REVISED ORDINANCE GOVERNING AYURVEDA VACHASPATHI MD(Ay)/AYURVEDA DHANVANTRI MS(Ay) POST GRADUATE DEGREE COURSE IN AYURVEDA

2017

Rajiv Gandhi University of Health Sciences, Karnataka
4th ‘T’ Block, Jayanagar, Bangalore 560041
Revised Ordinance Governing Post Graduate Courses in Ayurveda Vachaspathi MD(Ay)/Ayurveda Dhanwantri MS(Ay) -2017

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The emblem of the Rajiv Gandhi University of Health Sciences is a symbolic expression of the confluence of both eastern and western health sciences. A central wand with entwined Snakes symbolizes Greek and Roman gods of health called Hermis and Mercury adopted as symbol of modern Medical sciences. The pot above depicts Amrutha Kalasham of Dhanvanthri the father of all health sciences. The wing above it depicts human soul called Hamsa (Swan) in Indian philosophy. The rising sun at the top symbolizes olive branches, which is an expression of peace, love and harmony. In Hindu philosophy it depicts the vanaspathi (also called asoushadi) held in the hands of Dhanvanthri, which is annex pression of piece, love and Harmony. In Hindu Philosophy it depicts the Vanaspati (also called as Oushad i) held in the hands of Dhanvantri which are the source of all medicine. The lamp depicts human energy (Kundali). Does script “Devahitham Yadayahu” Inside the lamp taken from Upanishath Shanti Manthram (Bhadram Karnebhi Shrunuyanadenev…) which says “May we live the full span of our lives allotted by god in perfect health” which is the motto of the Rajiv Gandhi University of Health Sciences.
VISION STATEMENT

The Rajiv Gandhi University of health Sciences, Karnataka aims at bringing about a confluence of both Eastern and Western health Sciences to enable the humankind “Live the full span of our lives allotted by God Prefect Health”.

It would strive for achievement of academic excellence by educating and training health professionals who

❖ Shall recognize health needs of community.
❖ Carry out professional obligations ethically and equitably and in keeping with National Health Policy.

It would promote development of scientific temper and Health Sciences Research.

It would encourage inculcation of Social Accountability amongst students, teachers and institutions.

It would support quality assurance of all its educational programmes

MOTTO

“Right for Rightful Health Sciences Education”
NOTIFICATION

Sub: Revised Ordinance pertaining to Ayurveda Vachaspathi MD (Ay) Ayurveda Dhanvanthri MS (Ay) Post Graduate Degree course in Ayurveda as per CCIM guidelines.

Ref: 1) Recommendations of the Faculty of Ayurveda in its meeting held on 22/10/2019
2) Recommendations of the AC in its meeting held on 20/11/2019
3) Minutes of the 146th Syndicate meeting held on 30/11/2019

In pursuance to the decision if the Syndicate in its 146th meeting held on 30/11/2019 and in exercise of the powers conferred under section 35(2) of RGUHS Act, 1994, approval is accorded for implementation of Revised Ordinance pertaining to Ayurveda Vachaspathi MD (Ay) Ayurveda Dhanvanthri MS (Ay) Post Graduate Degree course in Ayurveda as per CCIM guidelines which is annexed herewith.

This ordinance is applicable for 2017-2018 batch onwards.

By Order,

REGISTRAR

Copy to:
1. The Principal Secretary to Governor, Raj Bhavan, Bangalore – 560001
2. The Principal Secretary Medical Education, Health & Family Welfare Dept., M S Building, Dr.B.R. Ambedkar Veedhi, Bangalore – 01
3. The Principals of all affiliated PG Ayurveda medical colleges of RGUHS, Bangalore
4. PA to Vice – Chancellor/PA to Registrar/Registrar (Eva.)/Finance Officer, Rajiv Gandhi University Health Sciences, Bangalore
5. All Officers of the University Examination Branch/ Academic Section.
AYURVEDA VACHASPATHI M.D./AYURVEDA DHANVANTRI M.S.

POST GRADUATE DEGREE COURSE IN AYURVEDA – 2017

(In conformity with “Indian Medicine Central Council (Post-Graduate Education Regulation, 2016 vide The Gazette of India Notification dated Nov 09, 2016)

INTRODUCTION

Revised Ordinance Governing Post Graduate Courses in Ayurveda Vachaspati (M.D. Ayurveda) & Ayurveda Dhanvantri (M.S. Ayurveda) in conformity with “Indian Medicine Central Council (Post-Graduate Regulation, 2016” vide The Gazette of India Notification dated Nov 09, 2016.

Central Council of Indian Medicine, by the Notification published in The Gazette of India on Nov 09 2016, in supersession of the earlier (Post Graduate Education) Amendment Regulations, 2005 and 19th March 2012. In view of this, “Revised Ordinance Governing Post Graduate Courses in Ayurveda Vachaspati (M.D. Ayurveda) & Ayurveda Dhanvantri (M.S. Ayurveda)- 2017” in conformity with “Indian Medicine Central Council (Post-Graduate Regulation, 2016 vide The Gazette of India Notification dated Nov 09, 2016 is notified in this volume. It contains section I, describing regulation pertaining to the PG course. This volume should be read with the earlier regulations i.e., Revised Ordinance Governing Ayurveda Vachaspati MD(Ay)/MS(Ay) PG degree courses in Ayurveda - 2002, and 2006 and 2012 because Goals and Objectives of the course are given in section II, course Description for various subject given in section III, Monitoring Learning Progress given in section 4, Ayurveda Ethics given in section IV, of Revised Ordinance Governing Ayurveda Vachaspati MD(Ay)/MS(Ay) PG degree course in Ayurveda – 2002, 2006 and 2012 continue to be in force.
1) **Title of Course & Post-graduate Specialties**

The post-graduate degrees shall be allowed in the following specialties as under:-

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Name of speciality</th>
<th>Nearest terminology of modern subject</th>
<th>Department in which post-graduate degree can be conducted</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Pre-clinical specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>AyurvedaSamhita evam Siddhant</td>
<td>Ayurveda Samhita and basic principles of Ayurveda</td>
<td>Samhita and basic principles of Ayurveda</td>
</tr>
<tr>
<td>2</td>
<td>Rachana Sharira</td>
<td>Anatomy</td>
<td>Rachana Sharira</td>
</tr>
<tr>
<td>3</td>
<td>Kriya Sharira</td>
<td>Physiology</td>
<td>Kriya Sharira</td>
</tr>
<tr>
<td>(2)</td>
<td>Para-clinical specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dravyaguna Vigiya</td>
<td>Materia Medica and Pharmacology</td>
<td>Dravyaguna</td>
</tr>
<tr>
<td>5</td>
<td>Rasa Shastra evam Bhaishajya Kalpana</td>
<td>Ayurveda Pharmaceuticals</td>
<td>Rasa Shastra evam Bhaishajya Kalpana</td>
</tr>
<tr>
<td>6</td>
<td>Roga Nidanevam Vikrit Vigiya</td>
<td>Diagnostic Procedure and Pathology</td>
<td>RogaNidana evam Vikriti Vigiya</td>
</tr>
<tr>
<td>(3)</td>
<td>Clinical specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Prasuti evam Stri Roga</td>
<td>Obstetrics and Gynecology</td>
<td>Prasuti evam Stri Roga</td>
</tr>
<tr>
<td>8</td>
<td>Kaumarabhritya –Bala Roga</td>
<td>Pediatrics</td>
<td>Kaumarabhritya– Bala Roga</td>
</tr>
<tr>
<td>9</td>
<td>Swasthavritta</td>
<td>Preventive Social Medicine</td>
<td>Swasthavritta and Yoga</td>
</tr>
<tr>
<td>10</td>
<td>Kayachikitsa</td>
<td>Medicine</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>11</td>
<td>Rasayana evam Vajikarana</td>
<td>Rejuvenation and Aphrodisiacs</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>12</td>
<td>Mano Vigiya evam Manasa Roga</td>
<td>Psychiatry</td>
<td>Kayachikitsa</td>
</tr>
<tr>
<td>13</td>
<td>Shalya</td>
<td>Surgery</td>
<td>Shalya Tantra</td>
</tr>
<tr>
<td>14</td>
<td>Shalakya</td>
<td>Diseases of Eye, Ear, Nose, Throat Head, Neck, Oral andDentistry</td>
<td>Shalakya Tantra</td>
</tr>
<tr>
<td>15</td>
<td>Panchakarma</td>
<td>Panchakarma</td>
<td>Panchakarma</td>
</tr>
<tr>
<td>16</td>
<td>Agada Tantra</td>
<td>Toxicology and Forensic Medicine</td>
<td>Agada Tantra.</td>
</tr>
<tr>
<td>17</td>
<td>Yoga *</td>
<td>Yoga</td>
<td>Swasthavritta and Yoga</td>
</tr>
</tbody>
</table>

*MD Yoga in the Department of Swasthavritta and Yoga does not have prescribed syllabus and hence the course is withheld until the syllabus is notified by CCIM.*
2) **Nomenclature of post-graduate degree.** - The nomenclature of post-graduate degree in respective specialties shall be as under:

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Nomenclature of specialty or degree</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Pre-clinical specialty</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ayurveda Vachaspati – Ayurveda Samhita evum Siddhant</td>
<td>M.D. (Ayurveda)- Compendium and Basic Principles</td>
</tr>
<tr>
<td>2</td>
<td>Ayurveda Vachaspati – Rachana Sharira</td>
<td>M.D. (Ayurveda) - Anatomy</td>
</tr>
<tr>
<td>3</td>
<td>Ayurveda Vachaspati – Kriya Sharira</td>
<td>M.D. (Ayurveda) - Physiology</td>
</tr>
<tr>
<td>(2)</td>
<td>Para-clinical specialty</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Ayurveda Vachaspati – Dravyaguna Vigyana</td>
<td>M.D. (Ayurveda) - Materia Medica and Pharmacology</td>
</tr>
<tr>
<td>5</td>
<td>Ayurveda Vachaspati – Rasa Shastreaevam Bhaishajya Kalpana</td>
<td>M.D. (Ayurveda) - Pharmaceuticals</td>
</tr>
<tr>
<td>6</td>
<td>Ayurveda Vachaspati – Roga Nidana evam Vikriti Vigyana</td>
<td>M.D. (Ayurveda) - Diagnostic procedure and Pathology</td>
</tr>
<tr>
<td>(3)</td>
<td>Clinical specialty</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Ayurveda Dhanvantari – Prasuti evam Stri Roga</td>
<td>M.S. (Ayurveda)- Obstetrics and Gynecology</td>
</tr>
<tr>
<td>8</td>
<td>Ayurveda Vachaspati – Kaumarabhritya –Bala Roga</td>
<td>M.D. (Ayurveda)- Paediatrics</td>
</tr>
<tr>
<td>9</td>
<td>Ayurveda Vachaspati – Swasthavritta</td>
<td>M.D. (Ayurveda)- Social and Preventive Medicine</td>
</tr>
<tr>
<td>10</td>
<td>Ayurveda Vachaspati – Kayachikitsa</td>
<td>M.D. (Ayurveda)- Medicine</td>
</tr>
<tr>
<td>11</td>
<td>Ayurveda Vachaspati – Rasayana evam Vajikarana</td>
<td>M.D. (Ayurveda)- Rejuvenation and aphrodisiacs</td>
</tr>
<tr>
<td>12</td>
<td>Ayurveda Vachaspati – Mano vigyana evam Manasa Roga</td>
<td>M.D. (Ayurveda)- Psychiatry</td>
</tr>
<tr>
<td>13</td>
<td>Ayurveda Dhanvantari – Shalya</td>
<td>M.S. (Ayurveda)- Surgery</td>
</tr>
<tr>
<td>14</td>
<td>Ayurveda Dhanvantari – Shalakya</td>
<td>M.S. (Ayurveda)- Diseases of Eye, Ear, Nose, Throat Head, Neck, Oral and Dentistry</td>
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<td>Ayurveda Vachaspati – Panchakarma</td>
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</tr>
<tr>
<td>16</td>
<td>Ayurveda Vachaspati – Agada Tantra</td>
<td>M.D. (Ayurveda)- Toxicology and Forensic Medicine</td>
</tr>
<tr>
<td>17</td>
<td>Ayurveda Vachaspati – Yoga</td>
<td>M.D. (Ayurveda)- Yoga</td>
</tr>
</tbody>
</table>

**Note 1:** The post-graduate degree holder in the old nomenclature, namely, Ayurveda Vachaspati-Ayurveda Siddhant, Ayurveda Vachaspati- Ayurved Samhita, Ayurveda Vachaspati- Kriya Sharir (Dosha-Dhatu-Mala Vigyana) and Ayurveda Vachaspati-Bhaishajya Kalpana as mentioned in Post-graduate Education Regulations, 2005, may be appointed in the concerned department like, holder of Dosha Dhatu Malavigyana in the department of Kriya Sharira, holder of Samhita or Siddhant in the department of Samhita and Basic Principles of Ayurveda, holder of Bhaishajya Kalpana in the...

**Note 2:** The post-graduate degree holder of newly developed speciality, namely, Ayurveda Vachaspati- Yoga as mentioned in these regulations, may be considered for appointment in their corresponding department mentioned under regulations 4 like holder of Yoga in department of Swasthavritta and Yoga.

### 3. Eligibility for Admission

A person possessing the degree of Ayurvedacharya (Bachelor of Ayurveda Medicine and Surgery) from a recognised University or Board or medical institution specified in the Second Schedule to the Act and enrolled in Central or State register of Indian System of Medicine shall be eligible for admission in the post-graduate courses.

Further, sponsored/deputed candidate (Ayurveda Teachers or Physicians) will be required to possess qualification essential for admission.

### 4 Mode of admission

(1) A person possessing the degree of Ayurvedacharya (Bachelor of Ayurveda Medicine and Surgery) from a recognised University or Board or medical institution specified in the Second Schedule to the Act and enrolled in Central or State register of Indian Systems of Medicine shall be eligible for admission in the post-graduat degree course.

(2) The State Government or University concerned shall conduct the admission process.
3. The Selection of candidates shall be made on the basis of final merit index calculated out of total of hundred marks based on eighty per cent. weightage to the Post-graduate entrance test (PGET) and twenty per cent. weightage to the marks obtained in under-graduate course.
4. The Post-graduate entrance test (PGET) of hundred marks shall consist of one common written test of multiple-choice questions covering all the subjects of Ayurvedacharya (Bachelor of Ayurveda Medicine and Surgery) course.
5. The minimum eligibility marks of the entrance test for admission in the case of general candidates shall be fifty per cent of the total marks, in the case of candidates belonging to the Schedule Castes, the Scheduled Tribes and regular Central or State Government service candidate shall be forty per cent. and in the case of candidates belonging to the Other Backward classes shall be forty-five per cent.
6. The sponsored candidates shall also be required to possess the percentage of marks specified in sub-regulations (5).
7. The sponsored foreign national’s candidates shall not be required to possess the percentage of marks specified in sub-regulations (5).
8. Reservation for all categories shall be applicable as per the policy of the Central Government or the concerned State Government.
9. Change of subject shall be permissible within a period of two months from the date of admission, subject to availability of vacancy and guide in the concerned department.

5 Obtaining Eligibility Certificate: No candidate shall be admitted to any Post-graduate degree course in Ayurveda, unless the candidate has obtained and produced eligibility certificate issued by the University. The candidate has to make an application to the University with following documents along with prescribed fee:-

1) B.A.M.S. pass or degree certificate issued by the University.
2) Marks card of all University examinations passed (First to Final year of B.A.M.S. Course)
3) Attempt certificate issued by the Principal.
4) Certificate regarding the recognition of College by CCIM.
5) Completion of internship certificate from a recognized institution.
6) Registration by State of Ayurveda practitioners registration Board/Ayurveda Council.
7) Proof of SC/ST or Category I, as the case may be.

Candidates should obtain the eligibility certificate before the last date for the admission as notified by the University. A candidate who has been admitted to the Post-graduate degree course shall register his/her name in the University within a month after paying the registration fee.

6 Teacher - student ratio: -
(1) The teacher-student ratio shall be such that the number of post-graduate teachers to the number of post-graduate students admitted per year is maintained as 1:3 in case of Professor and 1:2 in case of Reader or Associate Professor.
(2) The teacher student ratio shall be 1:1 in case of Lecturer or Assistant Professor having minimum of five years teaching experience in the concerned Department.

7Duration of course and attendance-

1. The student shall have to undergo study for a period of three years after the admission.

2. The student shall have to attend minimum seventy-five per cent. of total lectures, practicals and clinical tutorials or classes to become eligible for appearing in the examination.

3. The student shall have to attend the hospital and other duties as may be assigned to him during the course of study.

4. The student of clinical subject shall have to do resident duties in their respective departments and student of non-clinical subject shall have duties in their respective departments like Pharmacy or Herbal Garden or Laboratory during the course of study.

5. The student shall attend special lectures, demonstrations, seminars, study tours and such other activities as may be arranged by the teaching departments.

6. The maximum duration for completion of the course shall not exceed beyond the period of six years from the date of admission to the course.

7. Web based centralized biometric attendance system shall be required for the attendance of post-graduate students and manual attendance at department level in which student is pursuing the post-graduate course.

8Method of training:-

1. In the first year of the course, the students shall have to acquire knowledge in the applied aspects of the fundamentals of Ayurveda.

2. Intensive training shall be provided in classical knowledge along with comparative and critical study in the respective specialty.

3. The emphasis shall be given on intensive applied and hands on training.

4. The student shall have to acquire the knowledge about the methods and techniques of research in the respective fields making use of information technology.

5. In clinical subjects, students shall undertake responsibility in management and treatment of patients independently and deal with emergencies.

6. The student shall undertake training in teaching technology and research methods and shall participate
in the teaching and training programs of under-graduate students or interns in the respective subjects during the course of studies.

7 In the clinical training, the student shall have to acquire knowledge of independent work as a specialist.

8 In the specialties of Shalya, Shalakya and Prasuti - Stri Roga, the student shall undergo training of investigative procedures, techniques and surgical performance of procedures and management in the respective specialty.

9 **Medium of Instruction:**
The medium of instruction shall be Sanskrit or Hindi or any recognised regional language

10 **Monitoring Progress of Studies:**
Every candidate shall maintain a work diary and record of his/her participation in training programmes conducted by the department such as journals reviews, seminars, etc. (please see section IV for model checklist and log book specimen copy). The work diary shall be scrutinized and certified by the Head of the Department and head of the institution, and presented in the university practical examination, if called for. Special mention may be made of the presentations by the candidate as well as details of experiments or laboratory procedures conducted by the candidate. The presentation will be assessed by the faculty members and peers using relevant checklist given on section IV.

11 **Vacation:**
There will a vacation of 15 days with stipend at the end preliminary examination only. In addition to the vacation, each student is eligible for 12 days casual leave with stipend. Any leave enjoyed without prior approval or in excess limit mentioned above shall be treated, as willful absence and no stipend will be granted for such period.

12 **Dissertation:**
1 Central Scientific Advisory Post Graduate Committee appointed by Central Council of Indian Medicine shall suggest the areas of Research and topics to be focused every academic year to make campaigning of evidence based Ayurveda to the need of global standards and achieve publications and the same shall be followed by University Committee while approving the Dissertation title.

2 The title of the dissertation along with the synopsis, with approval of the Ethics Committee constituted by the institute as per regulations of concerned recognised University, shall be submitted to the University within a period of six months from the date of admission to the post-graduate course.
3 If the student fails to submit the title of dissertation and synopsis within the period specified under sub-regulation (2), his terms for final post-graduate course shall be extended for six months or more in accordance with the time of submission of the synopsis to the University.

4 The synopsis of the proposed scheme of work shall indicate the expertise and action plan of work of the student relating to the proposed theme of work, the name of the department and the name and designation of the guide or supervisor and co-guide (if any).

The University shall approve the synopsis not later than three months after submission of the synopsis.

5 A Board of Research Studies shall be constituted by the University for approving the title.

6 The University shall display the approved synopsis of dissertation on their website.

7 The subject of every dissertation shall be research oriented, practical oriented, innovative and helpful in the development of Ayurveda system and the subject of the dissertation shall have relation with the subject matter of the specialty.

8 Once the title for dissertation is approved by the Board of Research Studies of the University, the student shall not be allowed to change the title of the proposed theme of work without permission of the University.

9 No student shall be allowed to submit the dissertation before six months of completion of course and the student shall continue his regular study in the institution after submission of dissertation to complete three years.

10 The dissertation shall contain the methods and data of the research carried out by the student on the problem selected by him and completed under the guidance of the guide or supervisor approved by the University.

11 The dissertation shall consist of critical review of literature, methodology, results of the research, discussion on the basis of research findings of the study, summary, conclusion, and references cited in the dissertation shall be suitable for publication.

12 The dissertation shall consist of not less than forty thousand words.

13 The dissertation shall contain, at the end, a summary of not more than one thousand and five hundred words and the conclusion not exceeding one thousand words.

14 The guide or supervisor shall be a person of status of a Professor or Reader or Associate Professor.

15 Lecturer or Assistant Professor having five years University approved teaching experience in the subject concerned shall eligible for guide or supervisor.
16 Five copies of the bound dissertation along with a certificate from the supervisor or guide shall reach the office of the Registrar of the University four months before the final examination.

17 The dissertation shall be assessed by two external examiners and two internal examiners appointed by the University.

18 The dissertation shall be accepted only after the approval of examiners appointed under sub-regulation (17) and in case of disapproval by one external examiner, the dissertation shall be referred to third external examiner approved by the University concerned.

19 If the dissertation is not accepted by two external examiners, the same shall be returned to the student with the remarks of the examiners and the student shall resubmit the dissertation after making necessary improvement in the light of examiners’ report to the University within a further period of six months.

20 The student shall be permitted to appear in the final examination of post-graduate degree course only after approval of the dissertation by the examiners.

21 Inter-disciplinary research may be done by co-opting the guide or supervisor from the concerned specialty.

22 If a para-clinical or pre-clinical subject student takes a thesis topic involving clinical trials then he/she shall work under co-guide of a clinical teacher of the specialty concerned for preparing the thesis.

14 The dissertation should be written under the following headings:

Introduction
Aims and Objectives of study
Review of literature
Methodology (Materials & Methods)
Results
Discussion
Summary
Conclusion
Bibliography/References Annexures

Change of Guide: In the event of a registered guide leaving the college for any reason including
transfer or in the event of death of guide, guide may be changed with prior permission from the university within 3 months.

16 Scheme of Examination

1. Examination and assessment.

(1) The post-graduate degree course shall have two examinations in the following manner, namely:-

(a) The preliminary examination shall be conducted at the end of One academic year after admission;

(b) the final examination shall be conducted on completion of three academic years after the admission to post-graduate course;

(c) examination shall ordinarily be held in the month of June or July and November or December every year;

(d) for being declared successful in the examination, student shall have to pass all the subjects separately in preliminary examination;

(e) the student shall be required to obtain minimum fifty per cent. marks in practical and theory subjects separately to be announced as pass;

(f) if a student fails in preliminary examination, he shall have to pass before appearing in the final examination;

(g) if the student fails in theory or practical in the final examination, he can appear in the subsequent examination without requiring to submit a fresh dissertation;

(h) the subsequent examination for failed candidates shall be conducted at every six months interval; and

(i) the post-graduate degree shall be conferred after the dissertation is accepted and the student passes the final examination.

(2) The examination shall be aimed to test the clinical acumen, ability and working knowledge of the student in the practical aspect of the specialty and his fitness to work independently as a specialist.

(3) The clinical examination shall be judge the competence of the student in Ayurveda and scientific literature of the specialty.

(4) The *viva-voce* part of the practical examination shall involve extensive discussion on any
aspect of subject or specialty.

18 Eligibility for attending the examination

The following requirements shall be fulfilled by every candidate to be eligible to appear for preliminary or final examinations:

I. Every candidate shall fulfill the attendance prescribed by the university during each academic year of the post graduate course.

II. Progress and conduct: every candidate shall have participated in the seminars, journal review meeting, symposia, conference, case presentation, clinics/practicals and lectures during each year as designed by the concerned department.

III. Work diary/log book: every candidate shall maintain a work diary and log book for recording his/her participation in the training program conducted by the department.

IV. The work diary and log book shall be verified and certified by the head of the department and head of the institution (please see section IV for model checklist and log book specimen copy). The certification of satisfactory progress shall be issued by the head of the department.

17 Schedule for Examination – for First year (Preliminary) & Final year PG Course:-

Subjects of examination.-

1 The preliminary examination at the end of one academic year after admission shall be conducted in the following subjects, namely:-

Paper I- Research Methodology and Bio or Medical Statistics;

Paper II- Applied aspects regarding concerned subjects.

1) Final examination shall be conducted at the end of the Three years after commencement of the course as notified in the calendar of events issued by the University.

The university shall conduct two examinations. Not more than two examinations shall be conducted in an academic year.

2) The student shall have to undergo training in the department concerned and shall maintain month-wise record of the work done during the last two years of study in the specialty opted by him as under:-

a) study of literature related to specialty;

b) regular clinical training in the hospital for student of clinical subject;
c) practical training of research work carried out in the department, for student of pre-clinical and para-clinical subject;

d) participation in various seminars, symposia and discussions; and

e) progress of the work done on the topic of dissertation.

3 The assessment of the work done by the students of first year post-graduate course during the first year as specified in sub-regulation (2) shall be done before the preliminary examination.

4 The final examination shall include dissertation, written papers and clinical or practical and oral examination.

5 There shall be four theory papers in each specialty and one practical or clinical and viva-voce examination in the concerned specialty or group of sub-specialties selected by the student for special study.

6 The student shall publish or get accepted minimum one research paper on his research work in one journal and one paper presentation in regional level seminar.

Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

20 Appointment of Examiners:-

(1) The preliminary examination and final examination shall be held in written, practical or clinical and oral examination.

(2) The preliminary examination shall be conducted by a team of two examiners, out of which one examiner shall be external from any other institution and the final examination shall be conducted by a team of four examiners, out of which two examiners shall be external from any other institution.

(3) A teacher with five years teaching or research experience in concerned subject or speciality shall be considered eligible for being appointed as an examiner

(4) For Ist year PG Examination a Research Methodology teacher can opt either research methodology or concerned subject. However he/she can continue to be the examiner for concerned subject for the final year.

21 Criteria for declaring results

- The candidate has to score 50% of marks in Theory and Practical separately to pass in First and Final
Year.

- Above 75% will be declared as Distinction.
- Above 65% and below 75% will be declared as First Class.
- Above 50% and below 65% will be declared as Pass Class.

- **Number of chances for appearing final year examination**

  - Failed students in the preliminary examination should pass in all subjects six months before taking up the final year examination. Otherwise the student shall not be allowed to take up the final year examination.

  - The maximum duration for completion of the course shall not exceed beyond the period of six years from the date of admission to the course.
SECTION III

Syllabus

SYLLABUS FOR POST – GRADUATE COURSE IN AYURVEDA

Preliminary Examination

I. RESEARCH METHODOLOGY AND BIOSTATISTICS 2-10

II. CONCERNED SUBJECT :-

1. AYURVEDA SAMHITA & SIDDHANTA 11-12
2. RACHANA SHARIR 13-14
3. KRIYA SHARIR 15-17
4. DRAVYAGUNA VIGYAN 18-20
5. RASA SHAHTRA & BHAISHAJYA KALPANA 21-24
6. AGADA TANTRA EVUM VIDHI VAIDYAKA 25-27
7. SWASTHAVRITTA 28-30
8. ROGANIDAN EVUM VIKRITI VIGYAN 31-32
9. CHHAYA EVUM VIKIRAN VIGYAN 33-35
10. KAYACHIKITSA 36-37
11. MANOVIGYAN EVUM MANASROGA 38-40
12. RASAYAN & VAJIKARAN 41-42
13. PANCHKARMA 43-44
14. PRASUTI EVUM STRI ROGA 45-46
15. KAUMARBHRITYA-BALA ROGA 47-48
16. SHALYA -SAMANYA 49-51
17. SHALYA - KSHAR EVUM ANUSHASTRA KARMA 52-54
18. ASTHI SANDHI AND MARMAGAT ROGA 55-57
19. SANGYAHARAN 58-59
20. SHALAKYA - NETRA ROGA 60-61
21. SHALAKYA – DANTA EVUM MUKHA ROGA 62-63
22. SHALAKYA- SHIRO-NASA-KARNA EVUM KANTHA ROGA 64-65
Introduction to Research
Definition of the term research
Definition of the term anusandhan
Need of research in the field of Ayurveda
General guidelines and steps in the research process

Selection of the research problem
Literature review: different methods (including computer database) with their advantages and limitations
Defining research problem and formulation of hypothesis
Defining general and specific objectives
Research design: observational and interventional, descriptive and analytical, preclinical and clinical, qualitative and quantitative
Sample design
Collection of the data
Analysis of data.
Generalization and interpretation, evaluation and assessment of hypothesis.
Ethical aspects related to human and animal experimentation.
Information about Institutional Ethics Committee (IEC) and Animal Ethics Committee (AEC) and their functions. Procedure to obtain clearance from respective committees, including filling up of the consent forms and information sheets and publication ethics.
3. Preparation of research proposals in different disciplines for submission to funding agencies taking EMR-AYUSH scheme as a model.

4. Scientific writing and publication skills. 
Familiarization with publication guidelines- Journal specific and CONSORT guidelines. 
Different types of referencing and bibliography.
Thesis/Dissertation: contents and structure
Research articles structuring: Introduction, Methods, Results and Discussions (IMRAD)

5 Classical Methods of Research.
Concept of Pratyakshadi Pramana Pariksha, their types and application for Research in Ayurveda.
Dravya-, Guna-, Karma-Parikshana Paddhati
Aushadhi-yog Parikshana Paddhati
Swastha, Atura Pariksha Paddhati
Dashvidha Parikshya Bhava
Tadvidya sambhasha, vadmarga and tantrayukti

6 Comparison between methods of research in Ayurveda (Pratigya, Hetu, Udaharana, Upanaya, Nigaman) and contemporary methods in health sciences.

PG 1st Year Syllabus-2
7. Different fields of Research in Ayurveda
   Fundamental research on concepts of Ayurveda
Panchamahabhuta and tridosha.
Concepts of rasa, guna, virya, vipak, prabhav and karma
Concept of prakriti-saradi bhava, ojas, srotas, agni, aam and koshtha.
8. Literary Research-

Introduction to manuscriptology: Definition and scope. Collection, conservation, cataloguing.
Data mining techniques, searching methods for new literature; search of new concepts in the available literature. Methods for searching internal and external evidences about authors, concepts and development of particular body of knowledge.
9. Drug Research (Laboratory-based)- Basic knowledge of the following:
Quality control and standardization aspects: Basic knowledge of Pharmacopoeial standards and parameters as set by Ayurvedic Pharmacopoeia of India. Information on WHO guidelines for standardization of herbal preparations. Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP).


11. Introduction to latest Trends in Drug Discovery and Drug Development
-Brief information on the traditional drug discovery process
-Brief information on the latest trends in the Drug Discovery process through employment of rational approach techniques; anti-sense approach, use of micro and macro-arrays, cell culture based assays, use of concepts of systems biology and network physiology
-Brief introduction to the process of Drug development

12. Clinical research:
Introduction to Clinical Research Methodology identifying the priority areas of Ayurveda
Basic knowledge of the following:-
Observational and Interventional studies
Descriptive & Analytical studies
Longitudinal & Cross sectional studies
Prospective & Retrospectives studies
Cohort studies
Randomized Controlled Trials (RCT) & their types
Single-case design, case control studies, ethnographic studies, black box design, cross-over design, factorial design.
Errors and bias in research.
New concepts in clinical trial- Adaptive clinical trials/ Good clinical practices (GCP)
Phases of Clinical studies: 0,1,2,3, and 4.
Survey studies -
Methodology, types, utility and analysis of Qualitative Research methods. Concepts of in-depth
interview and Focus Group Discussion.


PG 1st Year Syllabus-3
PART–B
40 marks
MEDICAL STATISTICS
Teaching hours: 80
1 Definition of Statistics : Concepts, relevance and general applications of Biostatistics in Ayurveda

2 Collection, classification, presentation, analysis and interpretation of data (Definition, utility and methods)

3 Scales of Measurements - nominal, ordinal, interval and ratio scales.
Types of variables – Continuous, discrete, dependent and independent variables.
Type of series – Simple, Continuous and Discrete

4 Measures of Central tendency – Mean, Median and Mode.

5 Variability: Types and measures of variability – Range, Quartile deviation, Percentile, Mean deviation and Standard deviation

6 Probability: Definitions, types and laws of probability.

7 Normal distribution: Concept and Properties, Sampling distribution, Standard Error, Confidence Interval and its application in interpretation of results and normal probability curve.
8 Fundamentals of testing of hypotheses:
Null and alternate hypotheses, type I and type 2 errors.
Tests of significance: Parametric and Non-Parametric tests, level of significance and power of the test, ‘P’ value and its interpretation, statistical significance and clinical significance

9 Univariate analysis of categorical data:
Confidence interval of incidence and prevalence, Odds ratio, relative risk and Risk difference, and their confidence intervals

10 Parametric tests: ‘Z’ test, Student’s ‘t’ test: paired and unpaired, ‘F’ test, Analysis of variance (ANOVA) test, repeated measures analysis of variance

11 Non parametric methods: Chi-square test, Fisher’s exact test, McNemar’s test, Wilcoxon test, Mann-Whitney U test, Kruskall – Wallis with relevant post hoc tests (Dunn)

12 Correlation and regression analysis:
Concept, properties, computation and applications of correlation, Simple linear correlation, Karl Pearson’s correlation co-efficient, Spearman’s rank correlation.
Regression- simple and multiple.

13 Sampling and Sample size computation for Ayurvedic research:
Population and sample. Advantages of sampling, Random (Probability) and non random (Non-probability) sampling. Merits of random sampling. Random sampling methods- simple random, stratified, systematic, cluster and multiphase sampling. Concept, logic and requirement of sample size computation, computation of sample size for comparing two means, two proportions, estimating mean and proportions.

