chaya	Ambikadattash astri		
22)	Rasaratnasamuch chaya	Damodar Joshi		
23)	Rasa Shastra Prayogiki	Srivastava, Yadav and Prof. Ramesh Saxena		
24)	Rasamritam	VaidyaYadavji Tirkramji Acharya	Chaukhamba Sanskrit Sansthan, varanasi	Reprint 2007
25)	Rasayan Sara	Vaidya Shyam Sunderacharya Vaishya	Krishnadas Academy	6 th Edition 1997
26)	Rasendra Sampradaya	Vaidya Hajari Lal Sukul		
27)	Rasendra Sara Sangraha	Vaidya Gopal Krishna Bhatt (narendranath mishra)	Motilal Banarasidas	Reprint 1999

28)	Vaidyak Paribhasha Pradeep (Hindi Translation)	Dr. Indradev Tripathi		
29)	Sharangadhara Samhita	Dr. Radhakrishna Parashar		
30)	Bharatiya Bhaishajya Kalpana Vigyana	GananathVishwanathDwivedi		
31)	Bhaishajya Kalpana Vijnanam	Dr. K Ramachandra Reddy	Chaukhamba Sanskrit Bhavan, varanasi	3 Rd Edition 2004
32)	Rasa Shastra (English)	Prof. Damodar Joshi	Chaukhamba Orientalia publication, varanasi	Reprint 2013
33)	Rasa Ratna Samuchchaya (English)	Prof. Damodar Joshi		
34)	Rasendra Chintamani (Hindi)	Aacharya Dhundhuknath (Prof. Siddhinandan Mishra)	Chaukhamba, Varanasi	1 st edition, 2000
35)	Ayurvedic formulary of India		Govt. of India, Ministry of Health, & Family Welfare, Dept. of Ayush, New Delhi	
36)	Ayurvedic Pharmacopiea of India, CCRAS		Govt. of India, Ministry of Health, & Family Welfare, Dept. of Ayush, New Delhi	edition 2008
37)	Bhaishajya Kalpana Vigya	Siddhi Nandan Mishra	Chaukhamba Surbharati publication, varanasi	Reprint 2004

38)	Textbook of Rasashastra	Dr. K Ramachandra Reddy		
39)	Ashadhayoga Vigyanam	Dr. K. Ramachandrareddy		
40)	Vaidyaka Paribhasha Pradipa (English Translation)	Dr. K. Ramachandra Reddy and Dr. P. Suresh		
41)	Vaidyaka Paribhasha Pradipa	Dr. Indradev Tripathi	Chaukhamba, Varanasi	1 st edition, 1982
42)	Relevant parts of Brihatrayee			
43)	Textbook of Bhaishjya Kalpana -	DrShobha G Hiremath	IBH publication, Bangalore	1 st edition, 2000
44)	Textbook of Rasa Shastra	Dr P H C Murthy	Chaukhamba Sanskrit Series, varanasi	1 st edition, 2008
45)	Rasa Chandashu	Prof S SSavirkar (CCRAS Publication)		
46)	Yoga Ratnakara	Vd Shri Laxmipati Shastri	Varanasi, Chaukhamba Prakashan	Reprint 2012
47)	Bhaishajya Ratnavali,	Prof Siddhi nanndann Mishra	Chaukhamba, Varanasi	1 st edition 2005

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**DRAVYAGUNA
VIDNYAN**

**TITLE OF THE COURSE : DRAVYAGUNA VIDNYAN
(PHARMACOLOGY AND MATERIA MEDICA)**

COURSE CODE : AA203

MARKS : THEORY (PAPER I) 100 + (PAPER II)100 = 200 MARKS

TOTAL MARKS : 400

PRACTICAL/VIVA VOCE – 200 MARKS

GOAL

- To make knowledgeable students of basic fundamentals of Dravya guna, Medicinal Plants, their identifications, properties, action and therapeutic uses.

LEARNING OBJECTIVE

- Knowledge of basic fundamentals of Dravyaguna.
- Knowledge of Medicinal Plants (Herbs), their identifications, properties, action and therapeutic uses.
- Knowledge of basic fundamentals of modern Pharmacology and brief knowledge of pharmacokinetics, pharmacodynamics of modern drugs
- To aware pharmacovigilance.

LEARNING OUTCOME -

The student should able to:

- recognize the basic concepts and principles of Dravyaguna
- know basics of cultivation, propogation and collection practices of herbs.
- identify medicinal plants and drugs along with their properties, doses, side effects, allergic reaction, antidotes and purification of poisonous drugs.
- Prescribe single herbs for basic health issues.
- Recognize importance of Dravyaguna in research of various field.

COGNITIVE DOMAIN

Comprehend the knowledge of Basic Fundamentals of Dravyaguna vidnyan, and various aspects of medicinal plants like their identifications, properties, action and their therapeutic uses.

- Knowledge of quality standard of plant originated drugs for safe use.
- Knowledge of Identification of such medicinal plants which have still controversy with the help of manuscripts.

PSYCHOMOTOR DOMAIN

At the end of the training students should be able to-

1. Demonstrate and dissect various useful parts of medicinal plants by its macroscopic and microscopic examination
2. Analysis of synonyms related to external morphology of medicinal plants
3. Demonstrate Classification of crude drugs by its morphological, microscopically and taxonomical basis
4. Field identification of medicinal plants and preparation of herbarium sheets during field visit
5. Prepare and deliver seminar on various topics of Dravyaguna vidnyan using audio visual aids.
6. Identify various E-learning resources related to Dravyaguna vidnyan and inculcate them for self learning.