14 Vital statistics and Demography: computation and applications - Rate, Ratio, Proportion, Mortality and fertility rates, Attack rate and hospital-related statistics

15 Familiarization with the use of Statistical software like SPSS/Graph Pad
PG 1st Year Syllabus-4

PRACTICAL 100 marks

I. RESEARCH METHODOLOGY - Teaching hours 120

PRACTICAL NAME

1 Pharmaceutical Chemistry
Familiarization and demonstration of common lab instruments for carrying out analysis as per API

2 Awareness of Chromatographic Techniques
Demonstration or Video clips of following:
Thin-layer chromatography (TLC).
Column chromatography (CC).
Flash chromatography (FC)
High-performance thin-layer chromatography (HPTLC)
High Performance (Pressure) Liquid Chromatography (HPLC)
Gas Chromatography (GC, GLC)

4 Pharmacognosy
Familiarization and Demonstration of different techniques related to:-
Drug administration techniques- oral and parenteral.
Blood collection by orbital plexuses puncturing.
Techniques of anesthesia and euthanasia.
Information about different types of laboratory animals used in experimental research
Drug identification as per API including organoleptic evaluation

5 Pharmacology and Toxicology
Familiarization and demonstration of techniques related to pharmacology and toxicology

6 Biochemistry (Clinical)
Familiarization and demonstration of techniques related to basic instruments used in a clinical biochemistry laboratory – semi and fully automated clinical analyzers, electrolyte analyzer, ELISA-techniques, nephelometry.
Demonstration of blood sugar estimation, lipid profiles, kidney function test, liver function test.

HbA1, cystatin and microalbumin estimation by nephelometry or other suitable techniques.

Interpretation of the results obtained in the light of the data on normal values.

7 Clinical Pathology
Familiarization and demonstration of techniques related to basic and advanced instruments used in a basic clinical pathology lab. Auto cell counter, urine analyzer, ESR, microscopic examination of urine.

8 Imaging Sciences
Familiarization and demonstration of techniques related to the imaging techniques.
Video film demonstration of CT-Scan, MRI-scan and PET-scan.

9 Clinical protocol development

PG 1st Year Syllabus-5
II.   MEDICAL STATISTICS
Practical hours:20

Statistical exercise of examples from Topic number 4, 5, 8-12, 14, 15.
Records to be prepared.

Distribution of marks (practical):
Instrumental spotting test – 20 marks
Clinical protocol writing exercise on a given problem – 20 marks
Records: Research methodology -10 Mark
Medical statistics -10 marks
Viva- Voce -40 Marks

REFERENCE BOOKS:-

Pharmacognosy:
Drug Survey by Mayaram Uniyal
Trease G E and Evans W C, Pharmacognosy, Bailliere Tindall, Eastbourne, U K.

PG 1st Year Syallabus-6
Pharmaceutical chemistry, quality control and drug standardization:
HPTLC- Fingerprint atlas of Ayurvedic Single Plant Drugs mentioned in Ayurvedic Pharmacopoeia Vol- III and IV. CENTRAL COUNCIL FOR RESEARCH IN AYURVEDA AND SIDDHA. New Delhi.

Rangari V.D., Pharmacognosy & Phytochemistry, Vol I, II, Career Publication,
Sharma BK. Instrumental Methods of Chemical Analysis by, Goel Publishing House.
Srivastav VK and Shrivastav KK. Introduction to Chromatography (Theory and Practice)
Sukhdev Swami Handa, Suman Preet Singh Khanuja, Gennaro Longo and Dev Dutt Rakesh (2008). Extraction Technologies for Medicinal and Aromatic Plants -INTERNATIONAL CENTRE FOR SCIENCE AND HIGH TECHNOLOGY- Trieste,
Biochemistry and Laboratory techniques:
Asokan P. (2003) Analytical Biochemistry, China publications,
Harold Varley. Practical Clinical Bio-chemistry
GradWohl, Clinical Laboratory-methods and diagnosis, Vol-I
Satyanarayanan,U. Essentials of Biochemistry, Books and allied(P) Ltd.2002

PG 1st Year Syallabus-7
Research methodology:
Ayurvediya Anusandhan Paddhati – P.V. Sharma
Day R.A. How to write a scientific paper. Cambridge University Press.
Cooray P.G. Guide to scientific and technical writing.
Deepika Chawla and Neena Sondhi. (2011). Research Methods- Concepts and cases. New Delhi:
Vikas Publishing House.


Relevant portions of Ayurvedic Samhitas and other texts

Drug research and development:


http://browse.oecdbookshop.org/oecd/pdfs/free/9740801e.pdf (latest version)

OECD Series on Principles of Good Laboratory Practice (GLP) and Compliance Monitoring, 1998.

Bombay.

14- Ravindran R.: X-Pharm (Software), Indian Journal of Pharmacology, JIPMER, Pondicherry.

PG 1st Year Syllabus-8
Biotechnology and Bio-informatics:


Satyanarayana, U.: Biotechnology, Books and Allied (P) Ltd, Kolkata, 2005


http://www.iitb.ac.in/~crnts
http://www.
zygogen.com.
http://www.dsir.nic.in/reports/tifp/database/metallo.pdf
www.consort-statement.org
www.strobe-statement.org
www.icmr.nic.in

Clinical Evaluation:

CDSCO, Good Clinical Practices For Clinical Research in India, Schedule Y (Amended Version – 2005),
http://cdsco.nic.in/html/GCP1.php

Ethical Guidelines for Biomedical Research on Human subjects. (2000). Indian Council of Medical
Research- New Delhi.
NCI. Clinical Trials Education Series.
http://www.cancer.gov/clinicaltrials/
William C. Scheffer Introduction to Clinical Researchs

PG 1st Year Syllabus-9

Medical Statistics:

Bradford Hill – Basic Medical Statistics
Indrayan. (2008). Basic Methods of Medical Research. AITBS Publishers- India
Mahajan B K, Methods in Bio statistics for medical students, 5th Ed. New Delhi, Jaypee Brothers Medical Publishers
Sundar Rao, Jesudian Richard - An Introduction to Biostatistics.
Suhas Kumar Shetty- Medical statistics made easy

PG 1st Year Syallabus-10
M.D.-AYURVEDA PRELIMINARY

1. AYURVED SAMHITA & SIDDHANTA (Ayurvedic Compendia & Basic Principles)

   PAPER-II
   THEORY- 100 marks

   PART–A
   Practical- Viva-Voce-100
   50 marks
Learning and Teaching methodology available in Samhita- Tantrayukti, Tantraguna, Tantradosha, Tachchilya, Vadamarga, Kalpana, Arthashraya, Trividha Gyanopaya, teaching of Pada, Paada, Shloka, Vakya, Vakyarth, meaning and scope of different Sthana and Chatushka of Brihatrayee.
Manuscriptology - Collection, conservation, cataloguing. Critical editing through collation, receion (A critical revision of a text incorporating the most plausible elements found in varying sources), emendation (changes for improvement) and textual criticism (critical analysis) of manuscripts. Publication of edited manuscripts.
Concept of Bija chatustaya (Purush, Vyadhi, Kriyakaal, Aushadha according to Sushrut Samhita).
Importance and utility of Samhita in present era.
Importance of ethics and principles of ideal living as mentioned in Samhita in the present era in relation to life style disorders.
Interpretation and co-relation of basic principles with contemporary sciences.

PART-B 50 marks

Definition of Siddhanta, types and applied examples in Ayurveda.
Ayu and its components as described in Samhita.
Principles of Karana-Karyavada, its utility in advancement of research in Ayurveda.
Theory of Evolution of Universe (Srishti Utpatti), its process according to Ayurveda and Darshana.
Importance and utility of Triskandha (Hetu, Linga, Aushadh) and their need in teaching, research and clinical practice.
Applied aspects of various fundamental principles: Tridosha, Triguna, Purusha and Atmanirupana, Shatpadarth, Ahara-Vihara. Scope and importance of Pariksha (Pramana).
Importance of knowledge of Sharir Prakriti and Manas Prakriti.
Comparative study of Principles of Ayurveda and Shad Darshanas.

PG 1st Year Syllabus-11

REFERENCE BOOKS:-
1  Charak Samhita Chakrapani commentary
2  Sushrut Samhita Dalhana Commentary
3  Ashtanga Samgraha Indu commentary
4  Ashtanga Hriday Arundutta and Hemadri commentary
5  Vaisheshika Darshan Prashastapada Bhasya
6  Nyaya Darshan Vatsyayan Bhasya Patanjala
7  Yoga Darshan Vyas Bhasya
8  Vedantsara
9  Sarvadarshan Samgraha
10  Bhartiya Darshan Baldev Upadhayaya
11  Ayurved Darshanam Acharya Rajkumar Jain
PG 1st Year Syllabus-12
M.D.-AYURVEDA PRELIMINARY

RACHANA SHARIR (Anatomy)

PAPER-II
Theory 100 marks

PART-A 50 marks
Basic principles of Sharira, Purushavichaya, Rashi Purusha, Karma Purusha (Shad Dhatuj Purusha), Chaturvimshati Purusha, Ek Dhatu Purusha. Relevant principles described in the Sharirasthan of Sushrut Samhita, Charak Samhita, Ashtang Sangrah and Ashtang Hridaya.
Basic principles of Garbha Sharira in Ayurveda: Definitions of Garbha, Shukra Shonita Siddhanta, Dauhrida, Matrijadi Garbhotpattikar bhava.
Types of tissues, histological study of liver, spleen, uterus, kidney, endocrine glands, mammary gland, skin, tongue, lungs, bronchi, bones, muscles, cartilages and nervous tissue.

PART-B 50 marks
Paribhasha Sharira (Anatomical terminology)
Pramana Sharira – Anguli and Anjali Pramana, Sama pramana Sharira, Ayama – Vistara and their prognostic values.
Fundamental aspects of Asthi, Sandhi, Peshi Sharir.
Mrita shodhan (as per Sushruta) and Mrita Samrakshana (preservation method of human cadaver).

PRACTICAL 100 marks

Contents:
Practical study of bones
Practical study of organs
Practical study of surface and radiological anatomy.
Shava Vichhedana – detailed dissection of the whole body.
Practical study of location of Marma
Demonstration of histology slides (10 slides)

PG 1st Year Syllabus-13
Distribution of marks (Practical)

Spotting - 20 Marks
Surface Anatomy - 20 Marks
Dissection - 30 Marks
Imaging Anatomy – Basic Principles and Application - 10 Marks
Viva-Voce - 20 Marks

REFERENCE BOOKS:
Relevant matters of Brihatrayee and Laghutrayee
PratyakshaShariram - Gananath Sen
AbhinavaShariram - Damodar Sharma Gaur
Parishadyam Sabdartha Shariram - Damodara Sharma Gaur
Brihat Shariram - P S Varier
Shiva Samhita
Gray’s Anatomy - Latest Edition
Human Anatomy - B D Chaurasia
Developing Human - Keith L Moore &Persaud
Clinically oriented Anatomy - Keith L Moore
Clinically oriented Neuro Anatomy - Richard Snell
Surface and Radiological Anatomy - Halim
Grant’s Methods of Anatomy - Grant
Grant’s dissector - Grant
Human Embryology - I. B. Singh
Ayuervediya Human Anatomy - G. M. Kanthi
3. KRIYA SHARIR (Physiology)

PAPER-II  Theory 100 Marks
PART-A  50 marks

Theory of Loka-Purusha Samya
Theory of Panchamahabhuta
Physiological aspects of Samanya – Vishesha siddhanta
Concepts of Tridosha and Triguna
Concept of Dhatu
Concept of Mala
Description of Ojas
Process of Ahara Parinama including Aharaparinamakara Bhava and Asta Ahara Vidhi Visesayatana
Physiological importance of Agni, its classification and functions
Dhatuposana theories
Concepts of Atma, Manas and Indriya.
Concepts of Prakriti and Ashtavidha Sara.
Concept of Srotas

PART-B  50 marks

Description of essential and relevant understandings related to contemporary physiology, both general physiology and systemic physiology.
Essentials of cell physiology – organization of cell.
Membrane physiology- transport across cell membrane, action potentials and resting membrane potentials.
Homeostasis- negative and positive feedback mechanisms.
Genetic code, its expression and regulation of gene expression.
Essentials of cardiovascular physiology- cardiac cycle, regulation of heart rate and blood pressure.
Essentials of respiratory physiology- regulation of respiration-chemical and neural, gaseous exchange, transportation of gases.
Gastrointestinal physiology- various digestive juices and their actions, gastrointestinal hormones, enteric nervous system.
Nervous system physiology- ANS, somatic nervous system, reflexes, general and special sensations, higher mental functions, functions of brain, brainstem and spinal cord.

Blood: Blood cells-RBCs, WBCs, platelets, plasma proteins and immunity.

Muscle physiology: properties and mechanisms of contraction of skeletal, cardiac and smooth muscles.

Physiology of excretion- mechanism of urine formation, micturition.

Endocrine physiology: Classification of hormones, hormones secreted by pituitary, thyroid, parathyroid, adrenal glands, pineal, pancreas and their functions.

Study of male and female reproductive system: functions of reproductive hormones.

PG 1st Year Syllabus-15
PRACTICAL 100 marks

Contents:
Ayurvedic practicals
Assessment of Prakriti
Assessment of Sara
Pramana Pariksha
Hematology
Hemoglobin estimation
Total RBC count
Total WBC count
Differential leukocyte count
Packed cell volume (PCV)
ESR
Bleeding time
Clotting time
Blood grouping and Rh typing
Urine examination -
Physical examination- Specific gravity and reaction of urine
Chemical examination
Albumin test
Sugar test
Ketone bodies
Bile salts and pigments
Distribution of marks (Practical)

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

REFERENCE BOOKS:

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

PG 1st Year Syllabus-16

Abhinava Sharir Kriya Vigyana - Dr. Shiv Kumar Gaur
Pragyogik Kriya Sharir - Acharya P.C. Jain
Kaya Chikitsa Parichaya - Dr. C. Dwarkanath
Concept of Agni - Vd. Bhagwan Das
Purush Vichaya - Acharya V.J. Thakar
Kriya Sharir - Prof. Yogesh Chandra Mishra
Sharir Kriya Vigyana - Prof. Jayaram Yadav & Dr. Sunil Verma

Basic Principles of Kriya-Sharir (A treatise on Ayurvedic Physiology) by -Dr. Srikant Kumar Panda
Sharir Kriya – Part I & II - Dr. Ranade, Dr. Deshpande & Dr. Chobhe

Human Physiology in Ayurveda - Dr Kishor Patwardhan

Sharirkriya Vignyan Practical Hand Book - Dr.Ranade, Dr.Chobhe, Dr. Deshpande

Sharir Kriya Part 1&2 - Dr.R.R.Deshapande, Dr.Wavhal

Textbook of Physiology - William Gantong

Review of medical physiology - Chaudhari, Sujit. K.

Essentials Of Medical Physiology - Sembulingam, K.

Concise Medical Physiology - Martini

Fundamental of Anatomy & Physiology - Tortora & Grabowski

Principals of Anatomy & Physiology - Richards, Pocock

Human Physiology - Samson Wrights Applied Physiology, Keele, Neil, joels

Brainstem Control of Wakefulness And Sleep - Steriade, Mirce

An Introduction to Human Physiology - Green, J.h.

Ancient Indian Medicine - Kutumbiah P.

Biographical History of Indian Medicine - Srikanthamurthy KR

Ayurveda Kriya Sharira - Yogesh Chandra Mishra

Textbook of Medical Physiology - Indu Khurana

Tridosha Theory - Subrahmanya Shastri

Statistics in Medicine - K. Syamalan

PG 1st Year Syllabus-17
M.D.-AYURVEDA PRELIMINARY

4. DRAJVAGUNA VIGYAN

(Materia Medica & Pharmacology)

PAPER-II

Theory 100 Marks

PART-A 50 marks
Panchamahabhuta siddhanta, Samanya Vishesha siddhanta, Tridosha siddhanta. Extensive study on classifications of Dravya as described in Brihattrayi.

Applied aspects of Rasa, Guna, Virya, Vipaka and Prabhava
Applied aspects of Aushdha karma with reference to Sharngadhara and Bhavaprakasha
Importance of Namarupa vigyan and concept of basonyms and synonyms of Dravyas
Applied knowledge of Bhaishajya Prayoga (marga, kalpana, matra, anupana, sevan, kala etc.)

PART-B 50 marks
Basic principles of Desha pravichara, Dravya sangrahana (collection), Samrakshan (preservation)
Evolution of Dravyaguna vigyan with special emphasis on Nighantus
Prashasta bhesaj lakshana
Profound knowledge on applied aspects of Agrya aushadha
Methodology of studying controversial, pratinidhi (substitute), apamishrana (adulterant) and unidentified dravya
Pharmacognosy and its relevance in Dravyaguna vigyan
An integrated study of Charakokta Bhesaj pariksha and scientific method of drug evaluation with special reference to quality, safety and efficacy
Brief knowledge and importance of clinical pharmacology
General principles of various good cultivation practices, collection practices, storage practices and manufacturing practices
Pharmacovigilance and ADR issues
Knowledge on the Ayurvedic Pharmacopoeia of India, The Formulary of India and international pharmacopoeias

PRACTICAL 100 marks
Contents:
Field visits for the Identification of important classical medicinal plants (Minimum two visits to neighboring forest areas)
Macroscopic and microscopic identification of minimum two plants of each of prayojyanga (useful parts of plants)
Preliminary study of pharmacopelial standards (API) of minimum 5 plants
Minimum two experiments on Animals
Distribution of marks (Practical)
Herbarium sheets -10 Marks
40
Practical of macroscopic and microscopic identification of prayojyanga (one part of the plant) - 30 Marks

Practical record book of pharamcopoeial standards and animal experimentations - 10 Marks
Spotting - 30 Marks
Viva-voce - 20 Marks

PG 1st Year Syallabus-18

REFERENCE BOOKS:

1 Abhinav Buti Darpan (Vol.1-2) - Vd. Roop Lal Vaishya

2 Aushadna Vigyna Shastra - Acharya Pt. Vishvanatha Dwivedi

3 Ayurvediya Aushadnkarma vigyana -Acharya V.J. Thakur

4 Bedi Vanaspati Kosha-Prof. Ramesh Bedi

5 Bhaishajyaguna Vigyana-Dr. Alakhnarayan Singh

6 Bhav Prakash Nigantu (English)-Shreekanthamurti

7 Bhav Prakash Nighantu-With Vd. Krishna Chandra Chunekar commentary

8 Bhrinad dravyagunadarasha-Mahendra Kumar Shastri

9 Classical Uses of Medicinal Plants-Acharya Priyavrata Sharma

10 Controversial Medicinal Plants-Vd. G. Bapa Lal

11 Dalhana Ka Dravyaguna Shastra Ke Kshetra Me Yogadana-Vd. Shiv Kumar Vyas

12 Dravyaguna Kosha-Acharya Priyavrata Sharma
13 Dravyaguna Sutram-Acharya Priyavrata Sharma

14 Dravyaguna Vigyana-Dr. Gyanendra Pandey

15 Dravyaguna Vigyana(Vol. 1-2)-Acharya Yadavji Tikram Ji

16 Dravyaguna Vijyana-Dr. V.M. Gogate

17 Dravyaguna Vigyana (Vol. 1-5)-Acharya Priyavrata Sharma

18 Dravyaguna Shastrum-Vaidya G.A. Phadake

19 Dravyaguna Vijyana-Dr. A.P. Deshpande

20 Dravyagunavijnana basic Principles-Prof. D.S. Lucas

21 Forgotten Healers (Indian Medicinal Plants)-Dr. Prakash Pranjape

22 Glossry of Vegetable Drugs in Bhrittrayis-Thakur Balwant Singh & Vd. Krishna Chandra Chunekar

23 Introduction to Dravyaguna-Acharya Priyavrata Sharma

24 Kriyatamka Aushadi Parichaya-Acharya Pt. Vishvanath Dwivedi

25 Materia Medica-Acharya Ghosh

26 Nighantu Adarsh (Vol. 1-2)-Vd. Bapa Lal

27 Pharmacological basis of Medical Practice-Goodman & Gillman

28 Pharmacology and Pharmacotherapeutics-Satoskar Bhandarkar & Ainapure

29 Prayogatamaka Dravyaguna Vigyana-Dr. Maya Ram Uniyal
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author(s)</th>
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<tbody>
<tr>
<td>30</td>
<td>Priya nighantu-Acharya Priyavrata Sharma</td>
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<td>31</td>
<td>Raspanchaka/Dravyaguna Siddhanta-Prof. Shivcharan Dhyani</td>
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<td>32</td>
<td>System of Plant Nomenclature in Ayurveda-Dr. Gyanendra Panday</td>
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<td>33</td>
<td>Text Book of Pharmaconogy-Trees &amp; Valis</td>
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<td>34</td>
<td>Textbook of Dravyaguna-Dr.K.Nishteswar</td>
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<td>35</td>
<td>Unani Dravyaguna Vigyana-Hakim Daljeet Singh</td>
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<td>36</td>
<td>PG 1st Year Syllabus-19</td>
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<td>37</td>
<td>Useful parts of Charaka, Sushrut, and Vagbhata.</td>
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<tr>
<td>38</td>
<td>Uttarakand Ki Vanaspatiya - Dr. Gyanendra Pandey</td>
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<td>39</td>
<td>Vanoaushadi Darshika - Thakur Balwant Singh</td>
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<td>40</td>
<td>Vanoaushadi Nidarshika - Dr. Ram Sushil Singh</td>
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<td>41</td>
<td>Vedic Vanaspatiyan - Dr. Dinesh Chandra Sharma</td>
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<tr>
<td>42</td>
<td>Pharmacopia of India – all the volumes</td>
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<td>43</td>
<td>Database on medicinal plants all the volumes of CCRAS</td>
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<td>44</td>
<td>Aurveda formulary of india – all the volumes</td>
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<td>Laghutrayi</td>
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PG 1st Year Syllabus-20

M.D.-AYURVEDA PRELIMINARY

5. RASA SHAASTRA AND BHAISHAJYA KALPANA
(Iatrocemistry & Pharmaceuticals Science)

PAPER-II Theory 100 marks

PART-A 50 marks
Fundamental principles of Rasa Shastra and Bhaishajya Kalpana, introduction to Rasachikitsa, Ashuddha and Apakwa Bhasma- sevan Dosha and its management, introduction to Aushadha Sevan Kaal and Prayoga Marga (routes of administration).
Introduction to basic principles of Aushadha Yoga (formulations).
Classification of Rasa Dravya - concept and relevance.
Introduction to principles of Aushadha Nirmana, concept of Shodhan, Marana, Jarana, Murcchhana, Sattvapatan and Amritikarana.
Concept of Kashaya, Panchavidha Kashaya and other Kalpana.
Concept of Rasashala, Rasa Mandapa with introduction to pharmacy in accordance with the Good Manufacturing Practices (GMP).
Critical study of Rasa Ratnasamuchchaya, Rasendra Chintamani, Rasa Tarangini, Sharngadhara Samhita, Chakradutta and Bharat Bhaishajya Ratnakara with special reference to Aushadha-Nirmana.

PART-B 50 marks
Introduction to methods of analytical, toxicity, experimental and clinical validation of classical and proprietary Ayurvedic formulations.
Introduction to new dosage forms.
Introduction to advance instruments of analysis like XRD, XRF, SEM-E-Dax, ICP analysis,
Chromatography: TLC, gas chromatography, HPTLC, concept of Nanotechnology and its relevance to Aushadha-Nirman.

Concept of Pharmacopoeia and Formulary with introduction of ‘The Ayurvedic Pharmacopoeia of India’ (API) and ‘The Ayurvedic Formulary of India’ (AFI).

Introduction to databases of medicinal plants published by CCRAS, ICMR and others.

**PRACTICAL 100 marks**

**Contents:**

Shodhan, Marana, Amritikarana of Rasa Dravya (10 practicals)

2. Preparation of different dosage forms (10 forms)

3. Pharmacopoeial standards of raw and prepared drugs (20 practicals)

**Raw Materials**

1. Minerals and Metals

   Mineralogical Identification

   Physical form - Crystal and Amorphous

   Hardness on Moh’s scale

   Brittleness test

   Fracture and Cleavage

   Streak test

   Luster

**PG 1st Year Syllabus-21**

2. Plant Material

   Macroscopic and Microscopic examination

   Orgnaoleptic testing

   Estimation of Foreign materials

   Microbial load

   Moisture content

   Determination of ash value - total, water soluble and acid Insoluble ash

   Specific gravity

   Solubility- water and alcohol

   Extract values- water and alcohol

   TLC
Determination of optical density
Refractive index
Aflatoxins
Limit tests for heavy metals
pH estimation
Prepared dosage forms:

1. Solid dosage forms
   Rasaushadhi
   a) Bhasma and Pishti Pariksha
   b) Determination of Particle size
   c) Limit tests for heavy metals
   d) Determination of moisture content, specific gravity, pH and acid value.

Kasthaushadhi
a. Powders (Churna)
   Particle size
   Bulk density
   Solubility
   Estimation of Foreign material
   Microbial load
   Moisture content
   Determination of ash value - total, water soluble and acid insoluble ash
   Solubility - water and alcohol
   Extract values - water and alcohol
   TLC
   Determination of Optical density
   Refractive Index
   Aflatoxins
   Limit tests for Heavy metals
   pH Value estimation

b. Tablets

   Uniformity in weight and size
   Tablet hardness
Tablet friability
Tablet disintegration
Tablet dissolution

c. **Semisolid dosage forms**

Moisture content
Sugar content
Microbial load

**PG 1st Year Syllabus-22**

d. Liquids

pH value
Specific gravity
Determination of refractive index
Acid value
Viscosity
Saponification value
Iodine value

Note:

All practicals should be performed in accordance with Authoritative Text Books of Schedule-I of D.C.Act-1940.

All practicals related to Pharmacopoeial Standards should be performed in accordance with Methods Published in Protocol for testing of ASU Medicines and Laboratory Guidelines for the Analysis of Ayurveda & Siddha Formulations published by Deptt. of AYUSH, Government of India.

**Distribution of marks (Practical)**

<table>
<thead>
<tr>
<th>Practical Record Book</th>
<th>- 10 Marks</th>
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<tr>
<td>Practicals related to Preparation of Drugs</td>
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<tr>
<td>Major practical- one</td>
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<td>Minor practical- one</td>
<td>- 10 Marks</td>
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<tr>
<td>Drug analysis</td>
<td></td>
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<tr>
<td>Major practical- one</td>
<td>- 20 Marks</td>
</tr>
<tr>
<td>Minor practical- one</td>
<td>- 10 Marks</td>
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</tbody>
</table>
Spotting - 10 Marks
Viva-voce - 20 Marks

REFERENCE BOOKS:
Rasahridaya Tantra
Rasarnava
Rasaratna Samuccahaya
Ayurved Prakasha
Rasendrachudamani
Rasendra Chintamani
Rasatarangini
Rasapraksha Sudhakar
Rasamrita
Rasa Chandanshu : CCRAS Publication
Sharangadhara Samhita
Sharangadhara Darpan (BP Pandey)
Bhavaprakasha
Yoga Ratnakara
Bhaishajya Ratnavali
Siddha Bhaishajya Manimala
Bharat Bhaishajya Ratnakara
Rasayoga Sagara
Siddha Bhaishajya Manimala
Sahasrayoga
Siddha Yoga Sangraha – Yadavaji Trikamji Acharya
Vaidyaka Paribhasha Pradeepa

PG 1st Year Syallabus-23
Ayurvediya Aushadhikarana – Puranik and Dhamanakar
Dravyaguna Vijnan Part - 1 and 2 - Yadavji Trikamji
Chakradatta - Ratnaprabha, Relevant Parts from Charaka Samhita, Sushruta Samhita, Kashyapa Samhita, Ashtanga Sangraha, Ashtanga Hridaya,
Remington: Science and Practice of Pharmacy
Theory and Practice of Industrial Pharmacy – Leon Lachman et al
Clinical Pharmacology, KD Tripathi
Clinical Pharmacology, Lawrence Benette
Drug Discovery and Evaluation (Pharmacological assays) HG Vogel
Pharmacological Basis of therapeutics – Goodman and Gilman
Data Base of Medicinal Plants of CCRAS
Quality and Standards of Medicinal Plants – ICMR publication
Quality Control of Ayurvedic Drugs – PLIM, Gaziabad
Ayurvedic Pharmacopeia of India
Ayurvedic Formulary of India
Indian Pharmacopeia
British Pharmacopeia
United States Pharmacopeia
Pharmacopeia Codex
Current Good Manufacturing Practices
Drugs and Cosmetic Act 1940 and Rules 1945 with latest amendments
Drugs and Magic remedies (Objectionable advertisement) Act-1954
Prevention of Food Adulteration (PFA) act
Laws pertaining to Narcotics
Factory and Pharmacy Acts
Consumer Protection Act -1986
Brief information on the peer reviewed journals, official websites and other official search engines along with their links (related with the subject)
Rutleys Elements of Mineralogy
Bhasma Vigyaniyam
Kupipakva Vigyaniyam
Anupana Manjari
PG 1st Year Syllabus-24
M.D.-AYURVEDA PRELIMINARY

6. AGADTANTRA AVUM VIDHI VAIDYAKA
(Toxicology & Forensic Medicine)

PAPER-II Theory 100 marks

PART-A 50 marks

Introduction to Agadatantra, its sequential development, traditional and contemporary toxicology. Examination of poisons as per contemporary and Ayurvedic methods. Ancient and contemporary classification of Visha. Knowledge about Sthavara visha, Jangama visha and Kritrima visha, their clinical and pathological manifestations and management. Garavisha and Dushi visha, signs, symptoms and management with contemporary relevance. Vishajanya Janapadodhvamsaniya Roga (community health problems due to poisons) - environmental pollution, water pollution, soil pollution, air pollution etc, their features and management according to ancient and contemporary concepts. Concept of Viruddhahara with contemporary views. Definition of Vyavahara Ayurveda. Fundamentals of Vyavahara Ayurveda. Courts of law in India and legal procedures. Chathurvinshati upakrama (24 management procedures).

PART-B 50 marks

Madya visha (Alcoholism).
Diagnosis and Management of food poisoning.
General and Emergency medical management of poisoning including preparation, administration and complications of antidotes, antivenoms, antisera.
Management of the toxic manifestations caused by the contact poisons (paduka, vastra, abhushana, mukhalepa- vishabadha etc).
Diagnosis and management of dermatological manifestations of Visha.
Death due to poisoning, duty of physician in poisoning and cases of suspected poisoning.
Post mortem findings in poisoning.

**PRACTICAL 100 marks**

Contents:

Clinical Postings
Case records – 20 cases (Postmortem/ poisoning/dermatological/medico legal cases)
   PG 1st Year Syllabus-25
Distribution of marks (Practical)
Case records (20 Cases) - 20 Marks
Bedside clinical case taking
   Long Case - 20 Marks
   Short Case - 10 Marks
Identification of specimens, models and equipments of jurisprudence importance. - 15 Marks
Spotting related to Visha, Upavisha and other poisonous drugs - 15 Marks
Viva-voce - 20 marks

**REFERENCE BOOKS:**

Useful Portion of Charak-Sushrut-Vagbhata
Dravyaguna Vigyan - Acharya Yadavji
Aushadhirunadharma Shastra - Pt Visvanath Dvivedi
Kriyatmat Aushada parichaya Vigyan - Pt Visvanath Dvivedi
Ayurvedic Vyadhi Vigyan - Acharya Yadavji Trikamji
Madhavanidan with Madhukosha commentary
Sharangadhara Samhita
Yogaratnakara
   Aushadhirunadharma Shastra - PtGangadhara Shastri Gune
Rasendracintamani
Rasaratna samuchhaya
Vishavigyan - Dr. Krishna Kumar
Related matter of Kautilya Artha Shastra
Harmekhlatantra
Anupana manjari
Ayurvedprakash
System of clinical Medicine - Savil
Forensic Pharmacy - B.M. Mhithai
Hand book of Forensic Medicine and toxicology - Dr. P.V. Chadha
Viva Forensic Medicine and toxicology - L.C. Gupta
Forensic Medicine and Ethics - J.P. Narena
Modi’s Medical Jurisprudence and Toxicology
The essentials of forensic medicine and toxicology - Dr. K.S. Narayan Reddy
Medical Laws and Ethics - Dr. H.S. Mehta
M.R.K. Krishnan’s Handbook of Forensic Medicine
Text book of Medical Jurisprudence and Toxicology - Dr. C.K. Parikh
Atlas of Forensic Medicine - Dr. Tomio Watenbe
Medico legal Post Mortems (Atlas) - Dr. Parikh and Others
Textbook of Forensic Medicine and Toxicology - Dr. V.V. Pillay
Textbook of Forensic Medicine and Toxicology - Dr. Karmakar
Textbook of Forensic Medicine and Toxicology - Dr. Singhal
Textbook of Forensic Medicine and Toxicology - Dr. Krishnan Vij
Forensic Pathology - Dr. Bernard Knight
Textbook of Forensic Medicine and Toxicology - Lyon’s
Pocket picture guide to Forensic Medicine - Gower’s Medical Publication
Forensic Medicine - Simpson Knight
Taylor’s Principles and Practical of Medical Jurisprudence - J and A Churchis
Doctor and Law - Singhal
Textbook of Toxicology - Singhal
Medicine Harrison’s Principal of Internal Medicine
Agad Tantra - Dr. Shekhar Namboodri
PG 1st Year Syllabus-26

Modern Medical Toxicology - Dr. V.V.Pillay
Critical care toxicology - Bruent Wallace
Diagnosis and Management of common poisoning- Agarwal wali
Colour Atlas of Forensic Medicine - Govindaiah
Guidelines of poisons - W.H.O.
Doctors patients relationships - Dr.Lavekar

Bhavaprakasha.
Vishavaidya Jyotsnika -- English translation By VPSV Ayurveda college, Kottakkal.