AFFECTIVE DOMAIN

At the end of the training students should be able to-

- 1) Application of knowledge of medicinal plants properties in all clinical subjects.
- 2) Competent Ayurvedic pharmacologist.
- 3) To perform the almost possible ethical practice in the society.

PAPER - I	PART – A
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Sr. No.	Topic and Description	No. of Lectures Hrs.	Weight age Marks
1	Dravyaguna Shastra Paribhasa- Lakshana of Sapta Padartha of Dravyaguna Vidyana viz Dravya-, Rasa-Guna- Virya- Vipaka- Prabhava and Karma	2	5

Sr. No.	Topic and Description	No. of Lectures Hrs.	Weight age Marks
2	Dravya: Etymological derivation, definition, panchbhoutikatwa. Classification of Dravya according to Samhitas and Nighantus Taxonomical classification	6	15
3	Guna: Etymological derivation, definition and Classification of Guna. Detailed knowledge of Gurvadi Guna and Paradi gunas.	5	15
4	Rasa: Etymological derivation, definition, Meaning of "Rasa" in various contexts. Shad Rasas (Madhura, Amla, Lavana, Katu, Tikta, and Kashaya), Panchabhautik constitution of Rasas, Nirvrittivisheshakrama (manifestation in general and particular), Ritu and shad rasa Rasanurasayoh bheda (Difference between rasa and anurasa), Lakshana (characteristics), Guna and Karma of shad Rasas, Kopana and Shamana of Dosha and dushya by Shad rasas. Effects of excess usage of Rasa, Rasopalabhi, Rasaskandha	5	15
5	Vipaka: Etymological derivation and definition, difference between Avasthapaka and Vipaka, Types of Vipaka, (Dvididha-Trividha, Panchavidha) Guna and karma of Vipaka. Grades of Vipaka (taratamya), Vipakopalabhi hetu (Factors to determine Vipaka).	4	15
6	Veerya: Etymological derivation, definition and Swarupa of Virya, Number of Virya.	2	15

Sr. No.	Topic and Description	No. of Lectures Hrs.	Weight age Marks
	(Dwividha & Ashtavidha), Panchabhauthikatva Virya karmani (Effects of Virya), General principles in determination of virya along with exceptions		
7	Prabhava: Definition, Effects of Prabhava Samanapratyayarabdha and Vichitrapratyayarabdha dravyas	2	10
8	Interrelation of Rasa-Guna-Virya- Vipaka-Prabhava with respect to their strength (balabal nirupana).	2	10
9	Karma: Lakshana, swaroopa and bheda of karma (Definition, nature and types of action). Explanation of the following Karmas with examples: 1. Deepana 2. Pachana 3. Samshodhana 4. Samshamana 5. Anulomana 6. Sransana 7. Bhedana 8. Rechana 9. Chhedana 10. Lekhana 11. Grahi 12. Sthambhana 13. Madakari 14. Pramathi 15. Abhishyandi 16. Vyavayi 17. Vikashi 18. Rasayana 19. Vajeekarana 20. Jeevaneeya 21. Balya 22. Brimhana 23. Langhana 24. Medhya.	5	15
10	Brief information on Karmas of dashemani gana of Charak Samhita	10	10
11	Mishraka Gana: 11a) - Audbhida Gana (Vegetable origin) Brihatpanchamoola, Laghupanchamoola, Vallipanchamoola, Kantakapanchamoola, Trinapanchamoola,	4	15

Sr. No.	Topic and Description	No. of Lectures Hrs.	Weight age Marks
	<p>Madhyamapanchamoola, Jeevaneeya panchamoola, Panchapallava, Panchavalakala, Triphala, Trikatu, Trimada, Chaturusana, Panchakola, Shadusana, Chaturbeeja, Jeevaniya gana, Ashtavarga, Trijataka, Chaturajataka, Katuchaturjataka Panchatikta, Amlapanchaka, Chaturbhadra, Trikarshika, Swalpatriphala, Madhuratriphala, Mahavisha, Upavisha, Agrya aushadh varga- Knowledge of Agrayaushadha Varga with example.</p> <p>11 b)- Jangama Gana (Animal origin)- Ksheerashtaka, Mutrashtaka, Pitta panchaka.</p> <p>11 c)- Parthiva Gana (Mineral origin) - Lavana Panchaka, Kshara dvaya, Kshara Ashtaka.</p>		
12	<p>Basis of nomenclature: Basis of nomenclature of dravya, Basis and Derivation of synonyms.</p>	2	5
13	<p>Bheashaja Pariksha vidhi (as described in Charaka samhita vimana sthana 8), Dravya Sangrahana (collection of dravya)- Ecology- Classification of desha (geographical area) and bhumi (soil), swarupa of sangrahaniya dravya of (Nature and quality of drug to be collected). Sangrahana vidhi (Method of collection) -Vegetable and Animal origin drugs according to part used. Period of collection according to virya, samrakshana vidhi (preservation of collected dravyas), bhesajagara (Storehouse), study on different prayojyanga (useful plant parts).</p>	4	10

PAPER - I		PART - B	
14	14 a) Concept of dravya shodhan (purification of dravya). 14 b) Brief knowledge of Apamishran (adulterants) c) Concept of Abhava pratinidhi dravya (substitutes)	4	10
15	Prashasta bhesaja (ideal drug), plant extracts. Concept of viruddha Dravya (incompatibility of the dravya). Anupan Matra vichar, Aushadha sevan kala	5	10
16	Introduction to Nighantu Vigyan - Dhanwantari Nighantu, Bhavaprakashanighantu, Rajanighantu	5	10
17	Brief knowledge of cultivation, conservation of medicinal plants and information about endangered species.	2	5