Lakshnamritham.
Toxicology, Ayurvedic perspective - VPSV Ayurveda college, Kottakal
Text book of Agadatantra - Edited By Dr Huparikar, Dr. Joglekar
Agadatantra ki Pathyapustaka - Edited By Dr Huparikar, Dr. Joglekar
Vyavahar Ayurveda Vigyanam - Dr.Indramohan Jha (Sachchan)
Forensic Medicine - Dr. B. Umadathan
Visha Chikitsa - Dr. M. Balakrishnan Nair

Park Text book of Preventive and Social Medicine. - K. Park
Environmental Science and Biotechnology - Theory and Practice
- A.G. Murukesan &C. Rajakumari
Veterinary Toxicology - Dr. Satish K. Gargi
Guide to Drinking Water Quality (3 Volumes) - WHO Publication

PG 1st Year Syllabus-27
M.D.-AYURVEDA PRELIMINARY

7. SWASTHAVRITTA & YOGA
(Preventive, Social Medicine & Yoga)

PAPER-II Theory 100 marks

PART A 50 marks
Importance and relevance of Swasthavritta and Community Medicine. History of community medicine. Concept of health and disease as per Ayurveda and Modern Medicine. Various definitions and dimensions of health as per Ayurveda and World Health Organization.

**PART B 50 marks**


**PG 1st Year Syllabus-28**

**PRACTICAL 100 marks**

Contents:
Duty in OPD and IPD with regard to Pathyapathya, Yoga and Nisargopachar Preparation of different Kritanna Kalpana Practice of the following Pratimarsha Nasya
Anjana
Kavala and Gandusha
Abhyanga Udvartana
Prayogika Dhoomapana
Matra basti

Health awareness lectures to the community (minimum 5)
Participation in observance of National & International days related to health.

Proficiency in performing the following Asanas
Standing Postures- Ardhakatichakrasana, Padahastasana, Ardhachakrasana, Trikonasana.
Sitting postures- Swasthika, Gomukha, Padmasana, Vajrasana, Bhadrasana, shashankasana, Ushtrasana, Pashchimottanasana, Suptavajrasana, Ardhamatsyendrasana, Siddhasana.
Supine Postures- Pavanamuktasana, Sarvangasana, Matsyasana, Halasana, Chakrasana, Shavasana.
Prone postures- Bhujangasana, Shalbhasana, Dhanurasana, Makarasana.

Distribution of marks (Practical)
Records - 20 Marks
Long Procedures - 20 Marks
Short Procedures - 10 Marks
Spotting - Aahar dravyas, Family Planning Devices, Vaccine/Serum and Models/Specimens,
Naturopathic and Yogic specimens etc. - 10 Marks
Yogasana - 20 Marks
Viva-voce - 20 Marks

REFERENCE BOOKS:

Relevant portions of Charak, Sushruta, Vagbhata (AshtangHrudaya), Ashtang Samgraha, Sarangadhara, Bhavaprakasha, Madhavanidan&Yogaratnakara, Bhela Samhita with the respective commentaries
Swasthavritta Samuchaya – VaidyaPtRajesvarDuttaShastri
Swasthya Vigyaana - Dr.B.G.Ghanekarshastri
Prakritika Chikitsa - Kedarnath Gupta
Reddy’s Comprehensive Guide to
Swasthavritta – Dr.P.Sudhakar Reddy
Swastha Vigyan - Dr. Mukundswaroop Verma
Ayurvediya Hitopdesh - Vd. Ranjit Rai Desai
Yoga and Ayurveda - Dr. Rajkumar Jain
Swasthvritta Vigyan - Dr. Ramharsha Singh.

**PG 1st Year Syllabus-29**

Swasthvritta - Dr. Bramhan and Tripathi
Ayurvediya Swasthvritta - Vd. Jalukar
Hathayog Pradipika – Swatmaram Yogendra (Kaivalyadhama)
Yogik Yog Paddhati – Bharatiyaprakrutik Chikitsa Padhat
Yogik Chikitsa - Shri Kedarnath Gupta
Prakrutik Chikitsa Vigyan – Verma
Janasankhyashikshasidhanta evam Upadesa - S.C. Seel
Swasthavritta - Dr. Shivkumar Gaud
Health and Family Welfare - T.L. Devra
Sachitra Yogasan Darshika - Dr. Indramohan Jha
Preventive and Social Medicine - J.K. Park
Yogadeepika - Shri B.K.S. Iyengar
Swasthavritta - Vd. Sakad
Positive Health - Dr. L.P. Gupta
Biogenic Secretes of Food In Ayurveda - Dr. L.P. Gupta
Yoga and Yogikchikitsa - Ramharsha Singh
The Foundation of Contemporary Yoga - R.H. Singh
Yogasidhanta evum Sadhna - H.S. Datar
Patanjal Yoga Sutra – Maharshi Patanjali, Karambelkar
Prakrutik Chikitsa Vidhi - Sharan Prasad
Text book of Swasthavritta - Dr. Ranade, Dr. Bobade, Dr. Deshpande
Gherand Samhita
Bio-Statistics - B.K. Mahajan
Swasthavritta Vidnyan - Dr. Mangala Gauri
Community Medicine - Baride and Kulkarni.
Light on Yoga - Shri. B.K.S. Iyengar
Light on Pranayama - Shri. B.K.S. Iyengar
Light on Patanjala Yogasutra - Shri. B.K.S. Iyengar
Shiva Samhita – Kaivalyadham
Gheranda Samhita – Kaivlyadham
Swasthavritta Vigyan – Vd. Patrikar Vijay
Swasthavritta – Vd Yashwant Patil and Vd. Vhawal
Food and Nutrition – Swaminathan
Preventive and Social Medicine – Mahajan
Preventive and Social Medicine – B.N.Ghosh
Preventive and Social Medicine – Gupta
Yoga and Nisargopachar - Vd. Prama Joshi

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M.D.-AYURVEDA PRELIMINARY

8. ROGA NIDANA AVUM VIKRITI VIGYAN
(Pathology and Diagnostic Procedure)

PAPER-II Theory 100 marks

PART-A 50 marks

Understanding of Samprapti of diseases in Charaka Nidana Sthana in contemporary context
Clinical aspects of Dosha, Dhatu, Upadhatu, Mala, Agni, Ama, Srotas and Indriya
Understanding of the role of Trividha Avasthapaka in the vitiation of Dosha
Concept of Nanatmaja and Samanyaja Vikara
Clinical application of Avarana in diagnosis of various diseases
Clinical application of Shatkriyakala in diagnosis of diseases.
Clinical and applied aspects of concept of Upadrava and Arista

PART-B 50 marks

Ayurvedic interpretation of various laboratory investigations to derive treatment principles.
Interpretation of various Rogi Bala and Roga Bala technique to plan Chikitsa Sutra
Clinical examination of Deha Bala, Roga Bala, Agnibala And Chetas Bala
Knowledge of current diagnostic tools like ECG, X-Ray, CT scan, MRI and USG

**PRACTICAL 100 marks**

**Contents:**
Duty in hospital OPD and IPD.
Duty in pathology laboratory.
Case taking – 25 cases
Performance of pathology and biochemistry practicals – 10 cases
Interpretation of ECG, EEG, X-ray, CT-Scan, MRI and USG

**Distribution of marks (Practical)**

<table>
<thead>
<tr>
<th>Task</th>
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<tr>
<td>Bed side clinical case taking</td>
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<tr>
<td>Long case</td>
<td>20</td>
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<tr>
<td>Short case</td>
<td>10</td>
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<tr>
<td>Laboratory Practicals</td>
<td>20</td>
</tr>
<tr>
<td>Interpretation of ECG, EEG, X-ray, CT-Scan, MRI and USG</td>
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<td>laboratory experiment record</td>
<td>10</td>
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<tr>
<td>Viva-voce</td>
<td>20</td>
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</tbody>
</table>

**REFERENCE BOOKS:**

Madhav Nidan (Madhukosha Commentary)
Relevant portions of Charak Samhita, Sushrut Samhita and Vagbhata
Doshakaranatwa Mimamsa - Acharya P.V. Sharma
Nadi pariksha - Vb Athavale
Nadi Pariksha – - GP Upadhyay
Rogi Pariksha vidhi - Acharya Priyavrata Sharma
Nidan Panchak - Shivcharan Dhyani

**PG 1st Year Syllabus-31**

Vyadhivigyan I and II - Yadav Thrikamji
M.D.-AYURVEDA PRELIMINARY

9. CHHAYA AVUM VIKIRAN VIGYAN
(Imaging and Radio diagnosis)

PAPER-II Theory- 100 marks
PART A 50 marks

Objectives of Chhaya avum Vikiran Vigyan.
History, development and concept of Chhaya avum Vikiran Vigyan
Poorva karma (preparatory measures) related to Chhaya avum Vikiran Vigyan in relation to consultant, technical staff and patients (with their attendants) including counseling and consent.
Review of fundamental principles of Ayurveda.
Shishyopanayanan regarding the Chhaya avum Vikiran Vigyan – introduction of Chhaya avum Vikiran department and hospital unit, guidelines for their use, do’s and don’ts, discipline, duties and responsibilities.
Ethical and legal issues related to Chhaya avum Vikiran Vigyan.
Precautions and preventions in Chhaya avum Vikiran Vigyan unit.
Environmental issues related to Chhaya avum Vikiran Vigyan. Impact of used radiological energies on environment.
Disposing and recycling of radiological materials. Biomedical waste disposal management in Chhaya
avum Vikiran Vigyan.

Management of Chhaya avum Vikiran Vigyan department. Relation between consultant, student, technical staff, patients (with their attendants).

Basic concept of research methodology related to Chhaya avum Vikiran Vigyan.

PART B 50 marks

Preliminary knowledge of various modalities of Chhaya avum Vikiran Vigyan.

Efficiency and limitations of various radiological modalities.

Introduction of surface and applied anatomy, patho-physiology related to Chhaya avum Vikiran Vigyan.

Preliminary knowledge of equipments related to radiology.

Selection of appropriate radiological modalities- basis of selection, correct radiological investigation advice, further assessments and diagnostic advice.

Management of emergencies in radiology section, electrical and mechanical violent emergencies, radiation hazards and its preventive measures.

Pharmacology and application of emergency drugs, analgesics, muscle relaxants, fluids, plasma expanders, oxygen and various contrast media used in Radio-diagnosis and imaging.

Drug and contrast media reactions and shock - its management, cardio-cerebro-pulmonary resuscitation (CCPR), endo-tracheal intubation, tracheostomy.

Anesthesiology related to radiology.

Short review of common diseases, frequently investigated in the Chhaya avum Vikiran Vigyan department especially their clinical findings, anatomical and patho-physiological changes.

Skills of transfer of knowledge- Teaching methodology, audio-visuals preparation and presentations.

Knowledge of Information Technology – relevant to radiology.

Record keeping.

Documentation, books and journals, research paper writing.

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PRACTICAL 100 marks

Contents:
- Evaluation of knowledge of functioning of equipments
- Evaluation of knowledge of Chhaya avum Vikiran Vigyan procedures
- Management of Chhaya avum Vikiran vigyan department
- Management of emergencies in Chhaya avum Vikiran Vigyan unit
- Personality development assessment.
- Basic knowledge of concepts of radiological interpretations

Distribution of Marks (practical):

Case Records of 25 patients 20
Chhaya avum Vikiran Vigyan procedures -
    Long procedure 20
    Short procedure 10
Identification and functioning of instruments and equipments 15
Interpretation of Radiograph and images 15
Viva Voce 20

REFERENCE BOOKS:-

Shusruta Samhita Relevant part
Charak Samhita - do-
Astang Hridaya/Sangrah - do-
Text Book of Radiographic Positioning and Related Anatomy - By Kenneth L Bontrager,
John P Lampignano
Radiographic interpretation to general practitioner -W.H.O.
Procedures in diagnostic Radiology - By T. Doyle, W. have, K.
Thomson.
Radiographic positioning - By Clark
Radiobiology for the Radiologist - By Hall.Christensen’s Physics of
Diagnostic Radiology - By Curry T S, Dowdey J E
, Murry R C
Farr’s Physics for Medical Imaging - By Penelope Allisy-
Roberts, jerry Williams
Fundamental of Diagnostic Radiology - By Brant.
Diagnostic Imaging - By Federle
Diagnostic Imaging - By Peter Armstrong ,
Martin Wastie, Anrea
Rockall
Gastrointestinal radiology - R.L. Eisenberg
Uro-radiology - T.Sherwood, A.J.Davidson, B.Talner
Grainger and Allison’s Diagnostic Radiology - Text book of medical imaging
Text Book in Radiology and Imaging - By D. Sutton.
Introduction to Vascular Ultrasonography - By Zwiebel, Pellerito
Text book in Ultrasonography - By Roumack
Manual of Medical Diagnostic Ultrasonography - By W.H.O. Scientific group.

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Computed Tomography & MRI of the whole body - By Hagga.
Surface and Radiological Anatomy - By A. Halim
X-Ray equipment for student Radiographers - By DN and MO Chesney
Clinical Sonography, A Practical Guide - By Roger C. Sanders, Tom Winter
Ultrasoundography in obstetrics and gynaecology - Calen
Standard Journals like Indian Journal of Radiology, Radiology, Radiological clinics of north America, British Journal of Radiology etc.
Audio-visual aids - CDs & DVDs

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M.D.-AYURVEDA PRELIMINARY

10. KAYACHIKITSA
(General Medicine)

PAPER-II Theory- 100 marks

PART A 50 marks

Understanding of fundamental concepts of Kayachikitsa like Vriddhi and Kshaya of Dosha, Dushya, Mala with Amshaamsha Kalpana. Srotodushti, Khavaigunya, Agni, Ama (Saama and Nirama Dosha, Dhatu & Mala). Aavarana, Rogamarga, Ashayapakarsha, Dosha Gati, Kriyakala. Aushadha Sevana
Kala, Anupana, Pathya-Apathya and their scientific relevance during health and disease.
Principles of Kayachikitsa in disease management including Shodhana, Shamana and Naimittika Rasayana.
Introduction of the basic principles of Modern medicine, Homeopathy, Unani, Siddha, Tibetan Medicine, Yoga and Naturopathy and their relevance in light of the basic principles of Ayurvedic medicine.

**PART B 50 marks**

2. Emergency medicine: Acute Severe Asthma, pulmonary oedema, myocardial infarction, cerebro-vascular accidents, water and electrolyte imbalance, haemorrhage, syncope, seizure, coma, hyperpyrexia, hypertensive encephalopathy.
3. Knowledge of conducting various medical procedures like infusions, tapping, lumbar puncture, Ryle’s tube insertion, catheterization, tractions, water seal drainage, Cardio Pulmonary Ressucitation.
4. Basic knowledge of underlying principles of ECG, TMT, echo cardiology, vascular doppler studies, EEG, EMG, X-Ray, USG, CT scan, MRI, PET and their interpretation.
5. Knowledge of common Ayurvedic formulations and preparations used in treatment:
   Kashaya- Dashamula, Rasnasaptaka, Asanadi, Pathyadi, Phalatrikadi, Punarnavashtaka, Gojivhadi, Mahamanjishthadi, Drakshadi Kashaya.
   Asavas-Arista- Amritarishta, Kanakasava, Chitrakasava, Saraswatarishta, Ashwagandharishta, Chandanasava.

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Vati- Sanjivani, Chandraprabha, Agnitundi, Chitrakadi, Khadiradi, Vyoshadi, Shankha Vati, Shiva Gutika.
Guggula-Kalpana-Triphalaguggula, Kaishoraguggula, Trayodashangaguggula, Simhanadaguggula, Simhanadaguggula,
Yogarajaguggula, Gokshuradi guggula, Kanchanaraguggula.
Taila- Mahanarayana Taila, Pindataila, Prasarinyadi Taila, Ksheerabala Taila, Brihat Saindhavadi Taila, Panchaguna Taila, Amritadi Taila, Marichyadi Taila, Mahamasha Taila.
Ghrita- Mahatriphaladi Ghrita, Brahmi Ghrita, Panchtikta Guggulu Ghrita, Sukumara Ghrita, Dadimadya Ghrita, Kantakari Ghrita, Kalyanaka Ghrita.

**PRACTICAL 100 marks**

Content:-
Daily hospital duties in OPD, IPD and casualty
Bed-side case taking – 25 patients
Distribution of marks (practical):
1. Case records of 25 Patients in detail 20 marks
2. Bedside clinical case taking-
   Long case 20 marks
   Short case 10 marks
3. Medical procedures/laboratory work 15 marks
4. Instruments and spotting 15 marks
5. Viva voce 20 marks

**REFERENCE BOOKS**

Charak Samhita - Cakrapanidutta commentry
Sushrut Samhita - with all available commentaries.
Ashtang Samgraha – Indu commentary
Ashtang Hridaya – Arundutta and Hemadri commentry
Cikitsadarsha - Pandit Rajesvardutta Shastri
Kayachikitsa - Ramaraksha Pathak
Rog Pariksha Vidhi - Priyavrat Sharma
Panchakarma Vigyan - Haridas Sridhar Kasture
Ayurved Nidan Chikitsa Siddhanta - Prof. R.H. Singh.
Kayachikitsa Vol. I-IV. - Prof. Ajay Kumar
Davidson’s Principles and Practice of Medicine.
API Text Book of Medicine.
Harrison’s Text Book of Medicine.
Cecil Text Book of Medicine.
Relevant texts of concerned subjects.

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M.D.-AYURVEDA PRELIMINARY

11. MANO VIGYAN AVAM MANAS ROGA
(Psychiatry)

PAPER-II    Theory- 100 marks

PART A      50 marks

Concept of Manas in Sankhya, Yoga, Nyaya, Vaisheshika, Purva Meemamsa, Vedanta, Bouddha, Tantra and Purana. Philosophical concepts in Ayurveda and its applications.
Basic principles of Ayurveda psychology - Srishti utpatti, Triguna, Loka purusha samya Siddhanta, determination of Purusha according to Dhatubheda, Chikitsadhikrita purusha in a psycho somatic axis, Perception and cognition in Ayurveda. Dosha, Dhatu, Agni, Mala Vigyanam and its psychosomatic importance, ‘Shariramapi Sattvamanavidhiyate Sattvam Cha Shariram’. Concept of Dharma, Artha, Kama and Moksha, concept of Apunarbhava in Ayurveda, Trividha Eshana.
Introduction to psychoanalytical concept – Id, Ego, Super ego. Concept of mind in Western psychology
Psychological Processes – Attention and perception, intelligence, creativity, motivation, emotion, sex and other drives, states of consciousness, learning, memory, cognition and dream, knowledge of developmental psychology.
Understanding of Manasika bhava / Manovikara and their importance in Manasroga Nidana and Chikitsa – Iccha, Dwesha, Sukha, Dukha, Lobha, Moha, Krodha, Shoka, Vilapa, Preeti etc. Emotional aspects of human behaviour.

Manovaha Sroto Nirupana, basics of neurophysiology, neurotransmitters, psychoneuroimmunology, physiological basis in human behaviour, influence of nervous system on human behaviour, sensory systems, autonomic nervous system, study of Ojas, Gyanendriya and Buddhi.

Satvikadi Kayanam samanya gyanam, basic concepts of personality, Sattvabala and mental disorders. Manasroga samanya nidana, Pragyaparadha- samkshipta vivarana. Vibhramsha of Dhee, Dhriti and Smruti, Mano Dosha and Sharir Dosha in psychopathogenesis, Sadvritta and its importance.

Relation of psychology with parapsychology.

PART B 50 marks

Basic understanding of Sattva Pariksha, utility of Trividha, Shadvidha, Ashta Sthana, Dashavidha and Srotopariksha in psychiatric practice, Vikriti pariksha- Vibhrama of Mano -Buddhi- Samgya Gyan-Smriti-Bhatti-Sheela-Cheshta and Achara.

Psychiatric examination- Mental status examination, mini mental status examination, cognitive assessment with higher mental functions, personality and self in psycho analysis, basic psychiatric assessment inventories- Hamiltons scale, Bech’s inventory, GRISS questionnaire, Weschlers’ scale for intelligence.

Clinical psychology – General psychology with schools of psychology, theories of personality development, social dimensions of behavior and current issues, doctor patient relationship, patient interviewing and study of therapeutic relationship. Basic knowledge about anxiety disorders, delusional disorders, phobic disorders, lying, stealing, juvenile delinquency. Mental hygiene and behaviorism.

Technical terms used in psychiatric practice, general symptoms of psychiatric disorders, classification of psychiatric disorders as per DSM and ICD classifications.

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Basic knowledge about organic psychosis, psychoneurosis, Schizophrenia, mood disorders, personality disorders, sexual perversions, sleep disorders and mental retardation.

Basic understanding of Bhuta, Graha and Bhutavidya. Hetu, Lakshana and Samprapti of Unmada, Apasmara, Atattwabhinivesha, Grahavesha, Bhutonmada, Gadodvega, Yoshapasmara, Madatyaya. Nidra and Swapna, its types and role in psychopathogenesis.
Basic understanding of Chikitsa bheda, descriptions of general and specific principles of Kayachikitsa, its practical application in Manasroga, Daivavyapashraya, Yuktivyapashraya, Satvavajaya chikitsa and Dravya-adravya chikitsa, Manodosha Samanya chikitsa, basic treatment principles in Manasika vyadhi, Panchkarma and its application in Manasika roga, Importance of Rasayana and Vajikarana therapies in Psychiatric practice, Medhya rasayana.

General knowledge in the basic management principles of psychiatric disorders in modern medicine. Basic knowledge on psychopharmacology, forensic psychiatry, community psychiatry, liaison psychiatry, child psychiatry and geriatric psychiatry.

Application of psychiatric knowledge in other specialities viz. Kayachikitsa, Agadatantra, Shalya, Shalakya, Prasuti- Stri Roga and Kaumarabhritya.

Psychosomatisi disorders, psychological understanding on essential hypertension, asthma and other allergic disorders, psoriasis, IBS, ulcerative colitis, CAD, tension /vascular headaches, pseudopsychosis, hyperemesis gravidarum, enuresis, diabetes mellitus, obesity, autoimmune disorders, neoplasm and psychosexual disorders.

Basic understanding of diagnostic applications- Haematological, biochemical, serological, histopathological, imaging - ECG, EEG, USG, MRI scan, CT scan, PET scan in psychosomatic, psychiatric and neuro-psychiatric practices.

PRACTICAL 100 marks

Contents:
Daily hospital duties in OPD, IPD and casualty
Practical Record Book
Psychiatric – 5 cases
Psychosomatic – 5 cases
Paediatric / Geriatric Psychiatry – 5 cases
Psychosexual / Substance abuse – 5 cases
Psychiatric Inventories- MMSE, Hamilton Anxiety Depression Rating Scale, Brief Psychiatric Rating Scale, Bech’s Depressive Inventory, Weschlers’ scale, GRISS questionnaire -2 Cases each
Manasa Bhava assessment scales- Sattvabala, Manasa Kaya, Smriti, Buddhi, Raja and Tama rating.
Manas Bhava Pariksha –2 cases each

Distribution of marks (Practical)
Case records of Patients in Detail (25 Cases) - 20 Marks
Bedside clinical case taking
Long case - 20 Marks
Short case - 10 Marks
Procedure - 15 Marks
Instruments & Spotting - 15 Marks
Viva - voce - 20 Marks

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REFERENCE BOOKS:

Related matter of Charak, Sushrut and Vagbhata and other ancient texts with commentaries
Prachhin Manovikara Vigyanm - Ayodhya Prasad Achal
Ayurvediya Padarth Vigyan - Ranjit Rai Deshai
Ayurved Darshan - Acharya Rajkumar Jain
Purusha Vichaya - Prof. V.J. Thakkar
Ayurvediya Manas Vigyan - Prof. Ram Harsh Singh
Yoga evum Ayurved - Acharya Rajkumar Jain
Basic principles of Ayurvediya Padartha Vigyan - Dr Yogesh Chandra Mishra
Synopsis of Psychiatry - Harold kaplon and Benjamin saddock
Oxford textbook of Psychiatry - Michaeal Gerlder, Paul Harrison
General psychology and Abnormal psychology - S.K. Mangal
A text book of Post Graduate Psychiatry - Neeraj Ahuja
Mind in Ayurveda and other Indian Traditions - A.R.V.Murthy
Psychopathology in Indian medicine - Satyapal Gupta
Body- Mind-Spirit Integrative Medicine - Prof. Ram Harsh Singh
Rationale of Ayurveda Psychiatry - Dr. A.R.V. Murthy
Foundations of contemporary Yoga and Yoga Therapy - Prof. Ram Harsh Singh
Stress and its Management - Dr. K.N. Udupa
Concept of Mind - Edited by Prof. C.R. Agnivesh, Kottakkal
Kayachikitsa - Part 3 - R. R. Pathak and Vidhyadhar Shukla
Panchakarma Illustrated - Prof. Shrinivasa Acharya
Unified Dimensions of Ayurvedic Medicine - Dr. J.S. Tripathi
Essential Psychiatry - Bhatia MS
Sahassrayoga - Nishteswar and Vaidyanath
Ayurveda and the Mind - David Frawley
Manasa Roga Vijnana - Balakrishna
Comprehensive Textbook of Psychiatry - Kaplan and Sadock’s
Psychiatry for medical students - Robert J Waldinger
Introductions to Psychology - Morgan / King.

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D.-AYURVEDA PRELIMINARY
12.RASYAN & VAJKARAN
(Rejuvenation & aphrodisia)
PAPER-II Theory- 100 marks

PART A 50 marks

Concept of Bheshaja, classification and understanding of Swasthasya Urjaskara and Artasya Roganut.
Etymology, derivation, definition, synonyms and scope of Rasayana, Vajikarana & Vrishya.
Historical aspects of Rasayana & Vajikarana
Rasayana-Vajikarana Arha & Anarha
Classification of Rasayana & Vajikarana.
Knowledge of Dosha, Dhatu & Mala.
Knowledge of Dhatu Parinamana & Poshana Nyaya.
Detailed knowledge of Shukradhatu, Shukra, Retas, Veerya, Rupadravya, Prashastha Sukra Lakshana, Sukrasaara Purusha.
Knowledge of Sukravahasrotas, Sukradhara Kalaa.
Concept of Ojas.
Knowledge of Prakriti, Sara & Satwa.
Knowledge of concept of Agni: all components of Agni, levels of Agnimandya, Agnimandyajanya Vikara.
Principles of Panchakarma and application in Rasayana & Vajikarana.
PART B 50 marks

Applied anatomical & physiological aspects of male reproductive system.
Applied aspects of physiology of puberty.
Spermatogenesis.
Basics of genetics. Bija and its components.
Applied aspects of reproductive endocrinology.
Semen formation, knowledge of various components of semen.
Basics of applied pharmacology related to Rasayana & Vajikarana.
Knowledge of metabolism and metabolic disorders.
   Basics of Geriatrics.

PRACTICAL 100 marks

Contents:-
Daily hospital duties in OPD, IPD and casualty.
Assessment of Saara – Shukrasaara and Shukra-Asaara – 10 patients.
Rasayan and Vajikarana in geriatric patients – 10 patients.
Semen analysis- Retopariksha – 10 cases.
Uttarbasti – 5 cases.
Technique of psychosexual counseling.
Applied knowledge of assessment scales pertaining to Vajikarana/sexual functions.
Practical aspects of Panchakarma pertaining to Rasayana & Vajikarana.
Distribution of Marks (practical):

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Case records of patients-
(15 case of Rasayana; 10 cases of Vajikarana) 20 marks
2. Bedside clinical case taking-
Long case 20 marks
Short case 10 marks
3. Semen analysis and lab investigations 20 marks
4. Instruments and spotting 10 marks
4. Viva voce 20 marks
70
REFERENCE BOOKS:-

Relevant chapters from Brihatrayee and Laghutrayee and their commentaries
Panchakarma by Prof. H.S. Kasture
Kayachikitsa Vol I & II (Including Panchakarma, Rasayana & Vajikarana) by Prof. RH Singh
Illustrative Panchakarma by Dr Sreenivasa Acharya
Campbell-Walsh Urology by
Alan J. Wein MD PhD (Hon)
Louis R. Kavoussi MD
Andrew C. Novick MD
   Alan W. Partin MD PhD
Clinical Endocrinology 2013 The (Clinical Medicine Series) by MD., CG Weber
Sex and Human Loving -Masters and Johnson
Human reproduction conception and contraception, He fez ESE (ed) Harpar and Row publications, New York
Infertility- Practical guide for the physician, Hommond GM, Talbert LM (eds) Black well scientific publications, Oxford
Rasayana vajeekarana- Darpan by Om prakash Upadhyaya, Soi Balachandra yantralaya, Manavashram, Jaipur
Vatsayana kamasutra
Ananga ranga
Kelikutuhala
Infertility manual by kamini Rao
Advanced infertility management- Mehroo Hansotia
Endocrine and Reproductive systems – Sanders
Proceedings of WHO Symposium on advances in fertility regulation, Moscow: USSR
WHO Laboratory Manual for the examination of semen and sperm. Cambridge Uni. Press
WHO (1973) Reproductive function in the human male. World Health Organization, Geneva(Mannual)
Decision making in infertility; DeCherney AH, Polan ML, Lee RD, Boyers SP (Eds), JP Brothers, New Delhi
Handbook of sexual Dysfunction by Richard Balon, R. Taylor Segraves pub. By Taylor and Francis Group Florida
The Sperm Cell (Production, Maturation, Fertilization, Regeneration) by Christoper J. De Jonge, Christoper L.R. Barratt, Cambridge University Press
Kaplan and Saddocks Synopsis of Psychiatry, Lippincott Williams and Wilkins

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M.D.-AYURVEDA PRELIMINARY

13.PANCHKARMA
(Five Therapeutic procedure)
PAPER-II Theory- 100 marks
PART A 50 marks

Chikitsa and its classifications; Antah-Parimarjana and Bahir-Parimarjana Chikitsa
Principles of Chikitsa, Kriyakal, Shadvidha and Dvividha Upakrama and role of Panchakarma therein.
Applied aspects of Trividha, Shadvidha, Ashta Vidha and Dasha Vidha Pariksha.
Applied anatomy and physiology of cortex, cranial and peripheral nerves. Methods of physical examinations of central nervous system: sensory system, motor examination-muscle power and tone, superficial and deep reflexes, difference of upper and lower motor neuron lesions. Tremors and coordination.
Functions of various single muscles and groups of muscles, applied anatomy and physiology of joints.
Methods of examination of locomotor system. Differential diagnosis of Amavata (rheumatoid arthritis), Vatarakta (gout) and Sandhivata (osteoarthritis). Examination of lumbar and cervical disorders including Gridhrasi (sciatica) and Vishvachi (Brachial neuralgia).
Applied anatomy and physiology of cardiovascular and respiratory systems, functions of capillaries and its permeability. Methods of examination of respiratory and cardiovascular system. Interpretation of spirometry and ECG findings.
Knowledge and method of examination of various skin lesions.
Applied anatomy of stomach, small intestine and large intestine. Detailed examination of gastro-
PART B 50 marks

Definition of Karma. Trividha Karma for Shodhana.

Importance of Panchakarma in health and disease.

Indications and contraindications for Shodhana. Applied aspects of Koshtha and Agni.

Importance of Purva and Pashchata Karma in Shodhana. Parihara Vishaya for Panchakarma.

Samsarjana Krama. General knowledge of various Aushadha and Ahara Kalpana used for Panchakarma.

Areas of research in Panchakarma.

Knowledge of equipments and instruments used in Panchkarma in ancient times and the possible modifications therein now.

Knowledge of quality standards of NABH (National Accreditation Board of Hospitals) for Ayurveda, guidelines for establishment and management of eco-friendly Panchakarma theatre including management of biomedical waste.

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PRACTICAL 100 marks

Duty in Panchakarma ward and theatre.

Performance of 5 Cases each of Snehana, Svedana, Vamana, Virechana, Basti and Nasya with maintaining of detailed record.

Record of detailed examination of 25 patients treated with Panchakarma and effects observed thereon.

Distribution of marks (practical):

| Case records of 25 patients in detail | 20 marks |
| Performance of long Karma | 20 marks |
| Performance of short Karma | 10 marks |
| Panchakarmal procedures | 15 marks |
| Instruments and spotting | 15 marks |
| Viva voce | 20 marks |

REFERENCE BOOKS:
1. Charak Samhita with commentary of Ayurved Dipika by Chakrapanidatta and Jalpakalpa tarubya Gangadhara

2. Sushrutha Samhita with the Nibandha Samgraha commentary of Dalhana and Nyayachandrika panjika of Gayadasa on nidansthana

3. Ashtang Hridaya with Sarvanga sundara and Ayurved rasayana commentaries

4. Ashtanga Sangraha with Shashilekha commentery

5. Bhela Samhita

6. Kashyapa Samhita

7. Bhavaprakasha of Bhavamishra

8. Sharangadhara Samhita

9. Vangasen

10. Gadanigraha

11. Ayurvediya Panchkarma chikitsa

Dr. Mukundilal Dwivedi

12. Panchkarma Vigyan

Dr. Haridas Shreedhar Kasture

13. Illustrated Panchkarma

Dr. G Srinivasa Acharya
14 Ayurveda-Principles and Practice of Panchakarma

Dr. Mandip and Dr Gurdip Singh

15 The Panchkarma Treatment of Ayurved with Kerala Specialities

16 Dr. T.L. Devaraj

17 Panchkarma Therapy

18 Dr. R.H. Singh

19 Principles and practice of vasti

20 Dr. Vasudevan Nampoothiri and Dr. L. Mahadevan

21 Claiton’s Physiotherapy

22 Teddy’s Physiotherapy

23 Harrison’s Principles of Inernal Medicines

24 Guyton’s Physiology

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M.S.-AYURVEDA PRELIMINARY

14. PRASUTI AVUM STRI ROGA
   (Gynecology & obstetrics)

PAPER-II Theory- 100 marks
PART A          50 marks

Concept of Tridosha, Dhatu, Upadhatu, Agni, Pancha Mahabhuta in relation to Prasuti and Stri Roga.
Concept of Artava and Shukra.
Concept of Rasa, Guna, Veerya, Vipak and Karma of Dravya used in Prasuti and Stri Roga.
Action and adverse drug reaction related to commonly used plants and Rasa Aushadhi in Prasuti and Stri Roga.
Concept of Pathya- Apathya in relation to Prasuti and Stri Roga.
Concept of Garbhadhan and Garbha.
Concept of Vrana and Vrana dushti.
Concept of special therapies of Ayurved used in Prasuti and Stri Roga.
Concept of Ashtavidha Shastra Karma, Yantra & shastra used in Prasuti and Stri Roga

PRACTI CAL 100 marks

Applied anatomy and physiology of genito-urinary system, abdomen, pelvis, pelvic floor, anterior abdominal wall, inguinal ligament, inguinal canal, vulva, rectum and anal canal.
Abnormal development, structure and function of female and male urogenital systems
Development, structure and function of placenta, umbilical cord and amniotic fluid.
Physiological and neuro-endocrinal changes during puberty, adolescence and menstruation.
Pre-natal, Natal and Post natal counseling and examination.
Pharmacological study of drugs used in gynaecology and obstetrics.
Knowledge of diagnostic techniques used in gynaecology and obstetrics.
Basic Knowledge of pathological and biochemical investigation used in gynaecology and obstetrics.
Ethics, law and Acts Related to gynaecology and obstetrics – laws of abortion and adoption.
Knowledge of contraception and sterilization procedures.

Pre-operative and post operative care in gynaecology and obstetrics.

PRACTI CAL 100 marks

Contents:
Hospital duties in OPD, IPD, labor room, OT and casualty
History taking and counseling - 25 cases.
Labor cases - observation/performing - 10 cases
Knowledge of instruments required in gynaecology and obstetric practices.
Ayurvedic diagnostic and therapeutic procedures.
Fluid therapy and blood transfusion.
Contraception and sterilizations.

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Pre-operative, operative and post operative procedures.
Distribution of marks (Practical)
Case records of Patients in Detail (25 Cases) - 20 Marks
Bedside clinical case taking
Long case - 20 Marks
Short case - 10 Marks

Procedures - 15 Marks
Identification of instruments, X-ray etc & Spotting - 15 Marks
Viva - voce - 20 Marks

REFERENCE BOOKS:
Related matter from all the samhitas and their commentaries.
Prasuti tantra evum stree roga by prof Tewari P V
Concepts of gynecology Dr Nirmala G Joshi.
Prasuti Tantra Prof. M. Dwivedi
Stree roga vigyan - Dr VNK Usha
Navya prasuti Vigyan Dr Pooja Bharadwaja
Text book of obstetrics- Williums
Text book of obstetrics- D C Dutta
Text book of gynaecology - D C Dutta
Gabbe’s normal and problem pregnancies.
Human embryology by Saddler.
Jeffcoat’s principles of gynaecology
Te linde’s gynaecological surgery.
M.D.-AYURVEDA PRELIMINARY

15. KAUMARBHRITYA - BALA ROGA
(Pediatrics)

PAPER-II Theory- 100 marks

PART A 50 marks

Development of Kaumarbhritya tantra including ancient and modern literature. Strength of Ayurveda specific to child health care.
Vayobheda (Classification of age) according to different classics
Anatomical and physiological differences in child compared to adult.
Ayurvedic consideration of physiology and pathology of Dosha, Dhatu, Mala, Oja, Agni, Prakriti (sharirika-manasika), Kaya and Dhatuposhana in children.
Basic Concepts of growth and development, and its assessment.
Ayurvedic and modern clinical methods of examination of healthy and diseased newborn and children.
Knowledge of modern diagnostic tools like clinical and laboratory investigations, X-ray, USG, MRI etc.
Fundamentals of Ayurvedic treatment for childhood disorders.
Applied pharmacological considerations: Ayurvedic and modern concepts of drug doses, administration, distribution, metabolism, excretion, and other important factors of consideration.
National programs related to pediatrics.
Childhood Samskara
Principles of Child Psychology (Ayurvedic & modern concepts)

PART B 50 marks

Concept of Bala Rasayana and its application in physical and mental health of children.
Concept of Vyadhi-Kshamatva avam Vardhanopaya. Concept of immunity and immune enhancing measures including immunization.
Concept of Dhupana and Raksha karma and their clinical application in pediatric practice
Basic concepts of single drugs commonly used in pediatric practice with special reference to their karma like Guduchi, Yastimadhu, Mandukaparni, Shankhapushpi, Ativisha, Pippali, Maricha, Shunti, Haritaki, Amalaki, Tulasi, Bhumyamalaki, Daruharidra, Haridra, Vidanga, Katuki, Dadima, Brahmi, Ashvagandha, Shatavari, Bala, Kampillaka, Trivrita, Jyotishmati, Vacha, Jeevanti, Rasna, Shatavari, Anantamula (Krishna Sariva), Durva, Khadir, Tankana, Tambula, Jamtamsi, Sphatika.

Knowledge of their ingredients, indications, precautions and specific considerations including adverse drug reactions (ADR) of commonly used Ayurvedic formulations in pediatric practice e.g. Aravindasava, Baalachaturbhodra Churna, Kumarakalyana Rasa, Saraswatarista, Swarnaprasashana (Kashyapa Samhita), Kumaryasava, Kushmanda Rasayana (Sharangdhar), Ashvagandha Rasayana (Ashtanga Hridaya), Brahmi Ghrita, Kalyanaka Ghrita, Talishadi Churna, Sitopaladi Churna, Haridra Khanda, Krimikuthara Rasa, Mugdha Rasa, Dantodbheda-Gadantaka Rasa, Rajanyadi Churna (Ashtanga Hridaya), Samvardhana Ghrita, Ashta Mangal Ghrita.

Methods of preparation of various specific Kalpana (e.g. Lehya, Syrup, drops etc.) according to needs of children.

Common instruments and their application in new born care and general pediatric practice.

Specific considerations in research methods related to Pediatrics.

Regulatory laws related to child health management.

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PRACTICAL 100 marks

Contents:

a) In-patient case history record -(25 Patient)

b) Child Health record -(50 Case)

Involvement in Outreach and National programs:

School Child health checkup
Adolescent education
Adolescent counseling etc
Pediatric ward/nursery management.

Distribution of marks (Practical)

a) Case History Record -(25 Patient) - 10 Marks

b) Child Health record -(50 Case) - 10 Marks
Bed side clinical case taking

1. Long Case - 20 Marks
2. Short Case - 10 Marks
3. Procedures/ Kriya Kalpa - 15 Marks
4. Identification of instruments & Spotting - 15 Marks
5. Viva-voce - 20 Marks

REFERENCE BOOKS:

Kashyapa Samhita Complete Hindi translation by Satyapal Vidhyalankara English translation by Prof. Premvati Tiwari
Principles & practice of Pediatrics in Ayurveda: CHS Shastry
Child Health Care in Ayurveda: Abhimanyu Kumar
Ayurvedic Concepts of human Embryology: Abhimanyu Kumar
Kaumarbhritya by Prof. D.N. Mishra
Kaumarbhritya Ke Antargata Balgraho Ka Kramika Evam Vaigyanika Adhyana by Prof. Chanchal Sharma
Notes on Kaumarbhritya-by Dr. Dinesh K S
Pran - Pratyagamanam-by Dr. B.M. Singh
Ayurveda Dwara Matra Evam Shishu Paricharya by Dr. KS Patel, V.K. Kori & Rajgopal S.
Kaumarbhritya related references from Charaka Samhita, Sushruta Samhita Vagbhata etc.
Clinical Methods in Paediatrics by Meharban Singh
Pediatrics Emergencies by Meharban Singh
Essential Pediatrics O.P. Ghai
Text Book of Pediatrics Nelson
Care of New Born by Meharban Singh
M.S.-AYURVEDA PRELIMINARY

16.SHALYA TANTRA – SAMANYA
(General Surgery)
PAPER-II Theory- 100 marks

PART A 50 marks

Etymology and definition of Shalya Tantra.
Scope and importance of Shalya Tantra.
Study of Sushruta Samhita Sutra Sthana.
Study of modern surgical clinical methodology.
Applied anatomy, physiology and surgical pathology of common surgical conditions including relevant Ayurvedic aspect.
Applicability of Shat Kriyakala in the pathogenesis of surgical diseases.
Applicability of Prakriti in understanding the causes and role of treatment in surgical diseases.
Applicability of basic principles of Ayurveda in Rogi Pariksha (Trividha, Shadvidha, Ashtavidha and Dashavidha Pariksha) and latest investigations.
Concept of Rakta according to Sushruta.
Concept and applicability of Sadhya-Asadhya (Prognosis) - Arishtha lakshana.
Knowledge of life saving drugs.
Emergency conditions and its management.
Diagnosis and management of Pranashtha Shalya.

PART B 50 marks

Yantra and Shastra – Surgical Instruments - Ancient and recent advances.
Sterilization – methods and types.
Basic knowledge of Sangyaharan – Anaesthesia - Types, methods, indications, contraindications, complications and its management.
Concept of Trividha Karma – Purva, Pradhana and Pashchat.
Ashtavidha Shastra Karmas.
Bandhana Karma – Ancient and recent advances.
Kshara Karma – Introduction, types, method of various preparations like Kshara, Kshara Varti, Kshara Pichu and applications.
Kshara Sutra – Method of preparation, standardization and applications.
Agnikarma – Introduction, types and applications.
Raktamokshana – Introduction, types and applications.
Application of Panchakarma therapy in surgical practice.
Scope of Pathya-Apathya in the management of surgical diseases.

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PRACTICAL 100 marks

Content:-
Hospital duties in OPD, IPD, OT and casualty
Case record – 25 cases
Surgical cases - observation/performing- 10 cases
Knowledge of instruments required in surgical practices.
Ayurvedic diagnostic and therapeutic procedures.
Fluid therapy and blood transfusion.
Contraception and sterilizations.
Pre-operative, operative and post operative procedures.
Distribution of marks (practical):
1. Case records of 25 Patients in detail 20 marks
2. Bedside clinical case taking-
   Long case 20 marks
   Short case 10 marks
3. Identification of instruments, X-ray etc 15 marks
4. Medical procedures 15 marks
5. Viva voce 20 marks
REFERENCES BOOKS:
Sushruta Samhita
Ashtanga Sangraha
Ashtanga Hridaya
Charaka Samhita
The Surgical instruments of the Hindus - Girindranath Mukhopadhyaya
Shalya Tantra Samuchchaya - Pandit Ramadesh Sharma
Shalya Vigyan (Part 1-2) - Dr. Surendra Kumar Sharma
Shalya Samanvaya (Part 1-2) - Vd. Anantaram Sharma
Shalya Pradeepika - Dr. Mukund Swaroop Verma
Soushruti - Dr. Ram Nath Dwivedi
Clinical Shalya Vigyan - Dr. Akhilanand Sharma
Bhagna Chikitsa - Dr. Prabakar Janardhan Deshpande
Kshara sutra management in anorectal ailments - Dr. S.K. Sharma, Dr. K.R. Sharma
and Dr. Kulwant Singh.
Anorectal diseases in Ayurveda - Dr. Sizoria and Dr. Praveen Kumar Chowdary.
Adhunika Shalya Chikitsa Siddanta - Dr. Katil Narshingham Udupa
Agnikarma Technology Innovation - Dr. P.D. Gupta
Shalya Tantra Ke Siddhant - Dr. K.K. Takral
Recent advances in the management of
Arshas /Haemorrhoids - Dr. P. Hemantha Kumar
Arsha Evum Bhagander Mein sutra Avacharan- Vd. Kanak Prasad Vyas
Recent advances in Kshara Sutra - Dr. M. Bhaskar Rao
Leech application in Ayurveda - Dr. M. Bhaskar Rao
Kshara Sutra - Dr. S.N. Pathak
Shalya Shalakya Tantra - Vd. S.G. Joshi
Surgical ethics of Ayurveda - Dr. D.N. Pande
Text book of Surgery - Sabistan
Operative Surgery – Rob and smith
PG 1st Year Syllabus-50

Bailey and Love’s Short Practice of Surgery - Norman.S. Williams, Charles.V. Mann and R.C.G. Russell
Fractures and Joint Injuries - Watson-Jones
Text books of Operative Surgery - Farquharsons’
Principles of Surgery - Schwartz
Emergency Surgery - Hamilton Bailey’s
Surgical pathology - Willing Worth
Clinical methods in surgery - S. Das
Textbook of Operative Surgery - S. Das
Shalya Vigyan (Sachitra) - Anantram Sharma
Anushastra Karma - Dr. D.N. Pande
Concept of Vrana is Ayurveda - Dr. Lakshman Singh
Significance for Poorva Karma in Surgical Patient - Dr. Lakshman Singh
Sangyaharan Prakash - Dr. D.N. Pande
A concise Text Book of Surgery - S. Das
A manual on Clinical Surgery - S. Das
A System of Surgical Diagnosis - T.N. Patel
A Practical Guide to Operative Surgery - S. Das
Drugs and Equipment for Anaesthesia - Arun kumar
Manual of Surgical Instruments - M.M. Kapur
Ward Procedures - Patel Mansukh. B
Recent trends in the management of
Arshas / Haemorrhoids - Dr. P. Hemantha Kumar
Primary Anaesthesia - Maurice King
Synopsis of Anaesthesia - Lee
Clinical Anatomy/ Surgical Anatomy - John E. Skandalakis
Surgical Instruments of the Hindus - Girindharnath Mukopadyay
Outline of Orthopedics - John Crawford Adams and David Hamblen. L
Outline of Fracture - John Crawford Adams
Recent trends in the management of
Bhagandara / Fistula-in-ano - Dr. P. Hemantha Kumar
Principles and Practice of Agnikarma - Dr. Anand Kumar and Dr. Kanchan Shekokar.
Manipal Manual of Surgery - Dr. Rajgopal Shenoy
17. SHALYA - KSHARA KARMA AVUM ANUSHASTRA KARMA
(Para Surgical Procedure including Minimal Invasive Surgery)

PAPER-II Theory- 100 marks

PART A 50 marks
1. Etymology and definition of Shalya Tantra.
2. Scope and Importance of Shalya Tantra.
4. Study of modern surgical clinical methodology.
5. Applied anatomy, physiology and surgical pathology of common surgical conditions including relevant Ayurvedic aspect.
7. Applicability of Prakriti in understanding the causes and role of treatment in surgical diseases.
8. Applicability of basic principles of Ayurveda in Rogi Pariksha (Trividha, Shadvidha, Ashtavidha and Dashavidha Pariksha) and latest investigations.
9. Concept of Rakta according to Sushruta.
11. Concept and applicability of Sadhya-Asadhya-Prognosis – Arishtha Lakshana.
14. Diagnosis and management of Pranastha Shalya.
PART B 50 marks

1. Yantra and Shastra – Surgical Instruments - Ancient and recent advances.
2. Sterilization – methods and types.
3. Basic knowledge of Sangyaharn – Anaesthesia - Types, methods, indications, contraindications, complications and its management.
5. Ashtavidha Shastra Karmas.
10. Raktamokshana – Introduction, types and applications.

PG 1st Year Syllabus-52

PRACTICAL 100 marks

Content :

Hospital duties in OPD, IPD, OT and casualty
Case record – 25 cases
Parasurgical cases - observation/performing- 10 cases
Knowledge of instruments required in parasurgical practices.
Ayurvedic diagnostic and therapeutic procedures.
Fluid therapy and blood transfusion.
Pre-operative, operative and post operative procedures.

Distribution of marks (practical):
1. Case records of 25 Patients in detail 20 marks
2. Bedside clinical case taking-
   Long case 20 marks
   Short case 10 marks
3. Identification of instruments, X-ray etc. 15 marks
4. Medical procedures 15 marks
5. Viva voce 20 marks
REFERENCE BOOKS:

Sushruta Samhita
Ashtanga Sangraha
Ashtanga Hridaya
Charaka Samhita

The Surgical instruments of the Hindus - Girindranath Mukhopadhyaya
Shalya Tantra Samuchchaya - Pandit Ramadesh Sharma
Shalya Vigyan (Part 1-2) - Dr. Surendra Kumar Sharma
Shalya Samanvaya (Part 1-2) - Vd. Anantaram Sharma
Shalya Pradeepika - Dr. Mukund Swaroop Verma
Soushruti - Dr. Ram Nath Dwivedi
Clinical Shalya Vigyan - Dr. Akhilanand Sharma
Bhagna Chikitsa - Dr. Prabhakar Janardhan Deshpande
Kshara sutra management in anorectal ailments - Dr. S.K. Sharma, Dr. K.R. Sharma and Dr. Kulwant Singh.
Anorectal diseases in Ayurveda - Dr. Sizoria and Dr. Praveen Kumar Chowdary.
Adhunika Shalya Chikitsa Siddanta - Dr. Katil Narshingham Udupa
Agnikarma Technology Innovation - Dr. P.D. Gupta
Shalya Tantra Ke Siddhant - Dr. K.K. Takral
Recent advances in the management of - Dr. P. Hemantha Kumar
Arshas / Haemorrhoids
Arsha Evum Bhagander Mein sutra Avacharan - Vd. Kanak Prasad Vyas
Recent advances in Kshara Sutra - Dr. M. Bhaskar Rao
Leech application in Ayurveda - Dr. M. Bhaskar Rao
Kshara Sutra - Dr. S.N. Pathak
Shalya Shalakya Tantra - Vd. S.G. Joshi
Surgical ethics of Ayurveda - Dr. D.N. Pande
Textbook of Surgery - Sabistan
Operative Surgery - Rob and Smith
PG 1st Year Syllabus - 53

Bailey and Love’s Short Practice of Surgery - Norman S. Williams, Charles V. Mann and R. C. G. Russell
Fractures and Joint Injuries - Watson-Jones
Text books of Operative Surgery - Farquharson’s
Principles of Surgery - Schwartz
Emergency Surgery - Hamilton Bailey’s
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Surgical Instruments of the Hindus - Girindhar Nath Mukopadyay
Outline of Orthopedics - John Crawford Adams and David Hamblen L
Outline of Fracture - John Crawford Adams
Recent trends in the management of - Dr. P. Hemantha Kumar
Bhagandara / Fistula-in-ano
Principles and Practice of Agnikarma - Dr. Anand Kumar and
PG 1st Year Syllabus-54

M.S.-AYURVEDA PRELIMINARY

18. ASTHI SANDHI AND MARMAGAT ROGA
(Orthopedics and management of vital points)

PAPER II Theory- 100 marks
PART A 50 marks

Etymology and definition of Shalya and Shalya Tantra. Scope and importance of Shalya Tantra.
Dosha, Dhatu, Mala and Sarotas vigyan.
Knowledge of ancient and recent Yantra and Shastra – Surgical instruments. Ashtavidha Shastra Karma and their application in surgical practice.
Handling and care of HIV and Hepatitis positive patients. Knowledge of conditions like Bacteraemia, Septicaemia, Toxaemia and Pyaemia
Concept of Shock - Its varieties etiopathogenesis and management – Cardio-pulmonary resuscitation (CPR), Endo-tracheal intubation and Tracheostomy.
Drug reactions and Anaphylaxis – Management.
Shatkriyakaala and its applicability in the pathogenesis of surgical diseases.
Knowledge of Prakriti and its impact on pathogenesis, clinical features and treatment of orthopedic diseases.
Rogi and Rog Pariksha (Trividha, Shadvidha, Ashtavidha and Dashavidha Pariksha) and its application in the diagnosis of diseases.
Vranashopha and Inflammation, Nadivrana and Sinuses / Fistulae, Vidradhi and abscesses.
Swellings – Arbuda and Tumours, Granthi and Cysts.
Anu Shastra Karma like Ksharakarma, Agnikarma, Raktavasechana etc. and their application in orthopedic practice.
Pranashta Shalya Vigyan.
Fluid, Electrolyte, Acid Base Balance and Nutrition
Introduction to physiology of fluids and electrolytes.
Dehydration and over hydration.
Specific electrolyte losses, symptomatology and management of Acidosis, Alkalosis and Acid-Base balance.
Various replacement fluids in surgery, mode of administration and complications.
Nutrition – pre-operative, peri-operative and post-operative.
Intravenous fluid therapy.
Knowledge of imaging and diagnostic techniques – X-ray, Ultra Sonography, CT scan, MRI and recent advances.

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PART B  50 marks
Scope of Asthi Sandhi evam Marmaghata Roga specialty and its importance. Historical aspect of Ayurvedic and modern orthopedics and Marma.
Marma Sharira – Etymological derivation, definition, basic concept of Marma, origin, classification, Pramana. Consequences of Marmaghata and their management.
Bhagna - Etiology, classification, general management principles, complications and prognosis of the skeletal injuries according to Ayurved and Modern aspect. Mechanism of bone healing.
Itrathadagdha and Burns - Etiology, classification, symptomatology, prognosis and management principles. Knowledge of Burns Shock, its prevention and management principles.
Principles of initial care of injured person. Handling of poly trauma patient. ARDS (Acute Respiratory
Distress Syndrome), Crush Syndrome, Thromboembolism, Fat Embolism syndrome and their management.
Systemic response to injury.
Pharmacology of emergency drugs, antibiotics, NSAIDs, Opiates, central muscle relaxants.

Anesthesiology related to Orthopedics. Pharmacology of local anesthetics and vasoconstrictors.
Knowledge of local anesthesia techniques like local anesthetic infiltration, various blocks (e.g. ring block, nerve block, plexus block, field block, hematoma block, costal block etc.) Spinal and epidural blocks.
Medico-legal aspects in orthopedics. Knowledge of documentation and record keeping.

**PRACTICAL 100 marks**

**Contents:**
Clinical history taking and examination of orthopedic patient.
Knowledge of diagnostic and therapeutic principles of Shalya Tantra.
Identification and functioning of surgical and orthopedic instruments.
Practical knowledge of documentation and record keeping.
Practical knowledge of Anu-Shastra Karma.
Practical Knowledge of Seevan Karma and suturing and Vrana Bandhana and bandaging.
Knowledge about the management of orthopedic emergencies.
Knowledge of Purva Karma and Pashchat Karma.
Practical knowledge of sterilization and OT fumigation.
Knowledge of handling of medico legal cases and issuing MLCs and other certificates.

**PG 1st Year Syllabus-56**

**Distribution of Marks (practical):**

<table>
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<tr>
<th>Component</th>
<th>Marks</th>
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<tr>
<td>Case Records (25 cases)</td>
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<tr>
<td>Bed Side examination</td>
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<tr>
<td>Patient History (Long case)</td>
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<tr>
<td>Patient History (Short case)</td>
<td>10</td>
</tr>
<tr>
<td>Instruments / equipments / models identification</td>
<td>15</td>
</tr>
<tr>
<td>Medical procedures</td>
<td>15</td>
</tr>
<tr>
<td>Viva Voce</td>
<td>20</td>
</tr>
</tbody>
</table>
REFERENCE BOOKS-:

1 Sushruta Samhita-Relevant parts

2 Sushruta Samhita (Dalhana commentary) Relevant parts

3 Charak samhita Relevant parts

4 Ashtang Hridaya Relevant parts

5 Ashtang Sangraha Relevant parts

6 Saushruti Ramanath Dwivedi

7 Watson and Jones – Fracture and Joint Injuries  J.N. Wilson

8 Practical Fracture Treatment R. McRae

9 Clinical Orthopedic Examination R. McRae

10 Apley’s System of Orthopedics Apley Louis Solomon

11 A Concise Text Book of Surgery  S. Das

12 Pye’s Surgical Handicraft

13 Clinical Methods in Surgery Sriram Bhatt

14 Clinical Methods in Surgery S. Das

15 Operative Surgery S. Das

16 Schwartz Principles of Surgery

17 Bailey and Love’s short practice of Surgery
PG 1st Year Syllabus-57

M.D.-AYURVEDA PRELIMINARY

19. SANGYAHARAN
   (Anesthesiology)

   PAPER-II      Theory 100 marks

PART-A      50 marks

Shisyopanayana, Vishikhanupravesha, Agropaharanay and Shatkriyakala.
Etymology and definition of Sangyaharan and its scope, application and importance in surgical
practice.
Fundamentals of Ayurveda in relation to Sangyaharan - Panchmahabhuta, Prakriti, Dosha, Dhatu and
Mala.
Concept of Vedana (pain), pathophysiology and modalities of pain management in Ayurveda.
Agni Karma in pain management.
Introduction, fundamentals, importance, types, methods of application, duration, instruments,
equipments and various materials used for Agni Karma. The indications, contraindications,
complications of Agni karma and their management.
Raktamokshana (blood letting) in pain management.
Introduction, fundamentals, importance, types, methods of application, duration, instruments,
equipments and various materials used for Raktamokshana. Indications, contraindications,
complications of Raktamokshana and their management.
Causes of vitiation of Rakta Dosha and Rakta Dushtijanya Vikaras.
Types of Raktamokshana and determination of appropriate amount of blood loss during Raktamokhana
according to diseases and patients.
Methods of Raktastambhana.
Leech Therapy in pain management. Varieties, importance, methods of applications, indications,
contraindications, complications and their management and method of maintenance of leeches.
Trividha Karma – Purva karma (preanaesthetic management), Pradhana karma(induction and
maintenance) and Pashchat Karma (post anesthetic care ).
Concept of Marma, their importance and application in Sangyaharan.
Concept of palliative care and its role in terminally ill patient care in Ayurveda.
PART-B  50 marks

History of anesthesia.

Molecular basis of anesthesia, cell physiology and body fluids.
Respiratory system: Anatomy of the upper airway – nose, pharynx, larynx, tracheobronchial segment, mechanics of respiration, physiology of respiration, ventilation, perfusion matching, lung volumes and capacities, pulmonary gas exchange and transport of gases, lung function tests – including laboratory tests for obstructive and restrictive lung diseases.
Cardiovascular system: Anatomy and physiology of heart and autonomic nervous system, maintenance of blood pressure, systemic circulation, pulmonary circulation, microcirculation and lymphatics.
Nervous system: Anatomy and physiology of central nervous system, cranial nerves, nerve plexuses, spinal column. Physiology of sleep, sleep disorders, physiology of pain, physiology of neuromuscular junction, autonomic nervous system – sympathetic and parasympathetic.
Endocrinology as related to anesthesia: Function of anterior and posterior pituitary and their dysfunction, hyper and hypothyroidism, hyper and hypopara-thyroidism, diabetes mellitus – hypo and hyperglycemia, ketoacidosis. Adrenal cortex and medulla functions and disorders.
Pathophysiology of renal failure, renal function tests.

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Pathophysiology of hepatic failure, liver function tests.
Shock and its management.
Fluid and electrolyte, acid base balance, ABG interpretation and water intoxication
Thermoregulation.
Pre anesthetic assessment and permedication.
Physics applied to anesthesia: Gas laws, ventilators & monitors, flow meters, vaporizers, breathing systems, carbon-dioxide absorbers, medical gas supply, suction machines, electrical fire & explosion hazards, pollution in O.T.
Sepsis, asepsis and sterilization- methods, types of sterilization of machine and equipments with special reference to tetanus, hepatitis, HIV-AIDS etc. O.T. fumigation.
Intravenous fluids, crystalloid & colloids, their indications, contra indications, complications and their management.
Blood transfusion-indication, contra indications, complications and their management, component therapy.
Medicolegal and ethical aspects in research and patient care. Medico legal issues, understanding the implications of acts of omission and profession, National Health policy - implications in a medico legal case like accidents, negligence, assaults etc.
Anaesthesia documentation and record keeping.

**PRACTICAL 100 marks**

**Contents:**
Anesthetic Drugs.
Demonstration of induction of Anesthesia.
Preanaesthetic assessment of patients.
Post anesthesia management.
Complications of anesthesia and their management.
Identification of instruments and knowledge of their use.

**Distribution of marks (Practical)**
Anesthesia documentation & record keeping - 20 Marks
Bedside clinical case taking
Long Case - 20 Marks
Short Case - 10 Marks
Procedure - 15 Marks
Identification of instruments & Spotting - 15 Marks
Viva-voce - 20 Marks

**REFERENCE BOOKS**

Sushruta Samhita
Charka samhita
Ashtang Hridaya
Practice of Anesthesia - Churchill Davidson
Miller’s Anesthesia - Ronald D Miller
Synopsis of Anesthesia - Alfred Lee
Sangyaharan Prakash - Dr. D. N. Pande
Agni karma-Technological Innovation - Dr. P.D. Gupta
Practice of Anesthesia and Resuscitation - Dr. P.K. Gupta et al
Essentials of Anesthesiology - Prof. A.K. Paul
Clinical Anesthesia - Prof. A.K. Paul
Anu Shastra karma - Dr. D.N. Pande
Textbook of Anesthesia - Aitkenhead
Anesthesia and co-existing disease - Stoelting’s

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M.S.-AYURVEDA PRELIMINARY

20. SHALAKYA - NETRA ROGA
(Ophthalmology)

PAPER-II Theory- 100 marks

PART-A 50 marks

Shalakya Tantra Parichaya, Itihas and Pradhanyam.
Netra Sharir and related Marmas
Study of Dosha, Dhatu, Mala and Srotas in context to Netra chikitsa.
Updated knowledge of Agropaharaniya in Netra chikitsa- incorporating sterilization, Sangyaharana (Anaesthesia).
Basic pharmacology of common drugs required in ocular diagnostic and therapeutic procedures.
Vrana Siddhanta-Trividha Shopha, Shuddha-Ashuddha Vrana, Vrana Srava, Vrana Bandha, Vranitopasana in context to Netra chikitsa.
Swasthavritta related to Netra.
Chaturvidha Chikitsa Siddhanta and Raktamokshana in Netra chikitsa.
Applied knowledge of various Kriyakalpas and other therapeutic procedures related to Netra chikitsa.
Role of Panchkarma in Netra chikitsa.
Netra Chikitsa Upayogi Vishishta Yoganam, Guna, Karma prayog gyanam of most common classical Yogas.
PART-B  

50 marks

Applied anatomy and physiology of eye, its adnexa and visual pathway.
Clinical methods of eye examination.
Application of various aids and techniques in the examination of eye viz Tonometry, direct Ophthalmoscopy, Perimetry, Refraction and Slit Lamp examination with their interpretation.
Fundamentals of optics and refraction.
Applied aspects of Aetio-Pathogenesis, clinical features, prognostic and therapeutic principles in Netra Roga Chikitsa along with Pathya-Apathya and their contemporary knowledge.
Common ocular emergencies and their management.
Applied aspects of Yantra and Shastra in Netra Chikitsa along with modern ophthalmic surgical instruments and equipments.
Knowledge of rules, regulations and medico legal aspects of ophthalmic practice including eye donation, eye banking and corneal grafting.
Knowledge of handling of biomedical waste.

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PRACTICAL

100 marks

Contents:

Clinical posting in OPD/IPD/Kriyakalpa Kaksha & OT
Clinical case presentation (10 cases)
Case record (20 cases)
Hands on training in Kriyakalpa
Distribution of marks (practical):

Case Record - 20 Marks
Bed side examination
Long case - 20 Marks
Short case - 10 Marks
Kriyakalpa procedure - 15 Marks
Identification of specimens and Instruments - 15 Marks
Viva-voce - 20 Marks

**REFERENCE BOOKS:**

1. Charka Samhita with commentaries
2. Sushrut Samhita and Vaghbhata with commentaries
3. Astanga Hridaya and Astanga Sangraha with commentaries
4. Madhava nidan with commentaries
5. Bhavaprakasha with commentaries
6. Sarangadhara Samhita with commentaries
7. Sahstrayoga Sangraha
8. Relevent part of Chakradhatta, Bhel Samhita, Harita Samhita
9. Shalakya Tantra - Ramanath Dwivedi
10. Shalakya Tantra - R.C. Chaudhary
11. The Actions and uses of Indigenous Ophthalmic Drugs - N. Srikant
12. Clinical Examination of Ophthalmic Cases - Agarwal and Gupta
13. Alder’s Physiology of the Eye and Clinical Applications - Cotlier, St. Louis
14. Disease of the Lens and Vitrous, Glaucoma and Hypotony - Duke Elder, St. Louis
<table>
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<tr>
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<th>Title</th>
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<td>A Text book of clinical ophthalmology</td>
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<td>Modern Ophthalmology</td>
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<td>Ophthalmology – Principles and Concepts</td>
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<td>Ocular Differential Diagnosis</td>
<td>Roy Fedrick Hampton</td>
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<tr>
<td>22</td>
<td>Abrahm Manual of Refraction</td>
<td>Duke and Elder</td>
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<tr>
<td>23</td>
<td>Hand Book of ophthalmology</td>
<td>B.M. Chaterjee</td>
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<tr>
<td>24</td>
<td>Hand Book of ophthalmology</td>
<td>Khurana</td>
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<tr>
<td>25</td>
<td>Clinical ophthalmology</td>
<td>Kanski</td>
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<tr>
<td>26</td>
<td>Parsons Diseases of Eye</td>
<td></td>
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<tr>
<td>27</td>
<td>Stallard’s Eye Surgery</td>
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M.S.-AYURVEDA PRELIMINARY

21. SHALAKYA- DANTA AVUM MUKHA ROGA
(Dentistry and Oral Disease)

PAPER-II Theory- 100 marks

PART-A marks 50
Shalakya Tantra Parichaya, Itihas avum Pradhanyam.
Mukhasharir.
Study of Dosha, Dhatu, Mala and Srotas in context to Danta and Mukha Roga.
Agropaharaniya in Danta and Mukha Roga incorporating sterilization, Sangyaharana and diagnostic and therapeutic pharmacological agents.
Vrana Siddhanta- Trividha Shopha, Shuddha-Dushta Vrana, Vrana Bandha and Vranitopasana in relation to Danta and Mukha Roga.
Swasthavritta related to Danta and Mukha Roga.
Chaturvidha Chikitsopaya (Bheshaja-Shastra-Kshara-Agni) Siddhanta and Raktamokshana related to Danta and Mukha Roga.
Applied knowledge of various Kriyakalpa and other therapeutic procedures related to Danta and Mukha Roga.
Role of Panchkarma in Danta and Mukha Roga.
Mukha and Danta Chikitsopayogi Aushadha Kalpana Parijnanam e.g. Dashana Samskara Manjana, Shwetamanjana, Vajradanta Manjana, Khadiradi Vati, Irimedadi Taila, Peetaka Churna, Kalaka Churna, Nimbadi Churna and Bhadramustadi Vati.