18	(II) 30 Marks	30	30
	<p>Introduction, Definition and scope of Pharmacology and Principles of general Pharmacology. Brief Knowledge about pharmacology of the following - Anaesthetics, CNS depressants, Sedatives, Hypnotics, Tranquilisers, Antipyretics, Analgesics, Antiepileptics, Antihypertensive, Antianginal, Antiplatelet, Hypolipidaemic, Haemopoetic, Coagulants, Bronchodilators, Aerosols/ Inhalants, Expectorants, Digestants, Carminatives, Antacids, Antiulcer, Laxatives, Antidiarrhoeals, Antiemetic, Hepatoprotective, Diuretic, Antidiuretic, Lithotriptic, Antiinflammatory, Hormonal therapy, Antiobesity, Antidiabetic, Antithyroid, Oxytocic. Galactagogues, Contraceptives, Styptics, Antihistamines, Antimicrobial, Antibiotics, Antimalarial, Amoebicidal, Antifilarial, Anthelmintic, Antifungal, Vitamins, Minerals, Water imbalance and IV fluids, Vaccines, antivenom, antirabbies serum, Local anti septics, drugs in ophthalmic practice, Anti cancer drugs</p>		

PAPER - II MARKS - 100			50
SUBJECT CODE - AA203 - 2			
PART A			
Detailed Knowledge of following drugs with respect to Basonym of drug, Main Synonyms, Regional Name, Botanical Name, Family, Classification of Dravya (Gana) as described in Charak and Sushrut, External morphology, Useful parts, Important phytoconstituents, Rasa panchaka, Action on Dosha, Dhatu, Mala, Prayogarha vyadhi (therapeutic indications), Amayikaprayoga and Matra (Therapeutic administration and Dose), Vishishta yoga (names of important formulations), Vishakta Lakshan (adverse effects), Chikitsopachara (remedial measures) and Shodhana (as required [Alphabetical order and Botanical names to all the drugs are to be added])			50
Agaru	Guggulu	Palasha	
Agnimantha	Haridradvaya	Parpata	
Ahiphena	Haritaki	Pashanabheda	
Amalaki	Hingu	Patala	
Apamarga	Jambu	Pippali-	
Aragvadha	Jatamansi	Pippalimula	
Ardraka-Sunti	Jatiphal	Prishniparni	
Arjuna	Jeerakadvaya	Punarnava	
Arkadvaya	Jyotishmati	Pushkarmoola	
Ashvagandha	Kalamegha	Rasna	
Asoka	Kampillaka	Rasona	
Ativisha	Kanchanara	Rohitaka	
Bakuchi	Kantakari	Saireyaka	
Baladvayam i	Kapikacchu	Sarivadvaya	
Bhallataka	Karkatakshringi	Sarpagandha	
Bharangi	Katuki	Shalaparni	
Bhrungaraj	Karpura	Shallaki	
Bibhitakaa	Khadira	Shalmali	
Bijak / Vijaysar	Kiratatikta	Shatavari	
Kupilu Bitva	Kumari	Shankhapushpi	
Brahmi	<i>Kumkum</i>	Shatavari	
Bruhatai	Kesara	Shigru	
Chandanadvaya,	Kupilu	Shirisha	

Chitraka Dadima Devadaru Dhataki Durva Eladvayam Eranda Gambhari Gokshura Guduchi Dhattur, Dhanyak, Narikel, Kusmand, Karanj Sharpunkha	Kutaja Lavanga Lodhra Madanaphala Mandukaparni Manjishtha Maricha Musta Nagakeshara Nimba Nirgundi	Shyonaka Talisa Patra Tila Trivrut Tulasi Tvak Ushira Vacha Vasa Varahi Varuna Vatsanabha Vidari Vidanga Yastimadhu Yavani		
Part B -			50 marks	
II - Brief Knowledge of following dravyas with Respect to Sanskrit Name, Botanical Name, Family, Habit (Samanya Swarupa), Parts Used and Indications				
Agastya Ajamoda Akarkarabh Amlavetasa Amra Amragandhihari ra Ankola Aparajita Ashvagol Ashvattha Asthishrunthal a Atasi Avartaki Avartani Babbula Badara Bakula	Japa Jati Jayapala Jeevanti Kadali, Kadamba Kaidarya Kakamachi Kamala Kankola Karavellak Karavira Karpasa Kasamarda Kasha Kasni Kataka Katphala Kebuka	Padmaka Palandu Parasika Parijata Parisha Parnabija Parnayavani Parpataka Parushaka Patalagarudi Patha Patola Patranga Pilu Plaksha Prasarani Priyala Priyangu Puga	25	30