PART-B 50 marks
Applied orodental anatomy and physiology.
Clinical methods adopted in orodental practices.
Knowledge of advanced diagnostic techniques, equipments and tests of importance in orodental practices with their interpretations.
Classification, aetiopathogenesis, clinical features and therapeutics of Oshtha, Danta, Dantamula, Jihva, Talu and Sarvasar Mukharogas in the light of modern knowledge.
Basics of Sandhana Vidhi in Mukha and Danta Roga.
Applied aspect of Dysphagia, Manyastambha, Hanumoksha, Apachi (Cervical Lymphadenopathy) and Herpes.
Handling of biomedical waste.

PG 1st Year Syallabus-62

PRACTICAL 100 marks

Contents:
Clinical posting in OPD, IPD, Kriyakalpa Kaksha and OT.
Clinical case presentation (10 cases).
Case record (20 cases).
Hands on training in Kriyakalpa.
Distribution of marks (practical):
Case Record - 20 Marks
Bed side examination
Long case - 20 Marks
Short case - 10 Marks
Kriyakalpa procedure - 15 Marks
Identification of specimens, radiograph and instruments - 15 Marks
Viva-voce - 20 Marks

Reference Books
1. Sushrut Samhita - Dalhana
2. Useful Portion of Charak Samhita-Ashtang Samgraha - Ashtang Hridaya
3. Useful portion of Laghutrayi related to Danta and Mukha Roga
4. Shalakya Vijnanam - Ravindra Chandra Chaudhary
5. Nimi Tantra - Ramanath Dwivedi
4. Dental Anatomy Histology - Dr. S.I. Bhalajhi
5. Essentials of Preventive and Community Dentistry - Dr. Soben Peter
6. Complete Denture Prosthodontics - Dr. J.J. Manappallil
7. Orthodontics the Art and Science - Dr. S.I. Bhalajhi
8. Text book of Pediatric Dentistry - Dr. S.G. Damle
10. Clinical Periodontology - Dr. B.R.R. Varma
11. Anatomy for Dental Students - Inderveer Singh
12. Clinical Periodontology - Carranza, Newman
13. Operative Dentistry - M A Marzouk
17. Synopsis of Oral Pathology - S N Bhaskar
18. Oral Pathology - Stone

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M.S.-AYURVEDA PRELIMINARY

22. SHALAKYA- SHIRO-NASA- KARNA- AVUM KANTHA ROGA
(ENT & HEAD & Neck Disease)

PRACTICAL Theory- 100 marks

PART A 50 marks

Shalakya Tantra Parichaya, Itihas and ‘Pradhanya’. Establishment of ‘superiority of Shiras’ among all the organs. Determination and importance of the verse ‘Nasa hi Shirso Dvaram’.

Shiro-Nasa- Karna- Avum Kantha Shariram and knowledge of related Marmas.

Study of Dosha- Dhatu-Mala and Srotas in context of Shiro-Nasa- Karna- Avum Kantha Chikitsa.

Agropaharaniya in Shiro-Nasa- Karna- Avum Kantha Chikitsa including sterilization and anesthesia.

Basic pharmacology of common modern drugs used in diagnostic and therapeutic procedures related to Shiro-Nasa- Karna- Evum Kantha Chikitsa.


Swasthavritta related to Shiro-Nasa- Karna- Avum Kantha.

Chaturvвидha Chikitsopaya (Bheshaja- Shastra-Kshar -Agni ) and Raktamokshan related to Shiro-Nasa- Karna- Evum Kantha Chikitsa.

Applied knowledge of various therapeutic modalities like Shirobasti, Shirodhara, Shirovirechana, Nasya, Karna Pooran, Karna Dhoopan, Kaval, Gandusha etc.

Role of Panchkarma in Shiro-Nasa- Karna- Avum Kantha Chikitsa.
PART B  50 marks
Nasa - Applied anatomy and physiology of nose and paranasal sinuses. Clinical methods and knowledge of common nasal diagnostic equipments, procedures and their interpretation. Classification, etiopathogenesis, clinical features, prognostic considerations and therapeutics of Nasa Rogas in the light of modern knowledge.

PG 1st Year Syllabus-64

PRACTICAL  100 marks

Contents:
Clinical posting in OPD, IPD, Kriyakalpa Kaksha and OT.
Clinical case presentation (10 cases).
Case record (20 cases).
Hands on training in Kriyakalpa.
Distribution of marks (practical):
Case Record - 20 Marks
Bed side examination
Long case - 20 Marks
Short case - 10 Marks
Kriyakalpa procedure - 15 Marks
Identification of specimens and Instruments - 15 Marks
Viva-voce - 20 Marks
REFERENCE BOOKS:-
Sushrut Samhita
Charak Samhita
Ashtang Hridaya
Ashtang Samgraha
Laghutrayi
Modern books related to ENT disorder
Diseases of Nose Throat and Ear - Bhargav Shah
Diseases of Nose Throat and Ear, Head and Neck EB Edr.
A Textbook of otorhinololaryngology - Scott Browns editions.
Text book of Ear Nose Throat diseases – Dhingra
Textbook on ENT – Mohd. Maqbool
Logan Turner’s book on ENT
Ballengers text book of ENT
Kumin’s text book of ENT
Rob Smith’s book of ENT surgery
Paprella’s book of ENT
Hazarika’s text book on ENT
Books on examination of ENT
Audiology Anirwan Biswas
Kurt’s Audiology
Books on Speech therapy
SYLLABUS FOR II & III YEAR PG COURSE

SYLLABUS FOR FINAL YEAR

Subject 1. AYURVEDA SAMHITA & SIDDHANT

Theory - 400 marks(4 Papers of 100 marks each)

Practical and Viva-Voce - 100 marks

PAPER – I Charak Samhita
1. Charak Samhita complete with Ayurveda Dipika commentary by Chakrapani.
2. Introductory information regarding all available commentaries on Charak Samhita

PAPER – II Sushrut Samhita & Ashtang-Hridayam
2. Ashtang-Hridayam Sutra Sthanamatram with Sarvanga Sundara commentary by Arun Dutt. 3. Introductory information regarding all available commentaries on Sushrut Samhita and Ashtang Hridaya.

PAPER – III Ayurvediya and Darshanika Siddhanta
Introduction and description of philosophical principles incorporated in Charak Samhita, Sushrut Samhita, Ashtanga Hridaya, shtang Samgraha.
1. Analysis of principles specially loka-purusha samya, Shadpadartha, Praman, Srishti Utpatti, Panchmahabhuta, Pilupaka, Pitharpaka Karana- Karyavada, Tantrayukt, Nyayas (Maxims), Atmatatva siddhant.
2. Importance of Satkaryavad, Arambhavada, Parmanuvada Swabhavoparamvada, Swabhava Vada, Yadricha Vada, Karmvada.
3. Practical applicability principles of Samkhya- Yoga, Nyaya-Vaisheshika, Vedanta and Mimansa.

PAPER – IV Ayurved Itihash and Prayogika Siddhant.
2. Globalisation of Ayurved.
3. Introduction of department of AYUSH, CCIM, CCRAS, RAV.
4. Tridosh Siddhant.
5. Panchabhattuk Siddhant
7. Naishthiki Chikitsa.
8. Practical applicability principles of Charvak, Jain & Bauddha Darshana.

**Practical- Viva-voce - 100 Marks** (50 case sheets are to be filled from samhita siddhant IPD / OPD

**Reference Books**
1. Charak Samhita with Chakrapani commentary.
2. Sushruta Samhita with Dalhana Commentary.
3. Ashtanga Samgraha with Sarvangsundara.
4. Ashtanga Hridaya with Sarvangasundara.
5. Vaisheshika Darshan – Prashastapada Bhasya
6. Nyaya Darshan - Vatsyayan Bhasya Patanjala
7. Yoga Darshan- Vyas Bhasya
8. Vedantsara
9. Sarvadarshan Samgraha
12. Ayurved Darshan Vimarsha- Dr O.P. Upadhyay. PG Final Year Syllabus-2
13. Ayurvediy Jeevak Su -Dr O.P. Upadhyay.
15. Scientific Exploration of Ayurved – Dr. Sudhir Kumar.

2. **AYURVEDA SAMHITA & SIDHANTA** (Basic Principles) Astanga Hridaya, Charaka (P,U), Padartha Vignana & Ayurveda Ithihasa, Sanskrit

1 Dr. B. P. Pandey Group leader
2 Dr. Mahesh Vyas Coordinator - Coordinator –
3 Dr. B. L. Gaur Samhitha & Siddantha U.G. & P.G.
4 Dr. O. P.Upadhyaya Samhitha & Siddantha U.G. & P.G.
5 Dr. H. P. Sharma Samhitha & Siddantha U.G. & P.G.
6 Dr.S.L.Sharma Samhitha & Siddantha U.G. & P.G.
7 Dr. R. D. Thakkur Samhitha & Siddantha U.G. & P.G.
8 Dr. Naresh Sharma Samhitha & Siddantha U.G. & P.G.
RACHANA SHAARIRA Total Marks – 400

PAPER-I (GARBHA SHAARIRA) 100 Marks
2. Explanation of Basic Embryology, and Systemic embryology. 3. Knowledge of basic facts in advancement in Anuvanshiki (Genetics) and Garbhajavikara (Teratology).

PAPER –II (KOSHTHANGA SIRA DHAMANI SROTAS SHAARIR) 100 Marks
1) Koshthanga Shaarira: - Detail etymological derivation of 'Koshtha' and Koshthanga, including detail study of structure of each Koshthanga. Male and Female genital organs.
2) Ashaya: - Definition, detail description.
3) Kala Shaarira: Etymology, Definition, description of Seven Kala with their Modern component and applied aspects.

4) Paribhashika Shaarira: - Snayu, Kandara, Rajju, Sanghata, Jalaetc. and their general description.

5) Sira, Dhamani and Srotas Shaarira: - Etymological derivation, definitions, synonyms, number and types of Sira, Dhamani and Srotas, anatomical differences among Sira, Dhamani and Srotas, description of Vedhya and Avedhya Sira (Puncturable and Non puncturable Veins) and clinical importance of Sira, Dhamani and Srotas including Modern Anatomical counterparts.

PAPER – III (M arma Shaarira Evum Asthi Sandhi Peshee Shaarira) 100 Marks

1) Marma Shaarira: - Derivation and definitions of the term Marma and their features, characteristics and number of Marma according to Sushruta Divisions of Marma on morphological basis (Rachana Bheda), Shadangatvam (Regional), Abhighataja (Prognostic) classification, Trimarma according to Charaka. Knowledge of 'Marmaabhighata’, MarmaViddha, Detailed study of individual marma with their clinical and Surgical importance. Importance of Marma in Shalyatantra.

2) Asthi Shaarira :- General introduction and description of Asthi, differences among number of Asthi. Types of Asthi. Detail study of each bone with its ossification & Applied anatomy.

3) Sandhi Shaarira :- Etymological derivation, description, features, number, types and Applied anatomy of all Sandhi (joints).

4) Peshee Shaarira :- Etymological derivation, description, features, number, types and Applied anatomy of all Peshee (Muscles).

PAPER – IV (Tantra Shaarira Evum Antah and BahihGranthi Vigyaniya) 100 Marks

1. Description of Panchgyanendriya – Ayurved and Modern aspects. (Sensory organs (Eye, Ear, Nose, Tongue and Skin with their Applied anatomy). PG Final Year Syllabus-4


3. Anatomy of brain and spinal cord, Peripheral nervous system (explanation of Nerve Plexuses and peripheral nerves, Cranial nerves and Autonomic nervous system, Cerebro-spinal fluid, Venous sinuses of Brain, Ventricular system of Brain, Blood supply of Brain, Meninges with Applied Anatomy.

4. AntahSraviGranthi and BahihSraviGranthi:-Detail study of Exocrine & Endocrine glands.

PRACTICAL:-

1) Dissection of atleast one cadaver during the Final part of the course.

2) Training of preservation techniques in the Embalming room.

3) Preparation of Soft tissue specimen and Models using current technology like Plastination, Lumen
casting etc. under the guidance of Teaching staff and Experts of the relevant fields.

4) Preparation of Charts and Models of Rachana Sharirra subject to the individual capacity.

5) Observation of MRI, CT Scan, USG procedures, Colour Doppler etc.

6) Visits to various Museums of other colleges in the Medical field.

7) Observation of Ward procedures like Lumbar puncture, Tracheostomy, Abdominal parentesis, Liver biopsy, Venesection, etc. (subject to the availability and opportunities)

**Pattern of Practical Examination**

1. Practical record book & log book - 20 Marks
2. Spotting (Dissected organs and Bones-Joints-Muscles) - 20 Marks
3. Dissection - 40 Marks
4. Surface & Radiological Anatomy - 40 Marks
5. Dissertation Presentation - 10 Marks
6. Teaching Skills - 20 Marks

**Viva-voce - 50 Marks**

**Reference Books**

1. Relevant matters of Brihatrayee and Laghutrayee
2. Pratyaksha Shariram - Gananath Sen
3. Abhinava Shariram - Damodar Sharma Gaur
4. Parishadyam Sabdartha Shariram - Damodara Sharma Gaur
5. Brihat Shariram - P S Varier
6. Shiva Samhita
8. Human Anatomy - B D Chaurasia
10. Developing Human - Keith L Moore & Persaud
11. Clinically oriented Anatomy - Keith L Moore
12. Clinically oriented Neuro Anatomy - Richard Snell
13. Surface and Radiological Anatomy – Halim
14. Grant’s Methods of Anatomy - Grant
15. Grant’s dissector - Grant
16. Human Embryology - I. B. Singh

**KRIYA SHARIR Paper - I (Dosa-Dhātu-Mala Vijñāna)**

Contribution of different Ayurveda Samhita in Kriya Sharir
• Theory of Pancamahābhūta • Principle of Loka-Purusa Sāmya
• Importance of Sāmānya - Viśesa principle.
• Different views on the composition of Purusa and the importance of Cikitsya Purusa.
• Importance of Gurvādi Guna in Ayurveda.
• General description of Tridosa theory
• Mutual relationship between Triguna-Tridosa-Pancamahābhūta-Indriya.
• Mutual relationship between Rtu-Dosa-Rasa-Guna.
• Biological rhythms of Tridosa on the basis of Day-Night-Age-Season and Food intake.
• Role of Dosa in the formation of Prakrti of an individual.
• Role of Dosa in maintaining health.
• Vāta Dosa: General locations (Śhāna), general attributes (Guna) and general functions (Sāmānya Karma). Five subdivisions of Vāta with their specific locations, specific properties, and specific functions (Prāna, Udāna, Samāna, Vyāna, Apāna)
• Pitta Dosa: General locations (Śhāna), general attributes (Guna) and general functions (Sāmānya Karma). Five subdivisions of Pitta with their specific locations, specific properties, and specific functions (Pācaka, Ranjaka, Ālocaka, Bhrājaka, Sādhaka). Similarities and differences between Agni and Pitta.
• Kapha Dosa: General locations (Śhāna), general attributes (Guna) and general functions (Karma) of Kapha. Five subdivisions of Kapha with their specific locations, specific properties, and specific functions (Bodhaka, Avalambaka, Kledaka, Tarpaka, Ślesaka).
• Applied physiology of Tridosa principle: Kriyākāla, Dosa Vṛddhi-Dosa Ksaya.
• Dhātu Posana: Process of nourishment of Dhātu. Description of various theories of Dhātu Posana (Kṣīra-Dadhi, Kedārī-Kulya, Khale Kapota etc).
• Dhātu: General introduction and definition of Dhātu. Formation, Definition (Nirukti), Distribution, Attributes, quantity, classification, Pāncabhaṅgikā composition and Functions of all seven Dhātus in detail: Rasa, Rakta, Māṃsa, Meda, Asthi, Majjā, Śukra.
• Applied physiology of Dhātu: Manifestations of Ksaya and Vṛddhi of each Dhātu. Description of Dhātu Pradosaja Vikāra.
• Description of Āśraya and Āśrayī kind of relationship between Dosa and Dhātu.
• Description of the characteristic features of Astavidha Sāra. Description of Rasavaha, Raktavaha, Māṃsavaha, Medovaha, Asthivaha, Majjāvaha and Śukravaha Srotāmsi.
• Ojas: Definition, locations, synonyms, Formation, Distribution, Properties, Quantity, Classification and Functions of Ojas. Description of Vyādhiṣṭamitva. Bala Vṛddhikara Bhāva. Classification of Bala. Relation between Ślesmā, Bala and Ojas.

• Upadhātu: General introduction and Definition of the term ‘Upadhātu’. Formation, Nourishment, Quantity, Properties, Distribution and functions of each Upadhātu.

• Stanya: Characteristic features and methods of assessing Śuddha and Dūsita Stanya, Manifestations of Vṛddhi and Kṣaya of Stanya.

PG Final Year Syllabus

• Ārtava: Characteristic features of Śuddha and Dūsita Ārtava. Differences between Raja and Ārtava, physiology of Ārtavāhā Srotāmsi. • Study of Tvak • Physiology of Mala - Definition of the term ‘Mala’. Definition, Formation, Properties, Quantity and Functions of Purīsa, Mutra. Manifestations of Vṛddhi and Kṣaya of Purīsa and Mūtra. • Sveda – Definition, Formation, Properties, Quantity and Functions of Svedavāhā Srotāmsi. Formation of Sveda. Manifestations of Vṛddhi and Kṣaya of Sveda. • Dhātumala – Definition, Formation, properties, Quantity, Classification and Functions of each Dhātumala.

Paper-II - Prakṛti- Sattva Vijñāna

• Deha-Prakṛti: Various definitions and synonyms for the term ‘Prakṛti’. Factors influencing the Prakṛti. Classification of Deha-Prakṛti. Characteristic features of the individuals belonging to each kind of Deha-Prakṛti. Recent advances in understanding the Prakṛti.

• Pancajnanendriya: Physiological description of Pancajnanendriya and physiology of perception of Śabda, Sparśa, Rūpa, Rasa, Gandha. Indriya-panca-pancaka; Physiological description of Karmendriya.

• Manas – Definition, location (sthana), Properties, Functions and Objects of Manas.

• Ātmā – Definition, Properties of Ātmā. Difference between Paramātmā and Jīvātmā; Characteristic features of Ātmā.

• Buddhi – Location, Types, Functions of Buddhi; Physiology of Dhī, Dhṛti and Smṛti.

• Nidrā – Definition of Nidrā, Classification of Nidrā. Tandra, physiological and clinical significance of Nidra; Svapnotpatti and Svapnabheda.

• Physiology of special senses. Intelligence, Memory, Learning and Motivation.

• Physiology of sleep.

• Physiology of speech and articulation;

• Physiology of Pain and temperature.
Paper-III - Kosthanga Kriya Vijñāna

• Āhāra: Definition and significance of Āhāra. Classification of Āhāra. Āhāra-vidhividhāna. Asta āhāravidhi viśesāyatana, Āhāraparināmakara bhāva.


• Definition of the term Kostha. Physiological classification of Kostha and the characteristics of each kind of Kostha.

• Agni: Description of the importance of Agni. Classification of Agni. Locations, properties and functions of Jātharāgni, Bhūtāgni, and Dhātvagni.

• Applied physiology of Agni in Kriyā Śārīra and Cikitsā.

• Description of the aetiology and features of Annavaha Srotodusti. Applied physiology of Annavaha Srotās: Arocaka, Ajīrṇa, Atīsāra, Grahanī, Chardi, Parināma Śūla Agnimāndya.

• Description of the process of digestion of fats, carbohydrates and proteins in human gastrointestinal tract. Different digestive juices, their enzymes and their mechanisms of action. Functions of Salivary glands, Stomach, Pancreas, Small intestine, Liver and large intestine in the process of digestion and absorption.

PG Final Year Syllabus-7

• Movements of the gut (deglutition, peristalsis, defecation etc.) and their control. Role of neuro-endocrine mechanisms in the process of digestion and absorption. Enteric nervous system. • Applied physiology of gastrointestinal tract: Vomiting, Diarrhoea, Malabsorption etc. • Recent understandings related to the gut microbiota and their role in health and disease. • Introduction to biochemical structure, properties and classification of proteins, fats and carbohydrates. • Description of the processes involved in the metabolism of proteins, fats and carbohydrates. • Vitamins: sources, daily requirement and functions. Physiological basis of signs and symptoms of hypo and hyper-vitaminosis.

Paper-IV - Modern Physiology and its applied aspect Physiology of Neuro-Immune-Endocrine Mechanisms:

• Physiology of Nervous System. General introduction to nervous system: neurons, mechanism of propagation of nerve impulse.

• Study of CNS, PNS and ANS. Sensory and motor functions of nervous system. Functions of different parts of brain and spinal cord, Hypothalmus and limbic system

• Physiology of Endocrine system. Classification and characteristics of different hormones.
Description of hormones secreted by Hypothalamus, Pituitary gland, Thyroid gland, Parathyroid glands, Pancreas, Adrenal glands and their physiological effects. Effects of hypo and hyper-secretion of various hormones.

- Physiology of immune system. Definition and classification of immunity: Innate, acquired and artificial. Mechanisms involved in humoral and cell mediated immunity. Cardiovascular physiology, Respiratory physiology and Blood:
  - Functions of Haemopoetic system: Composition and functions of blood and blood cells. Haemopoiesis- (stages and development of RBCs, WBCs and platelets); Introduction to bone marrow: composition and functions of bone marrow. Structure and functions of haemoglobin, mechanism of blood clotting, study of platelets. physiological basis of blood groups. Principles of blood transfusion, plasma proteinssynthesis and functions. Applied physiology: Anaemia, Jaundice.

PG Final Year Syllabus-8

Musculoskeletal Physiology: • Physiology of muscles. Classification of muscles. Electrical and mechanical properties of Cardiac, skeletal and smooth muscles. Physiology of Excretion: • Physiology of excretion. Functional anatomy of urinary tract. Functions of kidneys. Mechanism of formation of urine. Control of micturition. Renal function tests. • Structure and functions of skin, sweat glands and sebaceous glands. Learners should be well versed with the following instruments- • Physiograph, Computerised spirometry, Biochemical Analyzer, Pulse oxymeter, Elisa Reader, Hematology Analyzer, Tread mill Bridge areas including recent advances: • Recent studies in biorhythms. • Recent advances in Neuro-Immune-Endocrine physiology. • Recent advances in stem cell research
PRACTICAL
Ayurvedic practicals • Assessment of Prakrti • Assessment of Sāra • Assessment of Dosa Vṛddhi Ksaya Laksana • Assessment of Dhātu Vṛddhi – Ksaya Laksana • Assessment of Agni • Assessment of Kostha • Assessment of Śaṅkha throughVyāyama Śakti • Mūtra Parīksa • Nādi Parīksā • Anguli Pramāna • Assessment of Sātmya Hematology • Use and care of Compound microscope • Histological study of different organs • Hemoglobin estimation • Total RBC count • Total WBC count • Differential leukocyte count • Packed cell volume (PCV) • ESR • Bleeding time • Clotting time • Blood grouping and Rh typing Urine examination Physical examination • Specific gravity and reaction of urine • Detecting the presence of Albumin in urine.

PG Final Year Syllabus-9
• Detecting the presence of Sugar in urine • Detecting the presence of Ketone bodies in urine • Detecting the presence of Bile salts and bile pigments in urine Cardio-Vascular system • Clinical methods of examining cardiovascular system • Examination of Arterial Pulse • Arterial blood pressure measurement: Effect of posture, exercise and cold pressor test on Blood Pressure • ECG recording and its interpretation • Heart Sounds Respiratory system • Clinical examination of Respiratory System • Lung Function Tests including Spirometry Nervous system • Clinical examination of nervous system • Examination of higher mental functions • Examination of cranial nerves • Examination of reflexes • Examination of sensory functions • Examination of motor functions • Examination of Autonomic Nervous System • EEG recording (Demonstration) Reference Books • Ayurvediya Kriyasharir - Ranjitrai Desai • Kayachikitsa Parichaya - C. Dwarikanath • Prakrit Agni Vigyan - C. Dwarikanath • Sharir Kriya Vigyan - Shiv Charan Dhyani • Abhinava Sharir Kriya Vigyan - Agharya Priyavrata Sharma • Dosha Dhatu Mala Vigyan - Shankar Gangadhar Vaidya • Prakrita Dosha Vigyan - Agharya Niranjana Dev • Tridosha Vigyan - Shri Upendranath Das • Sharira Tatva Darshana - Hirlekar Shastri • Prakrita Agni Vigyan - Niranjana Dev • Deha Dhatvagni Vigyan - Vd. Pt. Haridatt Shastri • Sharit Kriya Vigyan (Part 1-2) - Acharya Purnchandra Jain • Sharit Kriya Vigyan - Shri Moreshwar Dutt. Vd. • Sharira Kriya Vijnana (Part 1 and 2) – Nandini Dhargalkar • Dosha Dhatu Mala Vigyan - Basant Kumar Shrimat • Abhinava Sharir Kriya Vigyan - Dr. Shiv Kumar Gaur • Pragyogik Kriya Sharir - Acharya P.C. Jain • Kaya Chikitsa Parichaya - Dr. C. Dwarkanath • Concept of Agni - Vd. Bhagwan Das • Purush Vichaya - Acharya V.J. Thakar • Kriya Sharir - Prof. Yogesh Chandra Mishra PG Final Year Syllabus-10 • Sharir Kriya Vigyan - Prof. Jayaram Yadav &Dr. Sunil Verma. • Basic Principles of Kriya-Sharir (A treatise on Ayurvedic Physiology) - Dr. Srikant Kumar Panda • Sharir Kriya – Part I & Part II – Dr. Ranade, Dr. Deshpande & Dr. Chobhe • Human Physiology in Ayurveda - Dr Kishor Patwardhan • Sharirkriya Vigyan Practical Hand Book – Dr.Ranade, Dr.Chobhe, Dr.

**PG Final Year Syllabus-11 4.**


PG Final Year Syllabus-12 4.
DRAVYAGUNA VIGYAN PAPER-I

Namarupa Vigyana 100 marks
1. Importance of Namagyana of Dravya, origin of Namarupagyana of Aushadhi in Veda, etymological derivation of various names and synonyms of Aushadhi.
2. Rupagyana in relation to Aushadhi. Sthula and Sukshma description (Macroscopic and Microscopic study) of different parts of the plant.
4. Basonyms, synonyms and distinguish morphological characteristic features of medicinal plants listed in Ayurvedic Pharmacopoeia of India(API).
5. Knowledge of Anukta dravya (Extrapharmacopial drugs)with regards to namarupa.
6. Sandigdha dravya(Controversial drugs) vinischaya.
8. Knowledge of TKDL, Introduction to relevant portions of Drugs and cosmetic act, Magic remedies Act, Intellectual Property Right (IPR) and Regulations pertaining to Import and Export of Ayurvedic drugs.
9. Knowledge of tissue culture techniques
10. Knowledge of Genetically Modified Plants

PAPER – II Guna Karma Vigyan 100 marks
1. Fundamental principles of drug action in Ayurveda and conventional medicine.
2. Detailed study of rasa-guna- virya- vipaka-prabhava and karma with their applied aspects and commentators (Chakrapanidatta, Dalhana, Arunadatta, Hemadri and Indu) views on them.
3. Comprehensive study of karma as defined in Brihatrayee & Laghutrayee
4. Detailed study of Guna and Karma of dravyas listed in API and Bhavaprakasha Nighantu along with current research review.
5. Detailed study of aharadravya/ ahara varga ascribed in Brihatrayee and various nighantus along with Kritanna varga.
6. Pharmacological principles and knowledge on drugs acting on various systems.
7. Basic knowledge on experimental pharmacology for the evaluation of - analgesic, anti pyretic, anti inflammatory, anti diabetic, anti hypertensive, hypo lipidemic, anti ulcer, cardio protective, hepatoprotective, diuretics, adaptogens, CNS activites.
8. Knowledge on Heavy metal analysis, pesticidal residue and aflatoxins

PAPER – III Prayogavigyana Marks 100
1. Bhaishjya Prayog Siddhant [Principles of drug administration] - Bhaishajya Marga (routes of drug administration), Vividha Kalpana (Dosage forms), Principles of Yoga Vijnan( compounding), Matra (Dosage), Anupana (Vehicle), Aushadha grahankal (Time of drug administration ), Sevankal avadhi (duration of drug administration), Pathyapathya (Dos’ /Donts’ /Contraindications), complete Prescription writing (Samagra Vyavastha patraka).
2. Samyoga- Viruddh Sidhanta and its importance
3. Amayika prayoga (therapeutic uses) of important plants ascribed in as well as Brihattrayee, Chakradutta, Yoga ratnakara and Bhavaprakasha.
4. Knowledge of Pharmaco-vigilance in Ayurveda and conventional system of medicine. PG Final Year Syllabus-13
5. Knowledge of clinical pharmacology and clinical drug research as per GCP guide lines.

**Knowledge of Pharmacogenomics PAPER- IV 100 marks**

1. Etymology of nighantu, their relevance, utility and salient features.
2. Chronological history of the following Nighantus with their authors name, period and content: Paryaya ratnamala, Dhanvantari nighantu, Hridayadipika nighantu, Ashtanga nighantu, Rajanighantu, Siddhamantra nighantu, Bhavaprakasha nighantu, Madanpala nighantu, Rajavallabha nighantu, Madhava Dravyaguna, Kaiyadeva nighantu, Shodhala nighantu, Saligram nighantu, Nighantu ratnakara, Nighantu adharsha and Priya nighantu
3. Detailed study Aushadha kalpana mentioned in Sharangadhar samhita and Ayurvedic Formulary of India (AFI).
4. General awareness on poshaka ahara(Nutraceuticals),Varnya(cosmoceuticals), food addictives, Excipients etc.
5. Knowledge of plant extracts, colors, flavors and preservatives.
6. Review of important modern works on classical medicinal plants published by Govt of India, department of AYUSH and ICMR. Syllabus of the Practical training of part two

**M.D. (Ayu) - Dravyaguna Practical:- Study tours:**

Field identification of medicinal plants through at least three local Dravyaguna study tours within the state and one study tour out of state. Preparation of minimum 50 herbarium sheets, along with raw drug either from field, of plants be collected during study tours.
1. Evaluation of Crude drugs: Macro and microscopic methods of examining five drugs of each of different useful parts of plants, including their powders.
2. Phytochemical evaluation of raw material: Quantitative standards like foreign matter, extractive (water and alcohol), ash value, acid insoluble ash and TLC separation of various parts of minimum two plants of Ayurvedic Pharmacopoeia of India.
3. Yoga vijnana: Preparation of two yoga of each kalpana of Ayurvedic Formulary of India:
4. Pharmacology: Rasa nirdharana by Taste Threshold method of minimum one drug for each of rasas. Observation of animal experimentation models (both in vitro and in vivo)- 05 models for possible rasadi gunas.
5. Clinical Regular clinical training in the hospital for submission of Single Aushadhi Prayoga (Single drug trial/ Clinico-pharmacological studies.) Survey for Amayika prayoga of
aushadhi (Pharmaco epidemiology) for studying their role in clinical practice in contemporary period - observational study - minimum.

6. Dissertation A Dissertation, as per the approval of Departmental Research Committee/Competent Committee for the purpose, be prepared under the guidance of approved supervisor PG Final Year Syllabus-14 in Dravyaguna and submitted 6 months before the final examination. The approval of Dissertation shall be essential before appearing the final examinations.

7. Method of practical training – Posting for minimum one month in each of the following units - Quality control laboratory of nearest pharmacy/institution for crude drug identification, adulterants and substitutes & understanding standardization techniques. Experimental pharmacology laboratory for developing skills in animal experimentation. Regular clinical training in the Teaching hospital for studying Ekala Aushadhi Prayoga & Adverse drug reactions (ADR).

8. Post Graduate Scholar is expected to present minimum two scientific papers in National / international seminars during the course of study

9. Post Graduate Scholar is expected to publish / get accepted at least one paper in indexed/ peer reviewed journal under the supervision of guide. Pattern of Practical Examination- Total =200 marks


Reference books

PG Final Year Syllabus-15 5.

RASA SHAstra AND BHAISHAJYA KALPANA

Paper I Rasa Shastra Part A


2. Detailed knowledge of ancient and contemporary Yantropakarana and their accessories used in aushadhi karan and their contemporary modification such as yantras, mushas, putas, Koshthis, bhrashtris, muffle furnaces and other heating appliances, ovens, driers etc. used in manufacturing of Rasaushadhis in small scale and large scale along with their applications.

3. Study of Samskara, Role of agni (Heat), jala and other dravas (water and other processing liquids), kala (Time span), paatra (container) etc. and their significance in aushadhi karan.

4. Concept of Bhavana, study of Mardana and its significance and knowledge of ancient and contemporary grinding techniques.

5. Detailed Knowledge of different procedures of Shodhana, Jarana Murchana and Marana, concept of

6. Detailed knowledge of Satva and Druti, Satva shodhan, mrudukaran and Maran of Satva, its significance, in relation to therapeutic efficacy of dravya under process.

7. Concept of Pratinidhi dravya and discussion on controversial drugs.

**PART – B**

1. Detailed ancient and contemporary knowledge of Parada and its compounds with reference to source, occurrence, physico-chemical characterization, grahaya agraahyatva, Parada dosha, Parada gati, Parada shodhan, Study of Ashta sanskara, ashtadasha sanskara etc., Hingulottha Parada. Concept of Parada jaran, moorcchana, bandhan, pakshaccheda and marana etc. Therapeutic properties and uses of Parada.

2. Detailed ancient & contemporary knowledge with Geochemical / mineralogical / biological identification, source, occurrence, physico-chemical characterization, grahaya-agraahyatva, Shodhan Maranadi vidhi and therapeutic properties and uses of dravyas etc. included in Maharasa, Uparasa, Sadharana rasa, Dhatu, Upadhatu, Ratna, Uparatna, Visha, Upavisha, Sudha varga, Lavana varga, Kshara varga, Sikata varga and other miscellaneous drugs used in Rasashastra.