Bhumyamalki	Kharjura	Putiha		
Bijapoor	Kitmari	Putranjivaka		
Bola	Kokilaksha	Rajika/		
Chakramarda	Koshataki	Sarshapa		
Champaka	Kulatha	Rohitaka		
Chandrashura	Kumuda	Saptachakra		
Changeri	Kusha	Saptaparna		
Chavya	Kusmanda	Saral		
Chirbilva	Lajjalu	Sarja		
Chopachini	Langali	Shala		
Danti	Latakaranja	Shara		
Darbha	Latakasturi	Sharapunkha		
Dhanvayasa	Madayantika	Shatahwa		
Draksha	Mahanimba	Shati		
Dronapushpi	Mandukaparni	Snuhi		
Gandhaprasari	Markandika	Sringataka		
ni	Masha	Svarnakshiri		
Garjara	Mashaparni	Tagara		
Gojihva,	Matulunga	Tailaparni		
Gorakshaganja	Mayaphala	Talmuli		
Gunja	Meshashrunji	Taruni		
Hinsapa	Methika	Tavakshira		
Hinstra	Mudgaparni	Teja Patra		
Hribera	Mulaka	Tuvaraka		
Hrutpatri	Murva	Udumbara		
Ikshu	Nagabala	Urana		
Indravaruni	Nala	Vatada		
Ingudi	Narikela	Vata		
Irimesha	Nili	Vamsha		
Ishvaku		Vrukshamla		
Isvari		Vrudhadaru		
III - Introduction, Guna, Karma and Uses of following Jantava Dravya (Drugs of Animal Origin). 1. Kasturi 2. Gorochana 3. Mrigasringa			2	10
IV- Introductory Knowledge of Following Annapana Varga: 1. Jala Varga 2. Dugdha Varga 3. Madhu Varga 4. Taila Varga 5. Sukadhanya Varga 6. Shamidhanya Varga 7. Phala Varga 8. Shaka Varga 9. Mansa Varga 10. Aharayogi.			4	10

PRACTICALS

1. Study of Macroscopic, Microscopic characters and Demonstration of organoleptic characteristics and grahyaagrahyatva (20 Marks)

Sr. No	Part use	Dravya	Term	No. of Hrs
1	Stem	Guduchi, or Asthishrunkhala	1 st term	2
2	Leaves	Kumari or Vasa	1 st term	2
3	Flower & its part	Japa, or Dhataki	1 st term	2
4	Fruits	Marich or Madanphal or Vidang	1 st term	2
5	Seed	Kapikachhu or Erand	1 st term	2
6	Bark	Kutaj or Arjun or Ashwatha	1 st term	2
7	Root	Ashwagandha or Punarnava	2 nd term	2
8	Niryas (exudates)	Guggul, Hingu or Mochras	2 nd term	2
9	Jangam dravya	Madhu	2 nd term	2
10	Bhaumic kand (Rhizome)	Ardrak or Haridra	2 nd term	2

2. Records of e- Herbarium sheets of 50 medicinal plants Compulsory, study tour other state/s for field knowledge and procurement of plant species.

COMPILATION:

Practical pt. No-2	Name of practical
1 st term	Identification of Dravyas – Local flora , Herbarium Collection, Study Tour in State
2 nd term	Completion of Journals and Herbarium Record, Compilation

UNIVERSITY PRACTICAL EXAM PATTERN

Spotting- Raw/ Crude Drugs	Spotting Fresh Drugs	Practical	Viva	Practical Record & Compilation	Herbarium	IA	Total marks
20 Marks	20 Marks	20 Marks	60 Marks	20 Marks	20	40 Marks	200 Marks
10 spot for 2 marks Each	10 spot for 2 marks Each	One Practical	Includes Internal and External Marks Combined As Both examiner has to take exam together	10 marks for Practical Journal and 10 marks for Compilation	Fifty Herbarium Sheets		

REFERENCE BOOK LIST

Sr. No.	Book name	Author	Edition	Publication
1	Abhinav Buti Darpan (Vol.1-2)	Vd. Roop Lal Vaishya, Kaviraj Ganpati Singh Verma	2	Choukhamba Bharati academy
2	Aushadha Vigyna Shastra	Acharya Pt. Vishvanatha Acharya Pt. Vishvanath		
3	Bedi Vanaspati Kosha Vol 1-6 Prof.:	Ramesh Bedi:i		Kitabghar Prakashan, 2006
4	Bhaishajyaguna Vigyana	Dr. Alakhnarayan Singh		
5	Bhav Prakash Nigantu (English) Shreekanthamurti	Shreekanthamurti		
6	Ayurvediya Aushadnkarma Vigyna	Bhav Prakash Nighantu Acharya V.J. Thakur		
7	Bhav Prakash Nighantu	Vd. Krishna Chandra Chunekar commentary), Choukhamba Sanskrit pratishthan, 2013	2013	choukhamba Sanskrit pratishthan,
8	Bhrinad dravyagunadarsha Yogaratnakara	Mahendra Kumar Shastri		
9	Classical Uses of Medicinal Plants	Acharya Priyavrata Sharma	1996	choukhamba Publication
10	Controversial Medicinal Plants i	Vd. G. Bapa Lal	2005	Choukhamba orientalia

Sr. No.	Book name	Author	Edition	Publication
11	Shashtra Dalhana Ka Dravyaguna Ke Kshetra Me Yogadana	Vd. Shiv Kumar Vyas		
12	Dravyaguna Kosha	Acharya Priyavrata Sharma	2012	Choukhamba orientalia
13	Dravyaguna Sutram	Acharya Priyavrata Sharma		
14	Dravyaguna Vigyana	Dr. Gyanendra Pandey	edition 3, 2005	Chaukhambha Publication
15	Dravyaguna Vigyana(Vol. 1-2)	Acharya Yadavji Tikramji	2015	Chaukhambha Publication
16	Dravyaguna Vigyana	Vd.V.M.Gogate	4 th ed., 2017	Vidyarthimitra prakshana
17	Dravyaguna Vigyana(Vol. 1-5)	Acharya Priyavrata Sharma	2014	Choukhamba Bharati academy
18	Dravyaguna Shastrum	Vaidya G.A. Phadake		
19	Dravyagunavijnana basic Principles	Prof. D. S. Lucas	2 nd edition (2012)	Chaukhambha visvabharati
20	Dravyaguna Vijyana	Dr. A.P. Deshpande	2006	Proficient, Reprint
21	Forgotten Healers (Indian Medicinal Plants)	Dr. Prakash Pranjape	2012	Choukhamba Sanskrit Pratisthan
22	Glossry of Vegetable Drugs in Bhrित्रayis	Thakur Balwant Singh, Vd. Krishna Chandra Chuneekar	1 ST edition (2015)	Chaukhamba Amarbharti Prakashan;
23	Introduction to Dravyaguna Acharya Priyavrata Sharma	Priyavrata Sharma	1 st edition, 1976	Chaukhamba
24	Materia Medica	Acharya Ghosh,		popular prakashan