5. Study of classical texts with respective commentaries and special emphasis on Rasarnava, Rasahridaya tantra, Rasa Ratna Samuccchaya, Rasendra Chintamani, Rasendra Chudamani, Rasa Ratnakara, Rasadhyaya, Rasa Kamdhenu, Anandkanda, Siddha Bleshaja Manimala, Ayurveda
Prakash, Rasatarangini, Bhaishajya Ratnavali, Rasamritam etc. and the books mentioned in the Schedule I of D & C Act – 1940. Relevant portions of Brihatrayi.

**Paper II**

**Bhaishajya Kalpana Part A**

1. History and Chronological evolution of Bhaishajya Kalpana, Concept of Bhashaja and Aushadh, fundamental principles of Bhaishajya Kalpana. Technical terminologies (Paribhasha) used in Bhaishajya Kalpana.

2. Classical and Contemporary concepts of Collection, storage, Saviryata Avadhi and preservation methods of different fresh and dry Aushadhi dravyas and their grahya agraahyatva

3. Detailed knowledge of routes of drug administration, Aushadha matra, Anupana, Sahapana, Aushadha Sevana Kala, Kala Avadhi, Pathya, Apathya (Posology).

4. Detailed knowledge of manufacturing, standardization, quality control, pharmacopeial standards, storage, shelf life and development of innovative technology with Standard manufacturing Operating Procedures of following dosage forms


   iii) Kritanna and Bhashaja Siddha Anna Kalpana, Aharopayogi varga, concept of medicinal and functional food, dietary supplements and neutraceuticals etc.


   v) Bahya Prayogartha Kalpana : Lepa, Upanaha, Udvartan, Avachurnana / Avadhulana, Abhyanga, Dhupana, Malahara. vi) Mukha, Karna, Nasa, Netropacharartha Kalpana: PG Final Year Syllabus-17

Part B

All the following procedures are to be studied in relevance to Ayurvedic Bhaishajya Kalpas.

1. Methods of Expression and Extraction: Maceration, percolation, distillation, infusion and decoction.
2. Liquids: Clarified liquid, syrup, elixir, filtration techniques
4. Semisolid dosage forms, emulsions, suspensions, creams and ointments, sterilization of ophthalmic preparations.
5. An introduction to various cosmetic preparations.
6. Drying, open and closed air drying, freeze drying, vacuum drying and other drying methods pharmaceutical excipients.
7. Study of classical texts with special emphasis on Chakradatta, Sharangadhara Samhita, Bhaishajya Ratnavali, Bhava Prakasha, Yogaratnakara, relevant portions of Brihatrayi, Ayurvedic Pharmacopeia of India, Ayurvedic Formulary of India.

Paper III

Rasa Chikitsa & Aushadha Yoga Vigyana PART- A


**Part B**


PAPER – IV
Pharmacology and Pharmacy Management
PART - A
effect, Bioavailability and Bioequivalence, drug interactions, adverse drug reaction and drug toxicity
d) Preclinical evaluation: experimental pharmacology [bioassay, in vitro, in vivo, cell line studies]
animal ethics.
2. Clinical pharmacology: Evaluation of New Chemical Entity – phases and methods of clinical
research. Ethics involved in human research.
3. Elemental constituents of human body and its physiological importance. Deficiencies and excess of
various elements (micro-nutrients).
4. Toxicity of heavy metals and chelation therapy.
5. Knowledge of toxicity and pharmacological activities of herbo-mineral compounds.
Pharmacovigilance of Ayurvedic Drugs

Part B
2. Pharmaceutical dosage form design (Pre-formulation)
3. Packaging materials and Labeling
4. Management of pharmacy, store and inventory management, personnel management, Good
Manufacturing Practices related to Ayurvedic drug industry.
5. Pharmaceutical Marketing, product release and withdrawals.
6. Hospital, Dispensing and Community pharmacy.
8. Laws Governing Ayurvedic drugs PG Final Year Syllabus-20 i. Relevant regulatory provisions of
Ayurvedic drugs in Drug and Cosmetics Act - 1940 and Rules - 1945 ii. Laws pertaining to Drugs and
Magic remedies (Objectionable Advertisement) Act - 1954. iii. Prevention of Food Adulteration (PFA)
act. iv. Food Standards and Safety Act - 2006 v. Laws pertaining to Narcotics vi. Factory and
9. Regulatory Affairs related to International Trade and Practices of Ayurvedic Drugs
10. Introduction to Ayurvedic Pharmacopoeia of India, Ayurvedic Formulary of India.
11. Introduction to Indian Pharmacopoeia, British and United States Pharmacopoeia, Pharamcoepial
Codex 12. Introduction to Traditional Knowledge Digital Library

Practicals:- Minimum 150 Practicals are to be performed covering all the dosage forms. Educational
Visits to minimum Five (5) GMP approved Ayurvedic Pharmacies. Ten days posting in R & D /
Production unit in GMP certified Ayurvedic Pharmacy. Minimum attendance in three National
Conferences within three academic years. Minmum 10 clinical cases using different dosage forms are
PG Final Year Syllabus

AGADA TANTRA EVUM VIDHIVAIDYAKA

PAPER-I Agada Tantra (Ayurvedic and Contemporary Toxicology) 100 marks
1. Agada Tantra, its sequential development during Veda kala, Samhitha kala, Samgraha kala and Adhunika kala.
2. Definition of Visha, properties of visha and its comparison with madya and oja, visha samprapti, visha prabhava, visha-vega, vegantara and visha karmukata (toxicodynamic and toxicokinetic study).
3. Descriptive and comparative study of Upavisha in unison with Contemporary Toxicology.
4. Examination of poisons as per Contemporary and Ayurvedic Methods.
5. Descriptive study of sthavara visha, definition, classifications, classical signs and symptoms of poisoning including vanaspatic (phyto poison), khaniija (mineral) and compound sthavara visha.
7. Garavisha and Dushi visha, their varieties, signs, symptoms and management with contemporary relevance. Detailed study of Allergies including allergic manifestations in the eyes, nose, lungs and skin.
8. Detailed study of Madya visha and substances acting on the nervous system; substance abuse. (Diagnosis, Management and De-addiction)
9. Detailed study of the contemporary knowledge about vishajanya Janpadodhvansaniya roga (community health problems due to poisons - Environmental pollution, water pollution, soil pollution, air pollution, Industrial pollutions etc. their features and management according to ancient and recent concepts.
10. Concept of Virudha aahara, Aahara visha and Satmyasatmyata in contemporary and Ayurvedic views.
11. Conceptual study:- Drug interactions and incompatibility, Pharmacovigilance

PAPER- II

Visha Chikitsa Vigyan (Management Of Poisoning) 100 marks
1. Fundamental Principles for treatment of poisoning
2. General and specific treatment of different types of Sthavara visha.
3. General and specific treatment of different types of Jangama visha (animal poisons, insect poisons, snake bites and other zoonotic diseases).
4. Emergency medical management of poisoning including preparation, administration and complications of antivenoms/antisera.
5. Chaturvimsati upakrama (24 management procedures).
7. Diagnosis and Management of Drug Induced Toxicity
8. Management of the toxic manifestations caused by the contact poisons (paduka, vasthra, abharana, mukhalepa- vishabadha etc).
10. Death due to poisoning, Duty of physician in poisoning, in cases of suspected poisoning. Post mortem findings in poisoning.
11. Extra -corporeal techniques (dialysis etc) for removal of poisons. PG Final Year Syllabus-23

PAPER –III

Vyavahara Ayurveda Evam Vidhi Vaidyaka 100 marks
1. Definition of Vyavahara Ayurveda, its evolution in ancient and contemporary periods.
2. Personal identity and its medico-legal aspects
3. Death and its medico-legal aspects (Medical Thanatology)
4. Asphyxial deaths and its medico-legal importance.
5. Death due to starvation, heat and cold, lightening and electricity. Suspended Animation.
7. Injuries due to explosions, chemical and nuclear warfare.
8. Medico-legal aspects of injuries and wounds.
10. Sexual offences and perversions.
12. Indian Penal Code, Criminal procedure code and study of related acts like Indian Evidence Act, Pre Nataal Diagnostic Test Act, Nursing Home Act, Human Organ Transplantation Act, Drugs and

14. Forensic Science Laboratory
15. Medico legal aspects of mental illness
17. Structure of Central Council of Indian Medicine, its jurisdiction and functions. Code and Conducts as per the CCIM, Rules and Regulations there under.
18. Respective State Council of Indian Medicine, its structure, power, voluntary duties.
20. Rights and privileges of patients; Euthanasia.
21. Professional secrecy and privileged communication.
22. Professional negligence and malpractice
23. Indemnity Insurance scheme.
25. Ethics as in classics. Types of physicians and methods of identification, Pranabhisara and Rogabhisara Physicians, qualities of physician, responsibilities of Physicians, Chathurvidha vaidya vriti, duties of physicians towards patients, Vaidya sadvritam, Apujya Vaidya who is accepting fees, relationship with females.

PAPER – IV
Aushadha Yoga Vigyan 100 marks
1. Study of process for sodhana, marana and samskarana of poisonous drugs.
2. Pharmacodynamics of different formulations used in Agadatantra
3. Study of pharmacology and usage of antidotes as per the Ayurvedic and contemporary science.
4. Fundamentals of pharmaceutics according to Ayurvedic and contemporary point of view.
5. Chemical, analytical, laboratory examination of poisons and suspicious substance.
6. Introduction of different instruments / equipments used in the examination of poisons.
7. Introduction to Clinical toxicology
8. Introduction to Experimental toxicology PG Final Year Syllabus-24
9. Introduction to Toxico-genomics
10. Survey and study of the traditional and folklore vishachikista sampradaya. Content of Practical/Demonstration 1. Identification of specimens models and equipments of toxicological and

Reference Books:-
1. Useful Portion of Charak-Sushrut-Vagbhata
2. Dravyaguna Vigyan - Acharya Yadavji
3. Aushadhisadhigunadharma Shastra - Pt Visvanath Dvivedi
4. Kriyatmat Aushada parichaya Vigyan - Pt Visvanath Dvivedi
5. Ayurvedic Vyadhi Vigyan - Acharya Yadavji Trikamji
6. Madhavanidan with Madhukosha commentary
7. Sharangadhara Samhita
8. Yogaratnakara
9. Aushadigunadharma Shastra -Pt Gangadhara Shastri Gune
10. Rasendracintamani
11. Rasaratna samuchhaya
12. Vishavigyan - Dr. Krishna Kumar
13. Related matter of Kautilya Artha Shastra
14. Harmekhlatantra
15. Anupana manjari PG Final Year Syllabus-25
16. Ayurvedprakash
17. System of clinical Medicine - Savil
18. Forensic Pharmacy - B.M. Mhithai
19. Hand book of Forensic Medicine and toxicology - Dr. P.V. Chadha
20. Viva Forensic Medicine and toxicology - L.C. Gupta
21. Forensic Medicine and Ethics - J.P. Narena
22. Modi’s Medical Jurisprudence and Toxicology
23. The essentials of forensic medicine and toxicology - Dr.K.S. Narayan Reddy
24. Medical Laws and Ethics - Dr. H.S. Mehta
25. M.R.K. Krishnan’s Handbook of Forensic Medicine
26. Text book of Medical Jurisprudence and Toxicology - Dr. C.K. Parikh
27. Atlas of Forensic Medicine - Dr. Tomio Watenbe
28. Medico legal Post Mortems (Atlas) - Dr. Parikh and Others
29. Textbook of Forensic Medicine and Toxicology - Dr.V.V. Pillay
30. Textbook of Forensic Medicine and Toxicology - Dr. Karmakar
31. Textbook of Forensic Medicine and Toxicology - Dr. Singhal
32. Textbook of Forensic Medicine and Toxicology - Dr. Krishnan Vij
33. Forensic Pathology - Dr. Bernard Knight
34. Textbook of Forensic Medicine and Toxicology - Lyon’s
35. Pocket picture guide to Forensic Medicine - Gower’s Medical Publication
36. Forensic Medicine - Simpson Knight
37. Taylor’s Principles and Practical of Medical Jurisprudence - J and A Churchis
38. Doctor and law - Singhal
39. Textbook of Toxicology - Singhal
40. Medicine Harrison’s Principal of Internal Medicine
41. Agad Tantra - Dr. Shekhar Namboodri
42. Modern Medical Toxicology - Dr. V.V.Pillay
43. Critical care toxicology - Bruent Wallace
44. Diagnosis and Management of common poisoning - Agarwal wali
45. Colour Atlas of Forensic Medicine - Govindaiah
46. Guidelines of poisons - W.H.O.
47. Doctors patients relationships - Dr.Lavekar
49. Vishavaidya Jyotsnika -- English translation By VPSV Ayurveda college, Kottakkal.
50. Lakshnamritham.
51. Toxicology, Ayurvedic perspective - VPSV Ayurveda college, Kottakkal
52. Text book of Agadatantra - Edited By Dr Huparikar, Dr. Joglekar
53. Agadatantra ki Pathyapustaka - Edited By Dr Huparikar, Dr. Joglekar
54. Vyavahar Ayurveda Vigyanam - Dr. Indramohan Jha (Sachchan)
55. Forensic Medicine - Dr. B. Umadathan
56. Visha Chikitsa - Dr. M. Balakrishnan Nair
57. Park Text book of Preventive and Social Medicine. - K. Park
59. Veterinary Toxicology - Dr. Satish K. Gargi
60. Guide to Drinking Water Quality (3 Volumes) - WHO Publication

PG Final Year Syllabus-26 7.

SWASTHAVRITTA PAPER I

VAIYAKTIKA SWASTHAVRITTM SADVIRITTM CHA Marks 100

1. Concept of holistic health according to Ayurveda.
2. Spectrum of health, Iceberg phenomenon of diseases, dimensions of health.
5. Ratricharya – Bhavamishra and other classics.
6. Day and night pattern in various countries.
7. Ritucharya – Classical description by Charaka, Sushruta, Vagbhata, BhelaSamhita and Bhavamishra.
8. Ritus prevalent in various Indian states.
9. Ritu pattern in various countries of the world.
10. Shodhana Schedule for Ritusandhis.
11. Concept of Vegas, types and the physiology behind each vega and vegadharana.
13. Aharavargas and comparison with todays’ food items.
14. Staple diet of various States of India.
15. Staple diet of various countries in correlation with their climate.
17. Food intervention in malnutrition, under nutrition and over nutrition.
18. Rules of food intake according to Charaka, Sushruta and Vagbhata.
19. Pros and Cons of vegetarian and Non vegetarian foods.
20. Viruddhahara – Classical and modern day examples.
22. Prajnaparadha – Causes, Effects and solution.
24. Rasayana procedures for Swastha
26. Mental Health and the role of Ayurveda in it.
27. Vyadhikshamatva – Modern and Ayurvedic concepts.
28. Principles of Health Education.
29. Genetics in Ayurveda and Modern Science

**PAPER II**

**SAMAJIKA SWASTHAVRITTAM (COMMUNITY HEALTH) Marks 100**

1. Concept of community health.
2. Concept of Prevention according to Ayurveda.
4. Web of causation of diseases, Multifactorial causation.
5. Natural History of diseases.
7. Disinfection practices for the community – Modern and Ayurvedic.
8. Immunization programmes. Possible contribution of Ayurveda.
13. Medical Entomology– Arthropods of Medical Importance and their control measures. PG Final Year Syllabus-27
15. School Health Services and possible contribution of Ayurveda.
17. Family Welfare Programme and the role of Ayurveda in it.
18. Old age problems in community. Role of Ayurveda in Geriatrics.
19. Care of the disabled.
20. Life Style disorders (Non Communicable diseases) in community and the role of Ayurveda in them.
22. Medical Sociology.

PAPER III
SAMKRAMAKA ROGA PRATISHEDHAM EVAM SWASTHYAPRASHASANAM Marks 100
1. Modern Concept of Epidemiology
2. Critical evaluation of Janapadodhwamsa.
3. Epidemiology of different Communicable diseases in detail.
4. General investigations for Communicable diseases
5. Sexually Transmitted Diseases and their control
6. Ayurvedic view of Samkramaka Rogas.
7. Investigation of an Epidemic
8. Control of Epidemics.
9. Host Defenses.
10. Ayurvedic methods of Vyadhikshamatva.
11. Health advice to travelers.
12. Hospital, Isolation ward and bio medical waste management
14. Health administration under Ministry of H &FWD
15. AYUSH, NRHM, NUHM administration, functions and programmes.
16. National and International Health Agencies and their current activities.
17. Disaster management
18. Statistics related with Infectious diseases at International, National and State levels
19. Vital Statistics

PAPER IV
YOGA AND NISARGOPACHARA Marks 100
1. History and evolution of Yoga
2. Different Schools of Yoga
3. Rajayoga – (Ashtanga yoga) philosophy of Patanjali according to Yogasutras.
4. Hathayoga - according to Hathayogapradeepika, GherandaSamhita and Shivasamhita.
5. Karmayoga – Philosophy according to Bhagavad Gita
6. Mantrayoga, Layayoga, Jnanayoga and Bhaktiyoga.
8. Concept of Sthula, Sukshma and Karana Shariras
9. Concept of Panchakoshas
10. Concept of Shad chakras and Kundalini
11. Shad Kriyas and their therapeutic effects.
12. Therapeutic effect of yogic practice in the following diseases - Diabetes, Hypertension, Cardiovascular disorders, Obesity, Asthma, Piles, Irritable Bowel Syndrome, Eczema, Psoriasis, Stress Disorders, Eye disorders, Head Ache, Juvenile Delinquency, Mental retardation, Depression, Neurosis, Sexual Dysfunction, Uterine Disorders, Cancer. PG Final Year Syllabus
13. Yoga in Ayurveda – Concept of moksha, Tools for Moksha, Naishthikichikitsa, TatvaSmriti, Satyabudhhi, yoginamBalamAishwaram (charakaSamhitaSharirasthana chapter 1 & 5)
15. Basic Principles of Western School of Nature Cure
17. Different types of Massage and their therapeutic effects

The brief report of each visit (Minimum 10 compulsory) should be written by student in a journal (Duly signed by Guide and HOD)


- Active Participation in Various National Health Programmes
- Community Health Survey
- School Health Check-up (minimum 100 students)

8. Departmental duties: Regular Attendance as- PG Final Year Syllabus-30 Duty in OPD and IPD with regard to Pathyapathy, Yoga and Nisargopachar.


1) Relevant portions of Charak, Sushruta, Vaghbata (AshtangHrudaya), Ashtang Samgraha, Sarangadhara, Madhavanidan& Yogaratnakara, Bhela Samhita with the respective commentaries
2) SwasthavrittSaamuchaya – VaidyaPt.RajesvarDuttaShastri
3) SwasthyaVignyana - Dr.B.G.Ghanekarshastri
4) PrakritikaChikitsa -Kedarnath Gupta
6) SwasthaVigyan - Dr. MukundswaroopVerma
7) Ayurvediya Hitopadesh - Vd.RanjitRai Desai
8) Yoga and Ayurveda - Dr. Rajkumar Jain
9) SwasthavrittaVigyan - Dr. Ramharsha Singh
10) Swasthavritta - Dr. BramhanandTripathi
11) HathayogPradipika – Swatmaram Yogendra (Kaivalyadhamma)
12) Yogik YogPadhati - BharatiyapraakrutikChikitsaPadhat
13) Yogik Chikitsa - Shri Kedarnath Gupta
14) PrakrutikChikitsaVigyan - Verma
15) Janasankhyashikshasidhanta evam Upadeysa - S.C. Seel
16) Swasthavritta - Dr. Shivkumar Gaud
17) Health and Familywelfare - T.L. Devraj
18) Sachitra Yogasan Darshika - Dr. Indramohan Jha
19) Preventive and Social medicine - J.K. Park
20) Yogadeepika - Shri B.K.S. Iyengar
21) Swasthavritta - Vd.Sakad
22) Positive Health - Dr. L.P. Gupta
23) Biogenic Secretes of Food In Ayurveda - Dr. L.P. Gupta
24) Yoga and Yogikchikitsa - Ramharsha Singh
25) The Foundation of Contemporary Yoga - R.H. Singh
26) Yogasidhanta evum Sadhna

PG Final Year Syllabus-32 8.

ROGA NIDANA PAPER- I

FUNDAMENTAL PRINCIPLES OF ROGANIDANA Concept of Tridosha and its Pathological implications. 63 permutations and combination of Tridosha. Lina and Stambhita Dosha, their cause and importance in manifestation of Samprapti Concept of Rakta as a Chaturtha Dosha. Importance of Rakta in the manifestation of diseases. Concept of Ashrayashrayi bhava and its applied utility. Different types of Dosha Gati. Causative factors and practical utility of movement of Doshas from Kostha to Shakha and Shakha to Koshtha. Concept of Ashayapakarsha. Trayo roga marga, their diseases and clinical importance of Roga Marga. Concept and classification of Avarana, its role in pathogenesis, mode of diagnosis of Avarana and its importance in chikitsa sutra. Applied aspect of Dhatu Poshana Krama and Dhatu Samvahana. Concept of Margaga and Sthanastha Dhatus. Concep and applied aspects of Doshapaka and Dhatupaka Fundamental and applied aspect of Dhatu, Upadhatu and Mala. Diseases developed due to their vitiation (pradoshaja vikara). Concept and applied aspects of Srotas, their importance in health and diseased conditions. Concept and applied aspects of Sroto Dushti and Khavaigunya. Understanding the various srotas which are not included in classical list of srotas but enumerated while describing the samprapti of diseases. Description of Dosha-Dushya-Sammurchhana, Concept of Prakriti Sama Samaveta and Vikriti Vishama Samaveta Sammurchhana. Importance of Dosha-Dushya-Sammurchhana in Diagnosis and treatment. Concept of Vikara vighata bhavabhava prativisesha. Concept of Agni and its role in manifestation of health and disease. Concept and pathogenesis of Ama. Contemporary interpretation of Ama and its role in pathogenesis. Sama,

**PAPER – II**

**ROGA VIGYANA**

Knowledge of classical Samprapti of following diseases with interpretation of Nidana Panchaka including Upadra, Arishta and Sadhyasadhyata and Chikitsa Sutra. Knowledge of commonly occurring diseases of the respective systems mentioned in contemporary medicine and their Ayurvedic interpretation.


3. Diseases of Udakavaha Srotas- Trishna, Daha and knowledge of water and electrolyte imbalance disorders

4. Diseases of Rasavaha Srotas - jwara and Ayurvedic understanding of common clinical entities like various types of Fever- Malaria, Typhoid, viral fevers. Pandu, Amavata, Hridroga, Shotha and Ayurvedic understanding of common clinical entities like Anaemia & its Classification, Rheumatic fever, Rheumatoid Arthritis, Angina, Ischaemic Heart Disease, Hypertension, Myocardial Infarction, Congestive cardiac failure.


6. Diseases of Mamsavaha srotas- Introduction to Granthi, Arbuda,Galaganda and Arsha. Ayurvedic
understanding of all types neoplasia and Thyroid diseases.

7. Diseases of Medovaha srotas- Sthoulya - Karshya – Prameha and Ayurvedic understanding of common clinical entities like Obesity and Diabetes Mellitus.


10. Diseases of Sukravaha srotas- Klaibya and Vandhyatva and understanding of male and female Infertility, Impotence.


13. Diseases of Manovaha Srotas - Vishada, Udvega, Bhaya, Bhrama, Anidra, Mada, Murchha, Sanyasa, Apasmara, Unmada, Atatwahhinivesha and Ayurvedic understanding of common clinical entities like Depression, Anxiety neurosis, Phobia, Personality disorders.


15. Jara janya Vyadhi: Alzheimer’s Disease

16. Concept and tools for the study of Anukta Vyadhi (Unexplained and newly emerging diseases).

17. Understanding the concept of karmaja vyadhi

**PAPER – III**

**PARIKSHA VIGYANA**

1. Introduction to Clinical methods and technique for the study of clinical examination

2. Importance of medical history taking and its importance in clinical medicine.

3. Aims, Objectives and Methods, applied aspects and importance of various Rogi and Roga Pariksha as per classics.


5. Interpretation of Charakokta trividha pramana pariksha and Sushrutokta shadvidha pariksha with clinical methods mentioned in modern medicine.

6. Interpretation and use of ashtasthana nirikshana along with use of current tools as per Ayurveda. PG Final Year Syllabus-34
7. Charakokta dashavidha and Sushrutokta Dwadashavidha pariksha along with the use of modern supportive tools for understanding of rogibala and roga bala concept to derive chikitsa sutra
8. Ayurvedic interpretation of all relevant findings of modern clinical examinations, various Laboratory and other Diagnostic tools.
10. Concept of Good clinical practice in Ayurveda and modern medicine.
12. Knowledge of Ancillary common laboratory investigations for diagnosis of diseases, their methods, normal and abnormal values, factors influencing values and their Ayurvedic interpretations & clinical significance as mentioned in practical syllabus.
13. Importance of Bio markers and their utility in clinical researches
14. Update knowledge of emerging diagnostic tools and technologies.
15. Knowledge of various Ayurvedic diagnostic softwares/programmes available.

**PAPER – IV**

**VIKRITI VIGYANA AND JIVANU VIGYANA**

1. Introduction to pathology and technique for the study of pathology
2. Cell injury and cellular adaptations
3. Immunopathology including amyloidosis and its interpretation with the concept of Ojas vis-à-vis Bala
4. Concept of Shotha versus Inflammation, oedema and healing
5. Derangement of Homeostasis and Hemodynamic disorders
6. General character and classification of Neoplasia
7. Upasargajanya Vyadhi (Communicable diseases)- Romantika – Masurika – Upadamsha – Phirang and introduction to Syphilis, AIDS, Leprosy, Tuberculosis
8. Detail study of Krimi Vigyanam versus infectious and parasitic diseases along with their mode of infection and life cycle
9. Concept of Snayuka, Shleepada and introduction to Filariasis and classification of common parasites.
10. Concept and applied aspects of Janapadodhvamsa and Environmental diseases
11. Nutritional disorders
12. Concept of genetic diseases and its interpretation in terms of Bija dosha
13. Knowledge of common Bacteria, Virus, Parasites, Fungi and their classification with their disease processes, Nutrition requirements, media and methods for culture and sensitivity

**PRACTICAL DEMONSTRATION AND HANDS ON EXPERIENCE**


**BEDSIDE PRACTICAL /CLINICAL METHODS**

1. Expertise in clinical methods (General and Systemic Examination). 2. Practical knowledge of examination of Roga based on Pancha Nidan. 3. Practical knowledge of instruments used for clinical examination. 4. Practical records of clinical examination of at least 30 long cases in I.P.D. 5. Practical records of clinical examination of at least 50 short cases. 6. Practical knowledge of ECG, USG and Imaging techniques and their clinical interpretation 7. Understanding of various Ayurvedic diagnostic softwares/programmes available like Ayu soft, Rudra, Ayut Nidana etc. PATTERN OF EXAMINATION Name of Paper Hours of training Marks Paper I 100 100 Paper II 100 100 Paper III 100 100
100 100 Paper IV 100 100 Practicals: Hospital/Laboratory duties at least 4 Hours per day Total 200 
Observation Diary 10 Laboratory record 10 Short Case (including Case Record) 20 Long Case 
(including Case Record) 30 Laboratory Work 40 Thesis Presentation 40 Viva Voce 50 REFERENCE 
BOOKS 1. Charaka Samhita with Various Commentaries 2. Madhava Nidana with various 
commentaries 3. Abhinava Vikriti Vigyan - Acharya Raghuvir Prasad Dwivedi PG Final Year 
15. Ayurvediya Nidan Evum Chikitsa Ke Siddhanta - Prof. Ram Harsh Singh 16. Relevant portions of 
18. Parameswarappa’s Ayurvediya Vikriti Vigyan - Dr. P. S. Byadgi. and Roga Vikriti Vigyan 19. Nidan 
Diagnosis in Ayurveda in - Vaidya Vasant Patil Roga Nidana and Vikriti Vigyan 22. Oxford 
Handbook of Clinical Examination - Oxford Handbooks and Practical Skills 23. Symptoms & Signs in 
Part- I & II - Kundu 26. Practical Pathology - Dr. K. Uma Chaturvedi 27. Medical Laboratory 
Technology - R. Sood 28. Clinical Diagnosis and Management by - Todd, Sanford and Davidson 
Laboratory methods 29. Robbins Basic Pathology - Kumar, Abbas, Fausto at 30. Text Book of 
Pathology - William Boyds. 31. Text Book of Pathology - Harsh Mohan 32. Text Book of Pathology - 
Dey and Dey 33. Text Book of Parasitology - Ramnik Sood 34. Clinical Pathology and Bacteriology - 
S.P. Gupta 35. A Text Book of Microbiology - Ananthanarayana, Panikar

PG Final Year Syllabus-37 9.
PRASUTI TANTRA- STREE ROGA
PAPER – I

Garbhagarbhini Vigyan

1. Applied anatomy of female Genito urinary system, pelvis and Pelvic floor. Pelvic assesment and 
foetal skull.

2. Physiology, neuro endocrinology and pathology of puberty and Neuroendocrine control of 
menstrual cycle.. Artava, Rituchakra, Streebija, Pumbija.


5. Bija – Bijabhaga – Bijabhagavayava janya garbhangaa vikruthi. Genetics, Birth defects and other teratologic abnormalities


8. Garbhasankhya nirnay, Bahu apatyata, Multiple pregnancy.


11. Jataharini related to garbhini avastha

12. Evaluation of Foetal and maternal health in complicated pregnancies by making use of diagnostic modalities.

PAPER – II
Prasava – Vigyan Prakrit prasav

PAPER – III
Stree Rog vigyan
1. Disorders of menstruation and Female reproductive system. A) Congenital malformations of female genital tract B) Artav dushti, artava vriddi, artava kshaya, asrigdara, anartava, and kashtartav. C)

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


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

8. Study of modern diagnostic techniques and Investigations.

9. Important drugs used in Streerog.

10. Panchakarma in streerog


**PAPER – IV**


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KAUMARBHRITYA-BALA ROGA

PAPER – I

Bija, Garbha Vigyaniya (Human Genetics, Embryology) Marks: 100 A. Prakrita Bija-Bijabhaga-Bijabhagavayava evam Tadjanya Vikriti (Genetics and related disorders)

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


PAPER-II

Navajata Shishu Vigyan evam Poshana Marks: 100 PART-A

1. Navajata Shishu Paribhasha, Vargikarana (Important definitions and classification related to neonates.)
2. Navajata Shishu Paricharya evam Prana-Pratyagamana (Care of the newborn including recent methodology for the resuscitation)

3. Samanya Navajata Shishu Paricharya (General Neonatal Care –Labour room onwards)

4. Samaya purva evam Samaya pashchat Jata Shishu Paricharya (Management of preterm, post term and IUGR newborn)

5. Prasava Kalina Abhignahata Vyadhi (Birth injuries): Upashirshaka (Caput , cephalohematoma), Bhagna (Fractures), Mastishkantargata Raktasrava (ICH, IVH, Subdural hemorrhage)


**PART-B**


9. Navjata Kshudra Vikara (Minor neonatal ailments): Chhardi (Vomiting), Vibandha (constipation), Udara shul (Infantile colic), Puya Sphota (Pyoderma), Shishu Netrabhishyanda (Ophthalmia neonatorum).

10. Sadyojatasya Atyayayika Chikitsa (Management of neonatal emergencies): Shock, Fluid and electrolyte imbalance, Convulsion, Hemorrhagic diseases of Newborn etc.

11. Procedures: Shiro-Pichu, Abhyanga, Parisheka, Pralepa, Garbhodaka Yamana (Stomach wash), Ashchytota Neonatal resuscitation techniques, Blood sampling, Intravenous canulation, Umbilical vein catheterization, Bone marrow aspiration, Phototherapy, Naso-Gastric tube insertion, Urethral catheterization, Exchange blood transfusion, Thoracocentesis, Bone marrow infusion, Lumbar puncture

12. Nutrition: A. Navjat Shishu Ahara (Neonatal feeding): PG Final Year Syllabus-44 1. Specific Feeding methodology as per Ayurveda and recent advances; Day to day fluid, milk, caloric requirement for the newborn, feeding technique for the preterm baby. 2. Stanyotpatti and Prasruti (Lactation physiology), Stanya Samghatana (Composition of breast milk), Stana Sampat (Characteristics of normal breast), Stanya Sampata evam Mahatva (Properties & importance of pure milk), Stanya-Piyusha (Colostrum); Stanya-Pana-Vidhi (Method for breast milk feeding), Stanyakshaya / Stanyanasha (Inadequate production and absence of breast milk), Stanya parikshana
(Examination of breast milk), Stanyabhave Pathya Vyavastha (Alternative feeding methods in absence of breast milk), Various feeding methods, TPN (Total Parenteral Nutrition) 3. Stanyadosha (Vitiation of Breast milk), Stanya Shodhana (Purification of breast milk), Stanya Janana and Vardhanopakrama (Methods to enhance breast milk formation) 4. Dhatri (Wet nurse): Dhatri Guna and Dosha (Characteristics of Wet nurse), Concept of Breast Milk Banking. 5. Lehana (Elucturies) B Bala-

PAPER-III
Balrog (Pediatric Disorders) Marks: 100

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

9. Antahsravi evam Chayapachayajanya Rog (Endocrine and Metabolic disorders) PG Final Year Syllabus-45


11. Krimi evam Aupsargika Rog (Infestations and Infections): Krimi (Giardiasis and intestinal helminthiasis, Amoebiasis) Common bacterial, viral infections with special reference to vaccine-preventable diseases: Rohini (Diphtheria), Whooping cough, Aptanaka (Tetanus including neonatal tetanus), Romantika (Measles), Karnamula Shotha (Mumps), Rubella and Masurika (Chickenpox), Anrika Jwar (Typhoid and Paratyphoid), Viral Hepatitis,; Vishama Jwar (Malaria) and Kala-azar, Dengu fever, HIV (AIDS), Poliomyelitis, Mastishkavaran Shotha (Meningitis), Mastishka Shotha (Encephalitis), Chickengunia

12. Tvaka Vikara (Skin disorders): Ahiputana (Napkin Rashes), Shakuni (Impetigo), Sidhma, Pama, Vicharchika, Charmadal (Infantile atopic dermatitis), Gudakutta.