Sr. No.	Book name	Author	Edition	Publication
25	Kriyatamka Aushadi Parichaya Acharya Pt. Vishvanath	Acharya Pt. Vishvanath Dwivedi		
26	Nighantu Adarsh (Vol. 1-2) Vd.	Bapa Lal	edition (2016)	Chaukhamba Bharati Academy;
27	Pharmacological basis of Medical Practice	Goodman & Gillman		
28	Pharmacology and Pharmacotherapeu tics	Satoskar Bhandarkar & Ainapure	24 th edition (20July 2015)	Elsevier Health INR
29	Prayogatamaka Dravyaguna Vigyana Dr. Maya Ram Uniyal	Dr. Maya Ram Uniyal	1 st edition 2009	Choukhamba orientalia Vara nasi
30	Priya nighantu Acharya Priyavrata Sharma Chaukhamba 2004	Acharya Priyavrata Sharma	2004	Chaukhamba
31	Raspanchaka/Drav yaguna Siddhanta	Prof. Shivcharan Dhyani		
32	System of Plant Nomenclature in Ayurveda	Dr. Gyanendra Panday	1 st edition 1997	Choukhambasa nskritVaranasi
33	Textbook of Pharmaconogy	Trees & Valis	2nd edition, 2005	CBS publisher,
34	Textbook of Dravyaguna;	Dr.K.Nishteswar	2015 edition	Chaukhamba Surbharati Prakashan;
35	Unani Dravyaguna Vigyana	Vigyana Hakim Daljeet Singh,	2010, 12 th edition	Baidyanath publication
36	Useful parts of Charaka, Sushurut, and Vagbhata			

Sr. No.	Book name	Author	Edition	Publication
37	Uttarakand Ki Vanaspatiya	Dr. Gyanendra Pandey		
38	Vanoaushadi Darshika Thakur Balwant Singh	Thakur Balwant Singh		
39	Vanoaushadi Nidarshika	Dr. Ram Sushil Singh		
40	Vedic Vanaspatiyan	Dr. Dinesh Chandra Sharma		
41	Indian Pharmacopeia, 4 volumes		8 th edition	The Indian pharmacopeia commission 2017
42	Database on medicinal plants all the volums	all the volums of CCRAS	2000	CCRAS publication
43	Aurveda formulary of India – all the volums		2003	Gov. Of India
44	Shodhal Nighantu,	Gyanendra pandey	1 st edition 2009	Choukhamba Krushndas academy
45	Madanpal Nighantu, khemraj shrikrishna das, 2008	Khemraj Shrikrishna Das, 2008	2008	
46	Shaligram Nighantu, Das, kshemraj Shrikrishan, 1923	Das, kshemraj Shrikrishan, 1923	1923	
47	Raj Nighantu,	Satishchandra,	(2012	Chaukhambha
48	Kaideva Nighantu,		1 st edition, 1979	Choukhmba orientalia
49	Dhanvantari Nighantu,	Dr. Amrit Pal singh	2008	Chaukhamba Orientalia
50	Ayurvedic Pharmacopeia of India , Published by Pharmacopoeia		2016	By Pharmacopoeia Commission For Indian

Sr. No.	Book name	Author	Edition	Publication
				Medicine & Homoeopathy Ghaziabad , Government Of India Ministry Of Ayush

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**ROG NIDAN EVAM
VIKRUTI VIDNYAN**

**TITLE OF THE COURSE: - ROGA NIDAN AVUM VIKRUTI
VIDNYAN
COURSE CODE: - AA204
MARKS: - THEORY - PAPER I-100 & PAPER II-100 MARKS – 200
PRACTICAL (VIVA VOCE) – 100 MARKS
TOTAL - 300 MARKS**

INTRODUCTION:

Ayurveda is a system of medicine in the conservative sense of curing disease and it is also the science of life concerned with prevention and cure of diseases. Hence “Nidan Parivarjana” is the primary step for prevention. The study of Nidan should be precise. Now a day, the lifestyle has changed significantly as compared to the ancient times, this promotes turbulence in physical and mental health. So it is necessary to verify the etiological factors of the various new diseases as compared to the Nidan. Current modalities like lab investigation are confirming the diagnosis.

LEARNING OBJECTIVE:

1. To provide UG students comprehensive Knowledge of principles of Ayurvedic diagnosis at clinical and laboratory.
2. Students should gain the knowledge in the subject like unique Ayurvedic ashtavidha examinations in a period of one year.
3. To enhance the knowledge acquisition process for UG’s in Ayurvedic diagnosis along with modern scientific methods.

GOAL:

At the end of the course the U.G student will get thorough knowledge of Basic Principles of Roga Nidan and Vikruti Vidnyan along with clinical diagnosis and investigations.

LEARNING OUTCOME :

COGNITIVE DOMAIN :

1. At the end of the course the candidate should acquire a high standard of theoretical knowledge in nidan panchak, rog and rogi pariksha.
2. The candidate should also gain adequate and up-to-date knowledge of following topics -

- a. The importance of – Dosha Dooshyadi Vigyanam
 - b. fundamentals of Vikruti Vidnyan
 - c. Rognidan, Pariksha Vidhana.
 - d. Vyadhi Vidnyanam .
 - e. Concept of Ashta Mahagada and importance of Rogamarga
3. At the end of the course the candidate should acquire a high standard of theoretical. Knowledge in basic pathology, immunology and infectious diseases.

PSYCHOMOTOR DOMAIN :

1. Execute the practice of Pareeksha Vidnyan
2. Interpret the Diseases of various Srotas
3. Demonstrate Upasargajanya Vyadhi (Communicable diseases)
4. Perform bedside physical examination and history taking by regular observation of the demonstrations and practice on the patients
5. Calibrate various steps involved in performing various laboratory Investigations.

AFFECTIVE DOMAIN :

1. Develop communication skills to take the patients into confidence.
2. Extrapolate to take the patient into confidence for briefing proper history.
3. Valuing high moral and ethical standards while carrying out clinical examination.

PAPER - I	PART- A	MARKS - 50
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COURSE DESCRIPTION :

TERM - I : TOPIC FIRST DOSHA DUSHYADI VIGYANA		
Description	No. of Lectures (Hrs)	Weightage (Marks)
1. Definition and importance of Roganidana.	1	3
2. Samanya Nidana and Samanya Lakshana of Dosha Vriddhi, Kshaya and Prakopa.	1	3
3. Dosha Dhatu Ashraya Ashrayi Bhava.	1	3
4. Dhatu Kshaya Vriddhi Lakshana.	2	5
5. Mala Kshaya Vriddhi Lakshana.	2	5
6. Hetu, Bheda and Lakshana of Agni Dushti.	5	10
7. Definitions and Samanya Lakshana of Ama.	5	10
8. Sama and nirama Dosha, Dushya Lakshana.	1	5
9. Dosha Paka and Dhatu Paka Lakshana.	1	3
10. Concept, classification, diagnosis and general complications of Avarana.	2	5
11. Doshagati and Rogmarga.	2	5
12. Detailed study of Srotomoola and Srotodushti Samanya and Vishishta Hetu Lakshana of all Srotas. Differences between Sroto Dushti and Kha Vaigunya.	5	10

TERM - II : TOPIC SECOND VYADHI VIGYANA		
Description	No of Lectures (Hrs)	Weightage (Marks)
1. Definition, synonyms and classification of Vyadhi and Vyadhi Ghatak.	3	10
2. Criteria for nomenclature of Diseases in Ayurveda (Vyadhinamakarana).	1	3
3. Bija, Bija Bhaga and Bija Bhaga Avayava Dushti.	2	3
4. Basic knowledge of Hereditary, Congenital, Acquired, Multifactorial, Traumatic and Environmental disorders.	1	5
5. Introduction to ICD Classification of Diseases of WHO and DSM classification.	1	3
6. Samanyaja and Nanatmaja Vikara. Nidanarthakara Vyadhi, Hetu Sankara, Lingasankara, Vyadhisankara, Vyadhi Awastha.	2	5
7. Dhatu, Updhatu, Mala and Indriya Pradoshaj Vikara.	2	5
8. Concept of Ashta Mahagada .	4	10
9. Introduction to Ashta Nindita.	3	10
10. Definition and classification of Vyadhikshamatva.	4	10
11. Ojas - types of Ojo Dushti - Visrimsa- Vyapad and Kshaya and It's Diseases.	4	10

TERM - II : TOPIC THIRD BASIC PATHOLOGY		
Description	No of Lectures (Hrs)	Weight age (Marks)
1. Introduction to pathology and its sub-divisions.	2	5
2. Introduction to Cell Injury and Cellular adaptations.	1	5
3. Definition and brief description of inflammation – Healing/repair.	1	3
4. Definition and brief description of edema – shock – hemorrhage, Thrombosis , embolism, Ischemia and Infarction.	4	10
5. Types of Immunity – different types of immune responses in the body – Basic knowledge of auto immune diseases, Acquired immune deficiency disease and hypersensitivity.	3	10
6. Nomenclature and classification of tumors - difference between benign and malignant tumors.	1	5
7. Introduction to Nutritional disorders – disorders of macro and micronutrients.	3	10
8. Introduction to infections.	1	5
9. Introduction and classification of microorganisms such as virus-bacteria-fungus.	2	5
10. Introduction and basic pathology of degenerative disorder	2	5

PAPER - I	PART- B	MARKS - 50
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TERM - I : TOPIC FIRST NIDANA PANCHAKA VIGYANA		
Description	No of Lectures (Hrs)	Weightage (Marks)
1. Difference between Roga and Rogi Pariksha.	2	5
2. Importance of Nidan Panchaka.	2	10
3. Hetu - Definition, Synonyms and Classification.	1	5
4. Purva Rupa – Definition, Synonyms, Samanya and Vishishta Purvarupa.	1	5
5. Rupa - Definition, Synonyms, Samanya and Pratyatma Lakshana. Difference between Vyadhi and Lakshana	2	5
6. Upashaya / Anupashaya– Definition, Types and its importance in diagnosis.	2	5
7. Samprapti – Definition, Synonyms and Type and Samprapti Ghataka.	3	10
8. Shat Kriyakaala. Relationship between Nidana Panchaka and Shat Kriyakaala	3	10
9. Upadrava and Udarka.	1	5
10. Arishta Vigyan – Definition, Types and its importance.	1	3
11. Sadhyasadyatwa – Types, their parameters and importance	1	3
12. General diagnostic principles of AnuktaVyadhi (Ch. Vi. 4).	1	3