15. Atyayika Balarog Prabandhana (Pediatric emergency management): Shock and Anaphylaxis, Fluid and electrolyte management, Drowning, Foreign body aspiration, Status epilepticus, Acute hemorrhage, Acute renal failure, Febrile convulsion, Status asthmaticus, Burn, Acute Poisoning


17. Life Style disorders

PAPER-IV

Kaumarabhritiya in Ancient Classics and recent Advances Marks: 100

1. Significant contributions of Kashyapa samhita, Arogya raksha Kalpadrum and other texts/treatises of Ayurveda such as Harita Samhitain the field of Kaumarabhritiya including relevant parts from Brihatrai


3. Update knowledge of clinical pediatrics including recent researches in Kaumarabhritiya.

4. Fundamentals of Hospital management with special emphases on Pediatric Ward. Practical/ Clinical Exposure for (Record of exposures to be produced at the practical examination) 1. Full term, preterm, post term new born baby care 2. Practical procedures like – phototherapy, premature baby care, KMC,

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KAYACHIKITSA

PAPER- I

Fundamentals of Kayachikitsa 100 marks
2. Interpretation of common investigations: ECG, Echo cardiography, TMT, Spirometry, Xray, USG, CT-Scan, MRI, EEG, EMG, in different pathological conditions.
4. National Health Programmes and prospective role of Ayurveda services and therapeutics in them. 5. Medical ethics, Common laws and regulations applicable to clinical practice.
6. Elaborate knowledge of undertaking common medical procedures like Ryle’s tube feeding, tapping, transfusions, catheterization, tractions.

PAPER – II
Samanya Roga Chikitsa 100 marks
Nidana/ Chikitsa including Nidana Parivarjana, Pathya, Apathaya, Chikitsa siddhanta, Shamana, Shodhana, Panchakarma, Rasayana and Atyayika Chikitsa (Anupana, Drug/Nondrug) as per Ayurvedic and conventional therapeutics of following Srotogata vyadhi:
1. Pranavahasrotas: Shwasa, Hikka, Kasa, Rajayakshma, Hridroga, Parshwashoola, Urakshata, Svarabheda Cardio-respiratory system: Bronchitis, Bronchiactasis, Bronchial asthma, COPD, Corpulmonale, Pneumonias, Occupational lung diseases, Pulmonary tuberculosis, Congenital Heart disorders, IHD, RHD- Valvular diseases, Cardiac failures, Cardiomyopathy, Pericarditis, Endocarditis, Hypertension,,
3. Udakavahasrotas: Trishna, Shotha, Udararoga, water and electrolyte imbalance
5. Raktavaha Srotas: Raktapitta, Kamala, Vatarakta, Kushtha, Kshudraroga, Sheetpitta, Udarda, Kotha, Visarpa, Shvitra. Haemopoeitic disorders, Bleeding and Coagulation disorders, Leukaemias, Thrombocytopenia, Disorders of Bone Marrow, Hepatobiliary disorders, Hepatitis, Cirrhosis, Cholecystitis, Liver abscess, Jaundice, Dermatological disorders, Parasitic, Infective, Allergic, Autoimmune skin disorders, Eczemas,
7. Asthi-Majjha vahasrotas: Asthikshaya, Sandhigatavata, Osteoarthritis, Osteopenia
8. Shukravahasarotas: Such as Kalibya, Dwajabhanga. Impotence
9. Mutravahasrotas: Mutrakricchra, Mutraghata, Ashmari, Urinary disorders: UTI, Lithiasis, ARF, CRF,Uraemia, BPH.
10. Purishvaha srotas: Atisara, Pravahika, Anaha, Adhamana, Krimi, Udavarta, Enteritis, Dysenteries,
Ulcerative colitis, IBS, Worm infestation.

**PAPER – III**

**Vishishta Roga Chikitsa** 100 marks.


**PAPER – IV**

**Advances in Kayachikitsa** 100 Marks.

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

1. Hospital management strategies, Infrastructure, use of IT technology, essential manpower, equipment, Patient care, management and coordination with contemporary health institutions and field institutions.

2. National Health Campaigns of AYUSH and components under NRHM.

3. Clinical Research in Kayachikitsa and its application in clinical medicine as per new evidence base in different systemic disorders.

5. Role of Ayurveda in immune-protection, immuno-modulation and in management of other allergies and immunological disorders.

6. Indications and importance of Organ transplantation, Ethical and legal issues involved.

7. Knowledge of Geriatric care and terminal care medicine.

8. Basic knowledge of Gene therapy, Stem cell therapy, Genetic modeling and chromosomal disorders in different disease conditions.


10. Scope and methods of independent and collaborative research in Kayachikitsa.

11. Disaster management strategies.

12. Application of advances in Rasayana and Vajikarana therapies


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MANOVIGYAN AVUM MANASAROGA

PAPER-I

Manovyapara Evam Manovigyanam Marks 100

1. Prachya - arvachya matanusara Mano vigyanasya Bhutavidyayah, Amanusha tatha Grahadinam parichaya, setihasa.

2. Prachya arvachya matanusara Manasah Nirupanam-Concept of Manas from Ayurved and modern perspective.

3. Vividha darshan anusara Manasah varnam- concept of mind in various philosophies.

4. Manasah Svarupam – Structure of mind, Manasah Sthanan- Location of mind, Manovishayah- Objects of mind, Manogunah (Anutva and Ekatva) –Attributes of mind- Minuteness and oneness, Manasah Udbhayatmakatvam-Duality of Manas, Manasah Dravyatvam Karanatvam cha- mind as a substance and tool,Manasah Karanadravyatvam-mind as causative substance,Manodoshah- (Rajas and Tamas),Manasah Bhoutikatvam- Elemental nature of Manas Introduction to concept of Buddhi and Ahamkara - intellect and ego, Manasah Ahamkarikatvam –origin of mind from ego (samkhya),Manasah Annamayatvam- Relationship between food and mind,Manasah trigunatmakatvam(Sattva,Rajas, Tamas)- mind and the three major attributes,Manasah jadatvam- inertia of mind, Manasah dhatutvam-mind as a component of living being, Manasah Karma- Actions of Manas.

5. Manovyapara Nirupanam.

6. Manovyapare Pranodana sadhana Bodhakadi Doshanam Sambandhah-Relation of humoral fractions such as Prana, Udana, Sadhaka- Bodhaka in the activity of Manas, Concept of Ojas and Manas

7. Katham prakopayanti ManoDoshah SharirDoshan?- How does manasika Doshas aggravate sharirika Doshas?

8. Indriya panchapanchakam- five factors in relation to the mental faculties.

9. Gyanendriyanam vishayah- the objects of sense faculties.

10. Gyanotpatti prakriyayam Manaso pradhanyam- Importance of Manas in cognitive process.

11. Indriyarthagrahananantaram Manasah vyapara avum gyanotpatou manaso dayitvam - Action of Manas in cognition after reception by respective Indriya.


14. Vayuh indriyanam udyojakah tatha Manasah preranam -Vayu as stimulator of indriya and initiator
of manas.
15. Vakpravrittou Manasah yogadanam - Role of Manas in production of speech.
17. Chikitsya purushah - treatable person (living being).
19. Antah karana chatushtaya (the four internal faculties).
20. Importance of Dhi, Dhriti and Smriti- importance of intellect, retention power and memory.
21. Role of manas in achieving Tri eshana and Chaturvidha Purusharthachatur vargarole of manas in attaining the pursuits and four goals of life
. 22. Concept of Satyabuddhi, Ritambhara Pragya and Upadha- concept of true and false knowledge.
23. Concept of Punarjanma, Purvajanmakrita karma, Karmaphala.
24. Manovaha Srotasam Parichaya– Introduction of Manovaha srotas(channels of mind)
25. Manovaha, Samgyavaha, Buddhivaha, Chetanavaha, Chetovaha, Vatavaha, Raktavaha adi upayukta Srotasam Manasroge varnanam- Description of Manovaha, PG Final Year Syllabus-51 Sangyavaha, Buddhivaha, Chetanavaha, Vatavaha, Raktavaha srotas etc in relation to Manasroga
27. Sattvasara purusha- person with mental excellence.
28. Nidravichara- Concept of sleep, Swapna vichara- Concept of dream, Tandravichara – Concept of drowsiness.
29. Concept of manasprakriti- mental temperament, Concept of Manasa bhava in Shareerika prakriti.
30. Manasaroge Manovigyane cha upayukta Paribhashika shabdanam vishleshanamtechnical terms used in psychology and psychiatry
31. Manas roge upayukta Samhitanam satika adhyayanam- study of portions of treatises useful in psychiatry along with their commentary.
32. Arvachina mano vigyanasya adhishtana siddhantah, mastishka karmanam sthananam cha-Fundamentals of modern psychology and functions of brain.
33. Applied Neuro-anatomy and physiology, Neurotransmitters, Psychoneuro immuno endocrinology
34. Manasah swabhavika pratirodham - Defence mechanism of mind.
36. Bhava, Sheela, Buddhi, Smriti, Prerakatva adinam gyanam -Concept of Mood, behaviour, attitude, emotions, intelligence, memory, motivation, perception etc.
37. Manas Swasthya Evam Manoroganam Paribhasha – Definition of Mental Health and psychiatric
disorders.

38. Manasrogvigyanasya mahatvam, phalam, prayojanam, prabhavashcha

PAPER –II
Manovaikariki Evam Bhutavidya Marks 100

PAPER – III
Manas Roga Chikitsa Marks 100

Comprehensive knowledge of etiology, demography, underlying psycho pathogenesis, symptomatology, complications, investigations, diagnosis, prognosis and drug-non drug management of following psychiatric disorders as per Ayurvedic-Modern therapeutics with their pharmacodynamics:

2. Apasmara - -seizure disorders
3. Apatantraka – hysterical convulsions
4. Tandavaroga -Chorea
5. Yoshapasmara - conversion disorders
6. Atatvabhinivesha- Obsessive compulsive disorders
7. Vishada- Depressive illness
8. Gadodvega -Hypochondriasis
9. Mada, Murchha, Sanyasa- sensorial disorders
10. Madatyaya, Panatyaya (Panavibhrama, Paramada, Panajirna) - Substance abuse disorders.
11. Nidra vikara (Sleep disorders) , Klama, Tandra, Glani.
14. Smriti vikara (memory disorders)
15. Manasika klaibya, Sushrutokta Napumsakata
17. Mood and affective disorders – major depressive disorders, mania and their possible Ayurveda co-relates.
18. Schizophrenia
19. Personality disorders
20. Behavioural disorders
21. Organic mental disorders
22. Post traumatic stress disorders
23. Psycho sexual disorders
24. Eating disorders
25. Somatoform and dissociative disorders PG Final Year Syllabus

26. Senile psychiatric disorders - Dementia, Alzheimer’s disease, Parkinsonism, Menopause, Andropause and their possible Ayurveda co-relates.

27. Adhi- Vyadhi Roganam Manasika Prabhaiva Chikitsa Cha - Psychosomatic disorder-- Bhayaja and Shokaja Atisara, Kamaja and Shokaja Jwara, Tamakashwasa, Prameha, Amlapitta, Parinamashula, Grahani, Uccha Raktachapa(Hypertension), Shula (pain disorders), Twak Vikara.

28. Jirna- Asadhya Sapadrava Vyadhinam Vivechanam – Mental problems in chronic incurable diseases like AIDS, Cancer etc.

29. Mano prakriti vikara – psychopathic personality.


32. Jadata, Buddhimandya , Adhyayana Akshamata – Mental deficiency, mentally challenged and learning disabilities.

33. Achara vaikalya - Conduct disorders

34. Manobhava vikara - Emotional disorders

35. Cerebral palsy, infantile autism, Attention Deficit Hyperactive disorders, Tourette’s disorder with their possible Ayurveda co-relates.

36. Preventive aspects in Manas Roga – Achara Rasayana, Sadvritta, Shodhana, Rasayana and Vajikarana


39. Role of Rasayana, Medhya Rasayana, Achara Rasayana and Vajikarana in Manasa Roga

40. Pathyapathya in Manasa Roga.

41. Manas Rogopayogi Vividha Aushadheenam Vivechanam: Ekamulika (Single drug), Panchavidha Kashaya Kalpana, Rasa Rasayana etc.

42. Brihatrayee, Yogaratnakara, Sharngadhara, Gadanigraha, Bhavaprakasha, Sahasrayoga ukta vividha yoganam vivechanam:Brahmi, Mandukaparni, Vacha, Jatamansi, Yashtimadhu, Shankhpushpi, Kushmanda, Ashwagandha, Kushtha, Tagara, Guduchi, Jyotishmati, Srikhandadichurna,Saraswatakarchurna etc. Swarna, Swarnamakshika Bhasma, Rajata, Praval, Mukta, Manahshila, Krishna Chaturmukha Rasa, Krishnachaturbhuja Rasa, Brihatvatachintamani Rasa,Vata
kulantaka Rasa, Manasmitra vataka, Smritisagar Rasa, Unmada gajakesari Rasa, Apatantrakari vati, Kumarakalyana Rasa etc. Kalyanaka ghrita, Brahmi ghrita, Mahapanchagavya ghrita, Mahapaiashchika ghrita, Mahabhutarava ghrita, Kushmanda ghrita, Purana ghrita, Panchagavya ghrita etc.

43. Saraswatarishta, Ashwagandharishta, Chittachandirasava etc.
44. Himasagara taila, Tungadrumadi taila, Gandharaja taila, Brahmi taila, Sidharthaka agada etc.
45. Dhupa, Nasya, Lepa, Anjana yogas useful in Manas Roga.
46. Folk Medicine in Manasa Roga.
47. Mano Bheshaja vigyanam - Essentials of Psycho pharmacology, Knowledge of Biological and Pharmacological Therapies in the Management of Various Psychiatric diseases such as hypnotics, sedatives, anxiolytics, mood stabiliser/elevators, antidepressants, antipsychotics, anticonvulsants, Electro-convulsive therapy(ECT) and its applied aspects. PG Final Year Syllabus-54

PAPER – IV

Manasa Roge Anya Chikitsa Evam Yoga Marks 100


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RASAYANA&VAJIKARANA PAPER – 1

CONCEPT & PRACTICE OF RASAYANA Marks: 100

1. Basic fundamentals and concepts of Rasayana • Derivation, definition and synonyms of Rasayana • Classification of Rasayana • Understanding rasayana in perspective of: Neutriceutical action Immunomodulation Oxygen free radicals &Antioxidant activity Adaptogenisis Cell proliferative activity Cell regenerative activity Genoprotectiveactivity Micronutrients
Anabolic activity • Interpretation of different types of Rasayana • Prakruti-Guna/character wise Rasayana • Sara wise rasayana • Dhatu specific rasayana • Indriyanusarasayana like netryya, hridya, tvacchya etc. • Srotas wise rasayana • Occupation wise rasayana • Season wise rasayana • Molecular biology concerned to rasayana Human genome project • Genetics and Gene therapy • Stem cell theories • Introduction to Bioinformatics • Concept of Bala, types of bala, vridhikshayaheu. • Knowledge of measures to improve bala • Concept of ojas. Types of ojas. Ojo-vridhhi-kshaya- karabhava. • Ojodustiprakara, hetu, samprapti and their management • Immunology Immune system & components Knowledge of immune mechanisms • Immune disorders • Rasayana as immunomodulator • Rasayana – immune specific/immunoglobulin specific • Rasayana in Immune compromised disease like, HIV/AIDS, tuberculosis, Cancer, liver cirrhosis etc.

2. Concept of jara (geriatrics) and ageing (gerontology)
3. Concept of svabhavabalapravrittavyadhi with special reference to Jara its classification (kalaja&akalaja), etiopathogenesis and management
4. Organ wise, system wise Common geriatric disorders and their management
5. Yogy, ayogya, vidhi and prayaohana of: • Kutipraveshikarasayana • Dronipraveshikarasayana • Karapratichiyarasayana PG Final Year Syllabus-57 • Indraproktarasayana • Vaatatapikarasayana
6. Concept & practice of Achararasayana
7. Knowledge & application of svasthavritta measures
8. Swasthyanuvartakarasayana
9. Rasayana as nutrient supplement
10.Panchakarma and its role in rasayana
11.Application of Kamyarasayanato achieve - Smriti, Medha, Bala, Prabha, Varna, Svara

PAPER – 2
CONCEPTS OF APATYA&SUSANTAANA Marks: 100
1. Etymology, derivation, definition, synonyms of vandhya, vandhyaa, apatya, santaankara, susantaana
2. Importance of fertility
3. Essentials of fertility
4. Knowledge of Garbhasambhavasamagri
5. Knowledge of Garbhhaadananarparcharya
6. Knowledge of Garbhotpatti

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7. Knowledge of Shukravriddhi, kshayahetu, lakshana and chikitsa
8. Knowledge of Shukrapradoshajavyadhi and its management
9. Knowledge of Shukradustihetu, prakara, lakshana, diagnosis and management
10. Knowledge of Retodustiprakara, hetu, lakshana and chikitsa
11. Knowledge of Sukravahasrotodustikarana, lakshana, diagnosis and management
13. Obstructive azoospermia-dagnosis, medical management and knowledge of surgical procedures
14. Retrograde ejaculation and other ejaculatory disturbances in respect to fertility – knowledge, diagnosis and management.
15. Reproductive endocrinal disorders and management
16. Immunological infertility – knowledge of various components involved in immunological infertility, mechanism, diagnosis and management
17. Sperm function tests, semen and cervical mucus interaction, post coital test
18. Knowledge of karyotyping and interpretation
19. Knowledge of chromosomal, genetic disorders pertaining to fertility and management
20. Knowledge and practice of Genetic counseling
21. Knowledge of Normal and abnormal sexual differentiation
22. Applied aspects of panchakarma rasayana and vajikarana
23. Applied aspects of uttarbasti
24. Knowledge of Susantaana (epigenetics): preconceptional measures
25. Knowledge and technique of Pumsavanakarma for healthy progeny
26. Introduction to MART (Medically Assisted Reproductive Technologies): IUI, IVF-ET, ICSI, cloning etc.
27. Testicular biopsy – indications, surgical procedure, interpretation of HPE results
28. Knowledge of cystoscopy – diagnostic, interventional
29. Scrotal scan & Doppler
30. Knowledge of Varicocele: diagnosis, medical and surgical management
31. Knowledge of disorders of accessory sex glands and their management PG Final Year Syllabus-58
PAPER – 3  
CONCEPTS AND PRACTICE OF VAJIKARANA Marks: 100

1. Etymology, derivation, definition, scope and understanding of word vajikarana and its application in present scenario  
2. Physiology of sexual act including mechanism of erection, ejaculation and orgasm  
3. Knowledge of hypothalamo-pituitary-testicular axis  
4. Knowledge of Psycho-neuro-endocrino-vasulogenic mechanism of sexual activity  
5. Knowledge of Haemodynamics and different stages of erection  
6. Psychological aspects of sexual function  
7. Sukrottejakabhava. Factors influencing sexual function  
8. Knowledge of Sukrasrutikarabhava  
9. Knowledge of erogenous zones and lunar relationship  
10. Maithunavidhi –asthangamaithuan, rules and regulations to have intercourse as per ritu, kala, gotra, kula etc.  
11. Concept of Brahmacharya & its application in the present context  
12. Sexual ethics  
13. Myths & misconcepts regarding sex & sexuality  
14. Sex education & counseling including pre-marital counseling  
15. Knowledge of contraception and contraceptives  
16. Knowledge of sukragatavata/sukrasthavatasukravritavata,  
17. Klaibya – definition, nidana, prakara, samprapti, and chikitsa  
18. Male Sexual dysfunctions (etio-pathogenesis, diagnosis & management) a. Disorders of sexual desire (increased libido, decreased libido, no desire etc.) b. Erectile dysfunction (psychological, endocrinological, neurological & vasculogenic) c. Ejaculatory disturbances (early, delayed, anejaculation, retrograde ejaculation) d. Orgasmic disorders (anorgasmia)  
19. Female sexual disorders, causes, diagnosis and management  
20. Knowledge of various sexual postures and advantages  
21. Napumsaka, shanda, trinaputrika, vaarta, hermaphroditism – definition, classification, samprapti, clinical manifestation, diagnosis and management  
22. Knowledge of paraphilia, abnormal sexual behavior, perversions and management  
24. Knowledge of Dhat syndrome, night emissions
25. Mutrasukra, shukrashmari, sukrameha
26. Aharsha&apraharshabhava
27. Knowledge of Sexual performance assessment scales: MSP, GRISS, GRIMS, HARDS, Libido score, IIEF-5 scoring system for ED, Androgen deficiency score

**PAPER – IV**

**PHARMACO-THERAPEUTICS OF RASAYANA&VAJIKARANA**

Marks: 100

1. Definition, derivation, etymology, synonyms of vajikara, vrishya

2. Pharmacology and pharmacodynamics of rasayana and vajikarana drugs


5. Pathya and apathy in relation to shukradhatu

6. Formulation, indications & uses of: Vrishyabasti, Vajikaranaabasti, Yapanabasti


9. Ingredients, properties, indications and phalasruti of: • Agasthyarasayanaa, • Ajamamsarasayanaa • Akarakarabhadivati, • Amrita PrashaGritha, • AswagandhaGritha, PG Final Year Syllabus-60 • AvalgujaRasayanaa • BalaswagandhaTaila, • Bhallathakarasayana, • Brahmarasayana, • Brihatchagalladyagritha • Chandraprabhavati, • Chyavanaprasa, • GokshuradiGuggulu, • HaritakyadiRasayana, • JatiphaladiVati, • Kaminividravana Rasa, • KhadiraRasayana, • KushmandaRasayanaa • Lasunarasayana, • MahamashaTaila, • Makaradhwaja, • NagabalaRasayana, • NarasimhaRasayanaa, • PippaliVardhamanaRasayanaa, • Pippalirasayana, • }
Purnachadrodya Makaradhwaja, • Shatavari Grita, • Shilajathurasayana, • Siddha Makaradhwaja, •
Srigopala Taila, • Vanari Gutika • Vasantakusumakara, • Veeryastambha Vati, • Vidanga Rasayana, •
Vidaryadi Gritha, • Vrishya Gritha

10. Pharmacology & Pharmacodynamics of various vajikara, vrishya and rasayanabasties
11. Neuro-psycho pharmacology of rasayana, vajikarn drugs
12. Endocrinological aspects of rasayana, vajikarana drugs
13. Recent advances in rasayana and vajikarana drugs, formulations and therapeutic techniques

PRACTICALS
1. Assessment of Prakriti
2. Assessment of saara
3. Assessment of manasaprakriti
4. History taking & clinical examination of geriatric patients
5. Examination of male genito-urinary system
6. Semen analysis- Retopariksha
7. Post coital test, semen & cervical mucus interaction test
8. Technique of ICIVAD
9. Uttarbasti
10. Technique of psychosexual counseling
11. Applicatory knowledge of assessment scales pertaining to vajikaranaa/sexual functions
12. Technique of genetic counseling
13. Practical aspects of Panchakarma pertaining to rasayana & vajikarana
14. Technique of measuring penile BP

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SHALYA TANTRA - SAMANYA PAPER - I

Shalya Siddhanta – Fundamentals of Surgery 100 Marks

1. Sushruta’s contributions in surgical concepts and practices.
2. Knowledge of Dosha, Dhatu and Mala Vigyan and their importance in surgical diseases.
3. Significance and importance of Rakta as the Chaturth Dosha.
4. Yantras and Shastras – Surgical Instruments - Ancient and recent advances.
6. Asepsis and Antisepsis.
7. Nirjantukarana – Sterilization – Various methods for surgical equipments, laparoscopes, linen and
   Operation theatre.
8. Surgical infections – Sepsis, Tetanus and Gas gangrene.
9. Care of patients suffering from Hepatitis, HIV-AIDS, STD and other associated infectious diseases.
10. Ashtavidha Shastra Karma – Critical knowledge and their application in surgical practice.
11. Suturing materials, appropriate use of sutures, drains, prosthetic, grafts and surgical implants.
12. Concept of Marma and their clinical application.
13. Shock - Its varieties and management.
15. Concept of Raktastambhana – Haemostasis.
16. Vranasopha – Inflammation and Vidradhi - Abscess
17. Granthi – Cyst and Arbuda – Benign and malignant Neoplasm – Concept of Oncogenesis and genetics of cancer.
18. Gulma and Udara Roga.

PAPER – II

Vishishta Shalya Vigyana - Shalya Tantra Speciality 100 Marks
1. Yogya Vidhi - Practical and Experimental training i. Practice of surgical procedures on different models. ii. Training of Laproscopic and Endoscopic procedures.


PAPER – III

Adhunik Shalya Karma - Modern surgery 100 Marks


2. Diagnosis and Surgical treatment of head and spine injury, thoracic trauma and abdominal trauma. Blast injuries and Management

3. Diagnosis and Surgical management of neck disorders e.g. salivary glands, thyroid, Thyroglossal cyst and Fistula, Branchial cyst and fistula, Cystic hygroma and Lympadenopathies.

4. Diagnosis and Surgical management of breast diseases, Benign and Malignant breast tumours.


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8. Diagnosis and surgical measures for disorders of Artery, Vein, Ligaments, Muscles and Tendons. 9. Diagnosis and surgical management of Hernias – Inguinal, Femoral, Umbilical, Incisional, Abdominal wall and other hernias.

10. Endoscopic procedures - Oesophagastroduodenoscopy, Sigmoidoscopy and Colonoscopy.

11. Diagnostic and therapeutic laparoscopy.


PAPER – IV

Shalya Vangmaya – Shalya literature, Research and Development

1. Thorough study of the Sushruta Samhita including other relevant portions of Brihattrayee and Laghutraree.

2. Knowledge and importance of Surgical Audit.


4. Surgical ethics including Informed consent.


7. Shalya Vigyan (Part 1-2) - Dr. Surendra Kumar Sharma
8. Shalya Samanvaya (Part 1-2) - Vd. Anantaram Sharma
9. Shalya Pradeepika - Dr. Mukund Swaroop Verma
10. Soushruti - Dr. Ram Nath Dwivedi
11. Clinical Shalya Vigyan - Dr. Akhilanand Sharma
12. Bhagna Chikitsa - Dr. Prabhakar Janardhan Deshpande
13. Kshara sutra management in anorectal ailments - Dr. S.K. Sharma, Dr. K.R.Sharma and Dr. Kulwant Singh.
14. Anorectal diseases in Ayurveda - Dr. Sizoria and Dr. Praveen Kumar Chowdary.
15. Adhunika Shalya Chikitsa Siddanta - Dr. Katil Narshingham Udupa
16. Agnikarma Technology Innovation - Dr. P.D. Gupta
17. Shalya Tantra Ke Siddhant - Dr. K.K.Takral
18. Recent advances in the management of Arshas / Haemorrhoids - Dr. P. Hemantha Kumar
19. Arsha Evum Bhagander Mein sutra Avacharan - Vd. Kanak Prasad Vyas
20. Recent advances in Kshara Sutra - Dr. M. Bhaskar Rao
21. Leech application in Ayurveda - Dr. M. Bhaskar Rao
22. Kshara Sutra - Dr. S.N.Pathak
23. Shalya Shalakya Tantra - Vd. S.G. Joshi
24. Surgical ethics of Ayurveda - Dr. D.N. Pande
26. Operative Surgery – Rob and smith
27. Bailey and Love’s Short Practice of Surgery - Norman.S. Williams, Charles.V. Mann and R.C.G. Russell
28. Fractures and Joint Injuries - Watson-Jones
29. Text books of Operative Surgery - Farquharsons’
30. Principles of Surgery - Schwartz
31. Emergency Surgery - Hamilton Bailey’s
32. Surgical pathology - Willing Worth
33. Clinical methods in surgery - S. Das
34. Textbook of Operative Surgery - S. Das
35. Shalya Vigyan (Sachitra) - Anantram Sharma
36. Anushastra Karma - Dr. D.N. Pande
37. Concept of Vrana is Ayurveda - Dr. Lakshman Singh
38. Significance for Poorva Karma in Surgical Patient - Dr. Lakshman Singh PG Final Year Syllabus-
65 39. Sangyaharan Prakash - Dr. D.N. Pande
40. A concise Text Book of Surgery - S. Das
41. A manual on Clinical Surgery - S. Das
42. A System of Surgical Diagnosis - T.N. Patel
43. A Practical Guide to Operative Surgery - S. Das
44. Drugs and Equipment for Anaesthesia - Arun kumar
45. Manual of Surgical Instruments - M.M. Kapur
46. Ward Procedures - Patel Mansukh. B
47. Recent trends in the management of Arshas / Haemorrhoids - Dr. P. Hemantha Kumar
48. Primary Anaesthesia - Maurice King
49. Synopsis of Anaesthesia - Lee
50. Clinical Anatomy/ Surgical Anatomy - John E. Skandalakis
51. Surgical Instruments of the Hindus - Girindharnath Mukopadyay
52. Outline of Orthopedics - John Crawford Adams and David Hamblen. L
53. Outline of Fracture - John Crawford Adams
54. Recent trends in the management of Bhagandara / Fistula-in-ano - Dr. P. Hemantha Kumar
55. Principles and Practice of Agnikarma - Dr. Anand Kumar and Dr. Kanchan Shekokar.
56. Manipal Manual of Surgery - Dr. Rajgopal Shenoy

PG Final Year Syllabus-66 15.
SHALYA – KSHARA EVUM ANUSHAASTRA KARMA PAPER - I
Shalya Siddhanta – Fundamentals of Surgery 100 Marks

1 Sushruta’s contributions in surgical concepts and practices.
2 Knowledge of Dosha, Dhatu and Mala Vigyan and their importance in surgical diseases.
3 Significance and importance of Rakta as the Chaturth Dosha.
4 Yantras and Shastras – Surgical Instruments - Ancient and recent advances.
5 Trividha Karma – Purva, Pradhana and Pashchat Karma and its Importance.
6 Asepsis and Antisepsis.
8 Surgical infections – Sepsis, Tetanus and Gas gangrene.
9 Care of patients suffering from Hepatitis, HIV-AIDS, STD and other associated infectious diseases.
10 Ashtavidha Shastra Karma – Critical knowledge and their application in surgical practice.
11 Suturing materials, appropriate use of sutures, drains, prosthetic, grafts and surgical implants.
12 Concept of Marma and their clinical application.
13 Shock - Its varieties and management.
14 Raktasrava / Haemorrhage – Types, Clinical features and Management.
15 Concept of Raktastambhana – Haemostasis.
16 Vranasopha – Inflammation and Vidradhi - Abscess
17 Granthi – Cyst and Arbuda – Benign and malignant Neoplasm – Concept of Oncogenesis and genetics of cancer.
18 Gulma and Udara Roga.
19 Kshudra Roga.
21 Blood Transfusion – Blood groups, compatibility, Indications, Contraindications and complications with management. 22 Knowledge of antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.

PAPER – II

Vishista Anushastra Karma 100 Marks
1. Kshara Karma and Prayoga – Therapeutic Chemical Cauterization. i. Introduction of different types of Kshara, Method of preparation, Standardization, pH value, Application, Complications and its management. ii. Surgical Anatomy and Physiology of Anus and Rectum. iii. Arshas - Nidana,


**PAPER – III**
**Adhunika Shastra Karma - Modern Surgery 100 Marks**
2. Diagnosis and surgical measures for disorders of vein, artery, ligaments, joints and muscles.
3. Diagnosis and Surgical management of neck disorders e.g. salivary glands, thyroid tumours, etc.
4. Diagnosis and Surgical management of breast diseases.
5. Diagnosis and surgical management of traumatic disorders - Head injury, thoracic and abdominal trauma.
6. Diagnosis and surgical management of diseases of Gastrointestinal system- stomach, pancreas, peritoneum, omentum, mesentery, retroperitoneal space, small intestine, large intestine and vermiform appendix. PG Final Year Syllabus
7. Diagnosis and surgical management of Proctological disorders.
8. Diagnosis and surgical measures of diseases of Hepatobiliary system - Liver, gall bladder, bile ducts and spleen.
9. Diagnosis and surgical management of diseases of Urogenital system.
10. Diagnosis and surgical management of diseases of scrotum and testis. – Hydrocele, Ectopic testis and Undescended testis.
11. Diagnosis and surgical management of Hernias – Inguinal, femoral, umbilical, incisional, abdominal wall and other hernias.
13. Diagnostic and therapeutic laparoscopy.

PAPER – IV

ShalyaVangmaya 100 Marks
1. Thorough study of the Sushruta Samhita including other relevant portions of Brihattrayee and Laghutrayee.
2. Knowledge and importance of Surgical Audit.
3. Value of research and teaching in surgery.
4. Medico legal issues - Understanding the implications of acts of omission and commission in practice. Issues regarding Consumer Protection Act, medical profession, national health policy - Implications in a medico-legal case like accidents, assaults etc.
5. Surgical ethics including Informed consent.
6. Knowledge of different type of experimental Surgical Model for Research in Surgery. Pattern of
Practical examination 100 Marks
7. Case record (25) -10 Marks
8. Short case -10 Marks
9. Long case -20 Marks
10. Identification of specimen / radiograph and Instruments -20 Marks
11. Thesis Presentation -20 Marks

Reference Books
57. Sushruta Samhita
58. Ashtanga Sangraha
59. Ashtanga Hridaya
60. Charaka Samhita
61. The Surgical instruments of the Hindus - Girindranath Mukhopadhyaya
62. Shalya Tantra Samuchchaya - Pandit Ramadesha Sharma
63. Shalya Vigyan (Part 1-2)
64. Shalya Samanvaya (Part 1-2)
65. Shalya Pradeepika - Dr. Mukund Swaroop Verma
66. Soushruti - Dr. Ram Nath Dwivedi
67. Clinical Shalya Vigyan - Dr. Akhilanand Sharma
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74. Recent advances in the management of - Dr. P. Hemantha Kumar Arshas / Haemorrhoids
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81. Text book of Surgery - Sabistan
82. Operative Surgery - Rob and smith
83. Bailey and Love’s Short Practice of Surgery - Norman S. Williams, Charles V. Mann and R.C.G. Russell
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93. Concept of Vrana is Ayurveda - Dr. Lakshman Singh
94. Significance for Poorva Karma in Surgical Patient - Dr. Lakshman Singh
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107. Surgical Instruments of the...
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PG Final Year Syllabus-70 16.