TERM - II : TOPIC SECOND PARIKSHA VIGYANA		
Description	No of Lectures (Hrs)	Weightage (Marks)
1. Importance and knowledge of Aptopadeshadi and Darshanadi Trividha, Chaturvidha and Shadvidha Pariksha	2	10
2. Importance and Knowledge of Ashtasthana Pariksha.	2	10
3. Importance and Knowledge of Karanadi Dashavidha Parikshya Bhava.	2	10
4. Importance and Knowledge of Dashavidha Pariksha.	2	10
5. Basic knowledge of ECG, USG, X Ray, CT Scan, MRI.	2	5
6. Importance and knowledge of modern case taking performa	2	5
7. Importance and knowledge of Reflexes, cranial nerve tests, detail joint examination.	2	5

PAPER - II	PART- A	MARKS - 50
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TERM - I		
Systematic Study of Nidana Panchaka of Following Diseases (INCLUDING UPADRAVA, ARISHTA AND SADHYASADHYATA)		
Description	No of Lectures (Hrs)	Weightage (Marks)
DISEASES OF RASAVAHA SROTAS		
1. Jwara (Jwarabheda-Ama, Pachyamana and Nirama Jwara, Agantukajwara, Punaravartaka Jwara, Vishama Jwara, Dhatugata Jwara, Charakokta Sannipata Jwara.	4	10
2. General mechanism of Fever, Introduction to the Aetiopathogenesis of Malaria, Typhoid, Dengue fever, Influenza and Chikungunya, Swine flu	2	5
3. Pandu, Amavata, Hridroga, Shotha	4	10
4. Introduction to Anaemia and its Classification, Rheumatic fever, Rheumatoid Arthritis, Hypertension, Angina, Ischaemic Heart Disease, Myocardial Infarction and CCF.	3	10
DISEASES OF RAKTAVAHA SROTAS		
1. Kamala - Raktapitta - Vatarakta – Kroshtuksheersha - Shitapitta – Maha Kushtha – Visarpa – Shwitra and Introduction to Kshudra Kushtha.	6	10
2. Introduction to Hepatomegaly, Spleenomegaly, Leukaemia, Thalessemia, Sickle cell Anaemia, Hepatatitis A and B	2	5
3. Introduction to Urticaria, Psoriasis, Eczema, Pemphigus, Different types of Herpes, Fungal infections	6	10

Description	No of Lectures (Hrs)	Weightage (Marks)
DISEASES OF MAMSAVAHA SROTAS		
1. Galganda	1	3
2. Introduction to Thyroid disorders	1	5
DISEASES OF MEDOVAHA SROTAS		
1. Sthoulya - Karshya – Prameha.	3	10
2. Introduction to Obesity and Diabetes Mellitus.	2	5
DISEASES OF ASTHI – MAJJAVAHA SROTAS		
1. Vatavyadhi - Akshepaka - Apatanaka - Ardita - Pakshaghata – Gridhrasi –Vishwachi, Avabahuka, - Manyasthambha, Katigraha, Pangutwa	6	15
2. Sandhigataavata, Asthi-Majjagata vata.	2	10
3. Introduction to Osteo- Arthritis, Osteoporosis.	2	5
4. Introduction to Parkinson’s disease, Stroke, Lumbago- Sciatica syndrome, Bell’s Palsy, Cervical- Lumber and Ankylosing Spondylitis, Psoriatic Arthropathy	2	10
DISEASES OF SHUKRAVAHA SROTAS		
1. Introduction to Klaibya and Vandhyatva.	1	10
2. Introduction to male and female infertility.	2	5

PAPER - II	PART- B	MARKS - 50
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TERM – II		
Systematic Study of Nidana Panchaka of Following Diseases (INCLUDING UPADRAVA, ARISHTA AND SADHYASADHYATA)		
Description	No. of Lectures (Hrs)	Weightage (Marks)
DISEASES OF PRANAVAHA SROTAS		
1. Kasa - Shwasa - Hikka-Urahkshata - Shosha -Rajayakshma.	3	10
2. Introduction to the aetiopathogenesis of Pneumonia, Pleural effusion, Bronchitis, Bronchiectasis, Bronchial Asthma.	2	5
DISEASES OF ANNAVAHA – PUREESHAVAHA SROTAS		
1. Agnimandya - Ajirna - Aruchi-Chhardi - Amlapitta- Shoola – Parinama Shoola – Annadrava Shoola- Atisara – Pravahika - Grahani –Gulma- Udara Roga.	3	10
2. Introduction to Anaha, Adhmana, Atopa, Visuchika Alasaka, Vilambika.	2	5
3. Introduction to Peptic Ulcer, Irritable Bowel Syndrome (IBS) Diarrhoea, Dysentery, Constipation, Inflammatory Bowel Diseases, Crohn’s Diseases	2	10

Description	No of Lectures (Hrs)	Weightage (Marks)
DISEASES OF UDAKAVAHA SROTAS		
1. Introduction to Trishna, Daha.	2	5
2. Introduction to water and electrolyte imbalance disorders.	2	5
DISEASES OF MUTRAVAHA SROTAS		
1. Mutrkrichha – Mutraghata.	2	10
2. Introduction to Urinary Tract Infection, Nephropathies,	2	5
3. Introduction and knowledge of Different types of Renal stone	2	5
DISEASES OF MANOVAHA SROTAS		
1. Apasmara, Unmada, Atatwabhinivesha-Vishada, Anidra, Mada, Murchha, Sanyasa.	3	10
2. Introduction to Epilepsy, Depression, Anxiety neurosis.	2	5
UPASARGAJANYA VYADHI (Communicable Diseases)		
1 Romantika - Masurika - Upadamsha-Phiranga.	3	5
2 Introduction to Measels, Chickenpox, Leprosy, Tuberculosis and AIDS.	2	10
KRIMI VIGYANA		
1. Definition, classification of Krimi and features of Krimiroga	3	10
2. Snayuka, Shleepada	1	5
3. Introduction of Filariasis and classification of common parasites.	1	5

PRACTICAL IN ROGNIDAN AVUM VIKRUTI VIDNYAN**MARKS : 100****LIST OF EXPERIMENT:- TERM I**

Sr. No.	Topics	Description	Weightage (Marks)
1.	Fundamental Principles of Laboratory Tests	Introduction to laboratory, Sterilization, glass wares, solutions reagents and safety procedures, Disposal of biomedical wastes.	5
2.	Haematology	1 Haemoglobin estimation. 2 Blood cells counting - WBC, RBC, platelets. 3 Hematocrit /Packed cell volume (PCV). 4 Erythrocyte indices - MCV, MCH, MCHC. 5 Peripheral blood smears, staining technique and differential leucocyte count. 6 Peripheral blood film examination in Anemia, Leukemia, Malaria, Filaria (Demonstration). 7 ESR. 8 Screening tests for bleeding disorders- bleeding time (BT), Clotting time (CT), Demonstration of Prothrombin time (PT). 9 Blood grouping - ABO system, Rh typing (Rhesus system).	40
3.	Urine Examination	1. Ayurveda anusara mutrapariksha. 2. Physical Examination - Volume, Reaction (Ph) & Specific Gravity. 3. Chemical Examination for - Proteins, Glucose, Phosphate, Ketone, Bile salts, Bile pigment.	20

Sr. No.	Topics	Description	Weightage (Marks)
		4. Dipstick examination 5. Demonstration of Microscopic Examination	
4.	Stool Examination	1 Ayurveda anusara purishapariksha. 2 Physical examination, Sama-Nirama Pariksha. 3 Microscopic examination of ova and cyst (Demonstration) 4 Occult Blood Test.	10
Term II			
5.	Demonstration of Sputum Examination	1 Ayurveda anusara sthivanapariksha. 2 Physical, Chemical and Microscopic Examination of the sputum. 3 Sample collection and Demonstration of AFB.	5
6.	Demonstration of Semen examination	1 Ayurveda anusara Retaspariksha. 2 Semen examination	5
7.	Biochemical Examination – (Demonstration)	1 Blood Glucose, Serum Bilirubin, Blood Urea, Lipid Profile, Serum Creatinine, Serum Uric acid etc.	5
8.	Demonstration of different staining techniques in microbiology		5
9.	Demonstration of Sero-immunological Investigations: RA and Widal.		5

LABORATORY RECORD : Maintenance of laboratory record book.

BED SIDE PRACTICAL (CLINICAL METHODS)

1. Introduction and demonstration of clinical methods (General and Systemic Examination).
2. Practical demonstration of examination of Roga based on Pancha Nidana.
3. Demonstration of instruments used for clinical examination.
4. Practical records of clinical examination of at least 20 long cases in I.P.D including Atur-bala-pramana pareeksha.
5. Practical records of clinical examination of at least 20 short Cases based on Ashta vidha pariksha in O.P.D.
6. Demonstration of ECG, USG and Radio imaging techniques.

UNIVERSITY EXAMINATION (Practical) :

Laboratory Practical	Long Case	Short Case	Indentification of Instruments	Practical Record	Viva-voce	Internal Assessment	Total Marks
20	20	10	10	10	10	20	100

REFERENCE BOOKS :

Sr. No.	Books	Auther	Edition
1.	Madhava Nidanam-1	Upadhaya Y	31 st
2.	Madhava Nidanam-2	Upadhaya Y	31 st
3.	Doshakaranatwa Mimansa	Sharma P.V	31 st
4.	Nadi Darshan	Vaidya, Tarashankar	2 nd
5.	Nadi Tatva Darshanam	Vasishthya, Satyadevo	3 rd
6.	Ayurvediya Nidan Evam Chiitsa Ke Siddhant Sidhant-I	Ramharsha Singh	
7.	Tb of Pathology	Harsh Mohan	4 th
8.	T, B. of Pathology	Dey, N. C.	5 th
9.	T.B. of Medical Parasitology	Panikar, J	4 th
10.	Ayurvediy Rog Vijan & Vikruti Vijan-1	Dr. B. S. Byadgi	6 th
11.	Symptoms and Signs of Cli. Medicine	Chamberlain, E. Noble	1 st
12.	Clinical Medicine	Hutchinson	12 th
13.	Bedside Clinics In Medicine - II	Kundu Arup	23 th
14.	Comman Medical Symptoms	Mehta, P.G.	4 th
15.	Clinical Examination	Douglas Graham	6 th
16.	Medical Laboratory Techonology-II	Sood Ramnik	11 th
17.	Principals of Practical of Medicine	Davidson's	6 th
18.	Clinical Diagnosis and Mgt. By Laboratory Methods	Richard, M. C / Curran, C.	22 th
19.	Robbins Basic Pathology	Kumar Abbas	28 th