AYURVED DHANVANTRI - ASTHI SANDHI AND MARMAGAT ROGA Paper – 1

ASTHI SANDHI MARMA ABHIGHAT SIDDHANTA 100 marks


Respiratory Distress Syndrome.


11. Knowledge of Orthopedic implants (e.g. wires, screws, plates, nails) and Instruments. Knowledge of equipments (e.g. C-arm image intensifier and drill machines etc).

12. Orthopedic Radiology - Knowledge of Radiological imaging techniques (X-ray, CT Scan, MRI, USG, Radioisotop scanning) in Orthopedics.

13. Medico-legal aspects in Orthopedics - Handling of Medico- legal cases and issuing of MLCs, Understanding the implications of relevant acts e.g. Consumer Protection Act, Motor Vehicle Act, Right to information Act and other relevant acts in force time to time.

14. Concept of Pain according to Ayurved and Modern Medical science.

15. Principles of Reconstruction, Transplantation, Bone grafting, Bone Banking, Bone transportation and Amputation.

16. Knowledge about National Health Policies and relevant guidelines by State Govt. or Govt. of India.

**Paper – II**

**ASTHI SANDHI MARMA GATA VYADHI VIRESHHA 100 marks**


5. Diseases and Congenital anomalies of Spine e.g. Ankylosing spondylitis, Infective conditions, Tuberculosis, Spondylolisthesis, Inter-vertebral Disc Prolapse, Spondylosis, Scoliosis, Kyphosis, spina bifida, Hemivertebra, Block vertebra, Sacralisation and Lumbraisation etc.

6. Diseases and Congenital anomalies of Cervical Spine


8. Diseaeses and Congenital anomalies of Hand

9. Diseaeses and Congenital anomalies of Foot

10. Diseaeses and Congenital anomalies of Limbs

15. Introduction of Peripheral Vascular Diseases.
16. Pediatric Orthopedics
17. Orthopedic Oncology

**Paper – III**

**Abhighata Vigyan – Traumatology 100 marks**

2. Modern concept of Bone and Joint injuries - Etiology, Epidemiology, Classification and General management principles.
3. Individual Bone and Joint injuries - Etiology, Epidemiology, Classification and management principles.
4. External immobilization techniques - Classical and traditional Kusha -splints, Plaster of Paris Technique, Knowledge of different splints and Plasters
5. Pathological Fractures including Fragility fractures, Stress Fractures and Periprosthetic Fractures. 6. Fractures in Children – Etiology, Epidemiology, Diagnosis, management and complications.
7. Prognosis of skeletal injuries, Complications of Fractures and Joint Injuries e.g. Myositis ossificans, Volkman’s ischemic contracture, Compartment syndrome, Crush Syndrome, DVT, Thromboembolism, Fat Embolism.
8. Rehabilitation of trauma patient and Principles of Sukhcestaprachara - Physiotherapy and its use in skeletal injuries
10. Diagnosis and management principles of injuries of Vessels, Nerves, Tendons and Ligaments.
11. Head, Chest and Abdominal Injuries and management principles.

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Campbell’s Operative Orthopedics Vol. I – IV A Concise Text Book of Surgery (S. Das) Pye’s Surgical Handicraft Clinical Methods in Surgery (Sriram Bhatt) Clinical Methods in Surgery (S. Das) Operative Surgery (S. Das) Schwartz Principles of Surgery Surgical Exposures in Orthopedics - J.B. Lippincott Comp. Publication Pattern of Practical Examination 100 marks • Discipline and regularity 10 Marks • Bed side examination Short case 10 Marks Long case 20 Marks • Identification of specimen / instruments/Radiographs 10 Marks • Dissertation Presentation 25 Marks • Viva –Voce 25 Marks PRACTICAL TRAINING • Training of History taking, bed side clinical examination and case presentations. • Identification and demonstration of surgical instruments. • Training of orthopedic related Diagnostic imaging techniques. • Training of Local anesthetic techniques in orthopedics. • P.G. Scholar shall develop the skills by observing, assisting and performing independently the following procedures: o Non-operative Manipulative reductions and external immobilization techniques. ♦ Application of POP cast, Splints and Braces. ♦ Bandaging Techniques ♦ External medicaments and Procedures like Snehana, Swedana, Vasti, ♦ Kati Vasti, Janu Vasti, Gagreeva Vasti etc. • Training in various massage techniques. ♦ Corrective POP casts for club foot ♦ & other congenital deformities o Operative • External fixation of compound fractures • Debridement of crush injuries • Amputations • Internal fixation of common simple fractures • Polio surgery such as TA lengthening • Sequestrectomy in chronic osteomyelitis ♦ Biopsy from a mass ♦ Internal fixation of Fractures ♦ • Training in Vrana (Wound) Management techniques. • Practical training of Physiotherapy in orthopedic and trauma patients. • Training of Anu Shalya Karma like Agni Karma, Kshara Karma and Rakta Mokshna in orthopedic disorders. • Orthopedic related Panchakarma Procedures.

PG Final Year Syllabus-74 17.
SANGYAHARAN Paper 1
Sangyahan siddhant avum vangmaya: Literary, Research And Development
• History of Sangyahan and its development in Ayurveda. • Importance of anesthesia in Ayurveda. • Contribution of AAIM and other pioneers in the development of Sangyahan.
• Applied aspects of Ayurveda with respect to sangyahan Vrihattrayee and Laghuttryee.
• Instruments for anesthesia in ancient era and their development.
• Rakta,its importance, Raktadhana and Raktstambhana.
• Knowledge of disorders like Unmada, Apasmara, Mada, Murrcha, Sanyasa and Stabdhata etc.
• Madataya, Stages of Madataya and its management.
• Pharmacology of Medhya, Vednasthapak, Madkari, Sangyasthapak, Nidrajanan, Akshepjanan and shamana , Svedjanan, Hridayae, Hridayotejak, Raktbharshamak, Shoolprashaman, Vaman and hrillashar
(Antiemetic) dravya as mentioned in Ayurvedic samhita & their application in Sangyaharan.

- Aroma therapy as complementary and alternative therapy in pain management and Palliative care.

Paper 2 Sangyaharan Bhashaja Vigyan (Pharmacology related to Anesthesia) Pharmacology of:

- Drugs acting on Autonomic nervous system: a. Cholinergic system and drugs- Agonist and antagonist b. Adrenergic system and drugs- Agonist and antagonist
- Autocoids and related drugs: a. Histamine and Antihistaminic b. 5HT and antagonist c. NSAID’S d. Prostaglandins and leukotrienes
- Drugs acting on Respiratory system

Paper 3 Vishishta Sangyaharan – Applied Anesthesia

- Airway management- Intubation, failed intubation drill, LMA, Bag and mask ventilation. PG Final Year Syllabus-75
- Anesthesia For: General surgery, Obstetric and Gynecology, E.N.T. and Ophthalmic, Orthopedic, Dental, Pediatric, Urology, plastic and Outpatient / Day care surgery.
- Anesthesia for patients with: Diabetes mellitus, Thyroid diseases, inherited metabolic diseases, Obesity, Respiratory diseases, Cardiac diseases, Renal diseases, Geriatric problems and neuromuscular diseases. • Regional anesthesia
  : • Sub-arachnoid and epidural anesthesia, analgesia.
  • Plexus and nerve blocks for upper and lower limb
- Regional anesthesia for thorax and abdomen • Surface anesthesia, infiltration and field blocks
- Complications of Regional and general anesthesia, morbidity, mortality and medico-legal aspects. • Anesthesia for Endoscopic, laparoscopic Surgery and Laser Surgery
- Anesthesia for Trauma and mass casualty • Emergency anesthesia. Paper 4 Monitoring Advances and Research in Sangyaharan a. Monitoring in anesthesia:
  • Cardiovascular, Respiratory, Renal function, Neurologic and neuromuscular monitoring.
  • Peri- operative Thermo- regulation and monitoring
  • Peri- operative awareness and monitoring depth of anesthesia with BIS.
  • Peri- operative acid-base balance
- Pt’s positioning in anesthesia, its hazards and management
• Peri-operative Fluid management and Blood transfusion.
• Risks and hazards of anesthesia b. Anesthesia equipments –
• Medical gas systems • Breathing systems • Ventilators • Anesthesia machine c. Post operative management- • Post anesthesia care • Post operative nausea and vomiting • Post operative Intra-Venous fluid therapy • Acute post operative pain d. Misallaneous-
• HDU,ICU, CCPR- BLS & ACLS.
• Parenteral nutrition.
• Environmental factor and electrical safety e. Management of Acute / Chronic Pain:
• Assessment of pain
• Peri-operative pain,
• Chronic pain syndrome-detection and prevention,
• WHO regime for Cancer pain,

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AYURVEDA DHANWANTRI-SHALAKYA - NETRA ROGA
Theory Four papers of- 100 marks each Practical and Viva-voce - 100 marks

PAPER- I
Netra Rog Vangmaya
2. Critical analysis of the available literature of netra roga vigyana in the above given classics e.g. Puyalasa and Vatahata Vartma In Sushruta samhita and Vagabhat samhita.
3. Unique/ specific contribution of different classics, Acharyas and commentators in the development of Netra roga vigyana.
5. Update chronological development of Netra roga vigyana right from Vedic period.

PAPER- II
Ayurvediya Netra Rog Vigyan
1. Enumeration and classification of Netra Rogas.
2. Descriptive knowledge of etiology, pathogenesis, prodomal symptoms, clinical features, complications and prognosis of pakshma -vartma- sandhi- - shuklaKrisha- dristi & sarvagata rogas along with exogenous eye diseases available in Ayurvedic classics. Medical and surgical Management of the above diseases with special skill development in Ashtavidha shastra & Trividha Anushastra chikitsa related to Netra roga.
3. Netra kriya kalpa procedures like seka, ashchyotana, vidalaka, pindi, tarpan, putapaka & anjana and their practical application and analysis based on ocular pharmacology. Standard operative procedures for Kriyakalpas including Aushada kalpanas.
4. Study of nayanabhighata and , its management and prevention.
5. Knowledge of preventive and community ophthalmology along with national programme for control of blindness and role of Ayurveda.
6. Ayurvedic Concept of Congenital, developmental and neoplastic diseases of netra.
PAPER – III
Adhunik Netra Rog Vigyan
1. Knowledge and application of current diagnostic techniques and equipments and therapeutics in Ophthalmology.
2. Detailed study of refractive errors along with defects of accommodation and their management.
3. Detailed knowledge of classification, etiology, pathogenesis, signs and symptoms, differential diagnosis, prognosis and complications of diseases of eye orbit, lacrimal apparatus, lids, conjunctiva, cornea, sclera, uveal tract, lens, vitreous, retina, optic nerve and visual pathway with comprehensive knowledge of their medical and surgical management.
4. Ocular trauma, its emergencies and management.
5. Ocular motility disorders and their medical and surgical management
6. Neurological and systemic disorders affecting the eyes and their management.

PAPER – IV
Recent Advances in Netra Chikitsa & Ophthalmology.
1. Update advances in the development of Ayurvedic drug formulations, therapeutic procedures and treatments of Netra roga. PG Final Year Syllabus
3. Advanced technologies & techniques in the medical & surgical management of Netra roga.
5. Detailed study of recent research works on chakshushya dravyas.
6. Comparative and critical study of modern advances in surgical techniques over the surgical methods described in Ayurvedic classics Pattern of practical/Clinical training 1. Posting in OPD,IPD,OT & Kriya kalp Kaksha. 2. Case presentation, clinical discussion, Seminars & Workshops. 3. Skill development in Ashtavidha shastra karma, Trividha Anushastra Karma and Modern Ophthalmic Surgical procedures viz lid surgery, pterygium surgery, cataract surgery, squint surgery, glaucoma surgery, DCR & DCT ect. Methods of Training • Intensive integrative training would be imparted to scholars in understanding the classical Ayurvedic aspects with an emphasis of critical comparative interpretation. • Mandatory participation of scholars in seminars, group discussions, clinical demonstrations, journal review meetings, case study, continuing education activities and research clinical projects. • During the first year course the emphasis would be laid to impart adequate knowledge on fundamental aspects and their applications, with a focus on latest diagnostic tools, instrumentations and laboratory procedures. Practical orientation and hospital based clinical training is

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AYURVEDA DHANWANTRI- SHALAKYA - SHIRO- NASAKARNA EVUM KANTHA ROGA PAPER – I
Shiro- Nasa- Karna - Kantha Roga Vigyan Maulik Siddhanta and Vangmaya

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1. Detailed study of Shalakyatantra from Bruhat trayee, Laghutrayee, Kashyap samhita, Yoga ratnakar, Chakradutta, Bhel samhita, Harita samhita and other granthas.

2. Comparative and critical study of rogas explained by various granthas.

3. Syntactical derivation, definition and importance of the word “Shalakya”. Sequential development and history of science of ear, nose, throat and Shiras disorders. Establishment of “Superiority of shiras” among the organs. Determination and importance of the verse ‘Nasa Hi Shiraso Dvaram’. Syntactical derivation and the synonyms of the words Karna, Nasa, Kantha, Shiras etc.

4. Descriptive knowledge of the anatomy and Physiology of ear, nose, throat and Shiras as per ancient and modern science.

5. Examination of the ear, nose, kantha and shira as per Ayurveda and modern science.


7. Importance of shaman and sodhana therapy in ear, nose, throat and shira disorders with general introduction to local therapeutic procedures of ear nose and throat and shira e.g. kaval, gandusha etc. Detailed applied knowledge of recent advanced diagnostic and therapeutic techniques and equipments (Yantra and Shastra) used for ENT and Shira disorders.

9. General knowledge of ‘vrana bandhana’ (bandaging of wounds) and applied bandage in ear etc. 10. Update chronological development of ENT from Vedic period.

11. Study of essential modern drugs, anaesthetic agents of diagnostic and surgical importance.

PAPER – II

Ayurvediya Shiro – Nasa - Karna - Kantha Roga Vigyan

1. Examination of the ear, nose, throat and shira patients.

2. Karna-Nasa –Kantha –and Shira rogas samkhya samprapti, descriptive knowledge of etiology, pathogenesis, prodromal symptoms, classification, clinical features, Upasaya-Anupsaya(prognostic measures) sadhyasadhyatwa and, complications of ear disorders described in the classics of Ayurved. Detail description along with practical orientation of their management.


4. Kantha rogas samkhya samprapti, descriptive knowledge about etiology, pathogenesis, prodromal symptoms, classification, clinical features, Upasaya- Anupsaya (prognostic measures),sadhyasadhyatwa and complications of kantha diseases described in the classics of
Ayurved. Detail description along with practical knowledge of treatment.

5. Shira and Kapala (cranial vault) disorders samkhya samprapti, descriptive knowledge, etiology, pathogenesis, prodromal symptoms, classification, clinical features, Upasaya Anupsaya (prognostic measures) and complications of Shira and kapala diseases described in the classics of Ayurved. Detail description along with practical knowledge of treatment.

PAPER – III

Adhunika Shiro- Nasa- Karna - Kantha Roga vigyan

1. Descriptive knowledge of instruments and recent equipments available for diagnosis of ear – nose – throat – head disorders along with their practical application.
2. Descriptive knowledge of etiology, pathogenesis, clinical features, differential diagnosis, classification along with complications of different ear – nose – throat and PG Final Year Syllabus head disorders. Detail knowledge of the treatment (including conservative and surgical) of the above mentioned disorders.
3. Imaging in ENT and Head disorders, detailed knowledge of LASERS, radiotherapy, chemotherapy and other recently advanced treatment modalities like speech therapy, cochlear implant, rehabilitation of the deaf and mute, etc. related to ear – nose – throat – and head disorders.

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

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

6. Removal of foreign bodies in the ear nose throat and shira as per Ayurveda and modern science.

7. Karna-Sandhan Nasa-Sandhan, fundamental and applied aspects of Ayurveda. Methods of Training
   • Intensive integrative training would be imparted to scholars in understanding the classical Ayurvedic aspects with an emphasis of critical comparative interpretation.
   • Mandatory participation of scholars in seminars, group discussions, clinical demonstrations, journal review meetings, case study, continuing education activities and research clinical projects.
   • During the first year course the emphasis would be laid to impart adequate knowledge on fundamental aspects and their applications, with a focus on latest diagnostic tools, instrumentations and laboratory procedures. Practical orientation and hospital based clinical training is an integral part of the curriculum all through.
   • In the second year, training would stress upon extending the knowledge on techniques and imparting skill for surgical performance, ENT procedure based therapies, surgical/para surgical procedures so that the scholar is able to perform ENT surgical procedures independently.
   • In the third year the scholar should concentrate on the clinical work and research work based on the dissertation.
   • The participation of the scholars in all the aspects of educational process is mandatory.

Hospital postings – The student has to work for 6 terms of resident posting is compulsory out of which first 2 postings will be as a junior resident and the next four postings will be as a senior resident.

The student should also develop in the academic work of the department. PG Final Year Syllabus-83 Pattern of Practical Examination:

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

Reference Books:
1. Sushrut Samhita
2. Charak Samhita
3. Ashtang Hridaya
4. Ashtang Samgraha
5. Laghutrayi
6. Modern books related to ENT disorder
7. Diseases of Nose Throat and Ear - Bhargav Shah
8. Diseases of Nose Throat and Ear, Head and Neck EB Edr.
10. Text book of Ear Nose Throat diseases – Dhingra
12. Logan Turner’s book on ENT
13. Ballengers text book of ENT
14. Kumin’s text book of ENT
15. Rob Smith’s book of ENT surgery
16. Paprella’s book of ENT
17. Hazarika’s text book on ENT
18. Books on examination of ENT
19. Audiology Anirwan Biswas
20. Kurt’s Audiology
21. Books on Speech therapy

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AYURVEDA DHANWANTRI-SHALAKYA - DANTA EVUM MUKHA ROGA

PAPER – I Danta evum Mukha Roga – Ayurveda Siddhanta and Vangmaya Marks 100
1. Etymology, definition and importance of the word ‘Shalakya’, History and development of the science of oral and dental diseases. Etymology and synonyms of the word ‘Mukha’ and ‘Danta’. Ancient and recent knowledge of anatomy of oral cavity and teeth along with the knowledge of salivary glands.
2. Detailed study of Oral cavity and gustatory physiology.
3. Oral hygiene, Social aspect of oral hygiene, preventive measures in oral cavity diseases, general etiology, pathogenesis, prodromal symptoms, clinical features and general management of oral cavity diseases.
5. Applied and detailed study of therapeutic measures for oral and dental disorders, like Kavala, Gandusha, Dhumapana, Nasya, Murdhetaila Mukhalepa and Pratisarana and their definition, types, indications, contraindications, procedure, features of proper, excess, deficient application and their management.
6. Importance of shodhan and shaman treatment in oral and dental diseases and knowledge of common recipes useful in oral and dental diseases.
7. General introduction of four types of treatment (Bheshja, Shastra, Kshara, Agni). Detail description of Anushastra karma; their practical knowledge in oral and dental diseases.
8. Analytical determination of related subjects of danta-mukha disorders available in ancient and modern commentaries of different Samhita.

PAPER – II
Ayurvediya Danta evum Mukha Rog Vijnana Marks 100
1. Examination of oral cavity, periodontia and teeth. Teeth eruption and its systemic disturbances in a child, Classification, Number of teeth along with detail knowledge of abnormal tooth eruption. Dental disorders in paediatric age group, their prevention and treatment.
2. Danta gata rogas - Dental diseases detailed in the classics of Ayurved; their etiology, pathogenesis, prodromal symptoms, clinical features, complication and applied approach in the treatment of dental diseases.
4. Oshtha (lip), Jihva (tongue) and Talu (palate) Rogas, detailed study of etiology, pathogenesis, prodromal - symptoms, clinical features, complications and, prognosis. Detailed description of their
treatment along with practical orientation.
5. Sarvasara Mukharogas (Generalized oral diseases) available in ayurvedic classics. Detailed study of etiology, pathogenesis, prodromal-symptoms, clinical features, complications, prognosis and management of mukha rogas along with practical orientation.
6. Knowledge of Dantabhighbata (dental trauma) and Mukhabhighbata (oral injury) along with diagnostic and referral skills.

PAPER – III
Adhunik Danta evum Mukha Rog Vijnana Marks : 100
1. Detail study of etiology, pathogenesis, clinical features, classification and complication of various oral and dental diseases available in literature of Modern sciences. Detail study of their recent available medical therapeutics.
2. Detail description of diagnostic technology in the diagnosis of oral and dental disease.
3. Study of essential modern drugs, anaesthetic agents of diagnostic and surgical importance. PG Final Year Syllabus-85
4. Descriptive Knowledge of up-to-date available modern instruments and their application for examination, diagnosis and management of oral, periodontal and dental diseases.
5. Up-to-date knowledge of applied and available surgical procedures indicated in various dental diseases like tooth extraction, RCT, Dental filling, filling materials, tooth fixation and tooth implants etc.

PAPER – IV
Danta evum Mukha Rog Vijnana & Dentistry Marks – 100
1. Jaalandhara Bandha, its importance and application in Tooth extraction without anaesthesia.
2. Vishishta Upadanta parikalpana (Dental Material and Prosthesis).
3. Recent Research studies and advanced clinical applications of Kriya Kalpas in Danta and Mukha Rogas.
4. Detailed study of recent available medical therapeutics and Research studies in Dental and oral cavity disorders.
5. Advanced diagnostic technology in Dentistry and oral pathology.


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


7. Orthodontics the Art and Science - Dr. S.I. Bhalajhi
8. Text book of Pediatric Dentistry - Dr. S.G. Damle
10. Clinical Periodontology - Dr. B.R.R. Varma
11. Anatomy for Dental Students - Inderveer Singh
12. Clinical Periodontology - Carranza , Newman
13. Operative Dentistry - M A Marzouk

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PANCHKARMA PAPER–I

Purva Karma-Snehana and Svedana

1. Panchkarma in Ashtanga Ayurved and Significance of Shodhana
2. Ama and Shodhana, benefits of Shodhana, Samikshya Bhavas in Shodhana,

**PAPER – II**

**Vamana and Virechana Karma Vamana Karma**

1. Etymology, definition and general considerations of vamana
2. Properties of Vamaka and Vamanopaga drugs
3. Knowledge and utility of important Vamaka drugs and their preparations (Vamana Yoga)
5. Indications of Vamana
6. Contraindications of Vamana with reasons
7. Pachana prior to Snehana
8. Detailed knowledge and method of preparation of patient with Snehana
9. Abhyanga and Svedana as Purvakarma of Vamana
10. Diet and management of gap day
11. Need of increasing of Kapha for proper Vamana, Kapha increasing diet
12. Management of Patients on the morning of Vamana
13. Administration of food articles prior to Vamana
14. Drug, time, Anupana, Sahapana, dose and method of administration of Vamana and Vamanopaga preparations
15. Method of Vamana Karma, waiting period for automatic Vamana Vega and manipulation in its absence
16. Observations prior to beginning of Vamana such as sweat on forehead, horripilation, fullness of stomach and nausea
17. Observation and assistance of the patient during Vamana
18. Vega and Upavega of Vamaana and its counting, observations and preservation of vomitus matter and its weighing
19. Samyak, Ayoga and Atiyoga of Vamana
20. Laingiki, Vaigiki, Manaki and Antiki Shuddhi,
21. Hina, Madhya and Pravara Shddhi and Samsajana Krama accordingly
22. Detail knowledge of methods of Samsarjana Krama and its importance
23. Kavala and Dhumapana after vamana
24. Management of Ayoga, Atiyog and Vyapat of Vamana with Ayurveda and modern drugs
25. Parihara Vishaya and Kala for Vamana PG Final Year Syllabus
26. Vamana Karmukata with Pharmaco-dynamics of Vamana Virechana Karma
   1. Etymology, definition and general considerations of Virechana
   2. Importance of Vamana and Virechana as shodhana, Virechana better than Vamana
   3. Necessity of Vamana prior to Virechana
   4. Preparation of patients for Virechana after Vamana
   5. Preparation of patients directly for Virechana
   6. Properties of main Virechaka and Virechanopaga drugs
   7. Classifications of Virechana drugs with definition, example and utility of each type
   8. Indications of Vamana Karma
   9. Contraindications of Virechana with reasons
   10. Utility of Virechana for the specific conditions and stages of the disease
   11. Internal Snehana for Virechana with diet
   12. Abhyanga and Svednana as Purvakarma of Virechana
   13. Management of Patients on the morning of Virechana
   14. Virechana should be performed in empty stomach
   15. Drug, dose, time, Anupana, sahapana and method of administration of Virechana and Virechanopaga preparations
   16. Method of performing of Virechana Karma
   17. Observations during Virechana, Vega and Upavega of Virechana and its counting, observations and preservation of feces and its weighing
   18. Samyak, Ayoga and Atiyoga of Virechana
   19. Laingiki, Vaigiki, Manaki and Antiki Shuddhi of Virechana
   20. Hina, Madhya and Pravara Shddhi and Samsajana Krama accordingly
   21. Detail knowledge of methods of Samsarjana Krama and its importance, and Tarpana krama and its importance
   22. Management of Ayoga, Atiyog and Vyapat of Virechana with Ayurveda and modern drugs
   23. Parihara Vishaya and Kala for Virechana
   24. Virechana a Karmukata with Pharmaco-dynamics of Virechana
   25. Applied anatomy and physiology of Gastrointestinal system related with Vamana and Virechana
   26. Study of Vamana and Virechana related portions in classics with commentaries
   27. Recent advances of researches on the effect of Vamana and Virechana
   28. Scope of research for Vamana and Virechana
   29. Role of Vamana and virechana in promotion of health
prevention and treatment of diseases.

**PAPER – III**

**Basti Karma and Nasya Karma**

1. Etymology, definition and general considerations of Basti
2. Importance of Basti in Kayachikitsa and other branches of Ayurveda
3. Classifications of Basti
4. Drugs useful in Basti
5. Indications of Basti, its role at the various stages of diseases
6. Contraindications of Basti with reasons
7. Description of Basti yantras, Basti netra and Basti putaka and their Doshas. Modified Basti Yantra, their merits and demerits PG Final Year Syllabus-90
8. Dose schedules of Niruha and Anuvasana basti Niruha basti Etymology, synonyms, definition and classifications and subclassifications of Niruha Basti and detailed knowledge of each type of Niruha Basti along with indications and contraindications and benefits Contents of various types of Niruha Basti, their proportions, methods of mixing basti Dravya, Relation of Virechana, Shodhana, Anuvasana Basti with Niruha Basti Purvakarma for Niruha Basti; Pathya before, during and after Niruha Basti; all the aspects of administration of various Niruha Basti Observations during and after Niruha Basti Basti Pratyagamana, Samyakyoga, Ayoga and Atiyoga Lakshana and Various Vyapat of Niruha Basti and their management according to Ayurved and Modern Systems of Medicines Management during and after Niruha Basti Pariharya vishaya and pariharakala, Anuvasana basti Etymology, synonyms, definition and classifications of Anuvasana Basti and detailed knowledge of each type of Anuvasana Basti along with indications and contraindications and benefits Various types of Ghrita and Taila useful in Anuvasana Basti; Anuvasana Basti with Vasa and Majja along with their merits and demerits Relation of Virechana, Shodhana, Niruha Basti, Snehana with Anuvasana Basti Purvakarma for Anuvasana Basti; Pathya before, during and after Anuvasana Basti;all the aspects of administration of Anuvasana Basti including Kala Observations during and after Anuvasana Basti Anuvasana Basti Pratyagamana, Samyakyoga, Ayoga and Atiyoga Lakshana and Various Vyapat of Anuvasana Basti and their management. Management during and after Anuvasana Basti Pariharya vishaya, Pathya and pariharakala for Anuvasana Various combined basti schedules such as Karma, Kala, yoga Basti etc. Detailed knowledge of Matra Basti Detailed Knowledge of different basti formulations like Piccha Basti, Kshira Basti, Yapana Bastis, Madhutailika Basti, Erandamuladi Niruha Basti, Panchaprasrutika Basti, Kshara Basti, Vaitarana Basti, Krimighna Basti, Lekhana Basti, Vrishya Basti, Manjishtadi Niruha Basti, Dashamula Basti, Ardhamatrika Basti, Sarva roghara Niruha Basti.

**PAPER – IV**

**Raktamokshana, Physiotherapy and Diseasewise Panchakarma A. Raktamokshana-33 Marks**

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

7. Pariharya vishaya and Parihara kala

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Chhaya Avum Vikiran Vigyan

Paper-1

Fundamentals of Chhaya Avum Vikiran Vigyan (Radio-diagnosis & Imaging) Part-A
Detail knowledge of principles of Ayurveda and their applied aspects, specially Panch Mahabhuta, Dosh, Dhatu, Mala, Panch Nidan, Prakriti, Shatkriyakaal, Praman, ChhyaPratichchhaya , Prabha, , Rogi pariksha (Trividha, Shatvidha especially Darshan pariksha),their relevance with Chhaya avum Vikiran Vigyan. -Study of Ayurvedic classics and modern Medical Science texts related to Chhaya avum vikiran vigyan - Chhaya avum Vikiran vigyan as a means of Darshan priksha. Part-B • Infrastructure of an ideal Chhaya avum vikiran unit. • Fundamental principles of Chhaya avum vikiran vigyan • Detail knowledge of equipments (yantra) used in Chhaya avum Vikiran Vigyan. • Dark room techniques • Ionizing and non ionizing energies related to Chhaya avum Vikiran Vigyan - relevant hazards, prevention and precautions, their management by Ayurvedic and modern measurements. • Trividh Karma –Poorna ,Pradhan avum Pashchat Karma in Chhaya avum Vikiran Vigyan • Occupational physical disorders of consultants related to Radio-diagnosis and imaging. Paper-2 Applied Anatomy, Physio-pathology and Procedures in Chhaya avum Vikiran Vigyan (Radio-diagnosis & Imaging) Part-
A Applied Anatomy, Physiology & Pathology in Chhaya avum vikiran Vigyan (Radiodiagnosis & Imaging) Detail knowledge of Ayurvedic and Modern applied radiological Anatomy (including sectional), Physiology and Pathology of the human body; 1. Sira(Vessels), Gaurya Sira, (Lymphatic channels), Mansa (Muscles), Snayu (Ligaments), Kandara (Tendons), Sandhi(Joints), Nadi(Nerve), Asthi(Bones), Strotas,Marma, Antahsravi granthi (Endocrine glands) etc. 2. Urdhwa-jatragutagav(Supraclavicular) parts-Kapaal(Skull),Karna(Ears),Chakshu( Eyes), Nasa(Nose), Paranasal sinuses, Lalagranthi( Salivary glands), Face, Greeva(Neck), Sushumna( Spinal cord) and Kaseruka (vertebrae), Mukha(Mouth), Danta(Teeth), Mastulunga(Brain), Lasika granthi( Lymph glands )etc. 3. Koshtha (Trunk) parts-Sushumna( Spinal cord) and Kaseruka( vertebrae). a. Vaksha(Thoracic)parts-Phupphus(Lungs),Hridaya(Heart)&Sira(Vessels), Shwashnalika (Trachea, Bronchi), Annamarg (Esophagus), Lymph nodes, Kooch (Breast), Hridayabandhan ( Diaphragm )etc.
b. Udar(Abdominal) parts- Audaryakalaa (Peritoneum) Aamashaya (Stomach) , Kshudrant (Small intestine), Vrihanadtra (Large intestine), Guda (Rectum and Anal canal), Aantrapuchcha (Appendix) , Yakrit (Liver), Tilam (Gall bladder), Billiary channels, Pleeha (Spleen), Aantrapuchcha (Appendix), Yakrit (Liver), Tilam (Gall bladder), Billiary channels, Pleeha (Spleen), Agnyashaya (Pancreas), Vrikka (Kidney), Gavini (ureter), Basti (urinary bladder), Shishna (penis), Shishna (penis), Paurushgranthi (prostate) , Vrishan (testes), Shukrashaya (seminal vesicles), Dimbhashaya (ovaries), Perineum Garbhashaya (uterus), Yoni, Dimbavahini (fallopian tubes), Lasika granthi (lymph nodes) etc. 4. Shakha - parts of upper and lower extremities. PG Final Year Syllabus - 94 Part – B Procedures in Chhaya avum Vikiran Vigyan (Radio-diagnosis & Imaging) • Various routine and special, non-contrast and contrast radiography, Digital radiography, Radiographic positions and views. • Various Ultra Sonographic procedures - Various diagnostic and therapeutic Ultrasonography [routine, joint study, various Endo-USG, Obstetrics - Garbha vinishchaya (confirmation of pregnancy) , Masanumas Garbh vridddhi (fetal development), Garbha swastha (fetal well being) and Vyadhi (fetal diseases) , Vikrita garbha (congenital anomalies) ] Point (Placenta) , Nabhinadi darshan (umbilical cord), Garbhapattra (abortion) , Apara / Garbhaavayav Apaatan (Retained conceptual products), Gynaecology – Yonivyapat (gynaecological disorders), Bandhyatva (infertility) , Garbhashayabhransha (uterine prolapse) etc. Dopplers USG guided techniques and other advances. • CT, MRI, Radionuclide scanning, PET and other recent advanced procedures in Radio-diagnosis & Imaging. Mammography Bone Densitometry Interventional radiology Paper 3 Physics and Biology related to Chhaya avum Vikiran Vigyan( Radio diagnosis & Imaging) Part – A • Physics of radiography, Digital radiography, Fluoroscopy, their application. • Physics of ultrasonography, its applied aspect related to various U.S.G, Doppler procedures. • Study of contrast materials used in Radio-diagnosis and imaging. Part-B • Physics of CT scan, its applied aspect, efficiency and limitations. • Physics of MRI, its applied aspect, efficiency and limitations. • Physics and its applied aspect related to other imaging procedures e.g. PET, RadioNuclides imaging etc. • Biology related to Chhaya avum Vikiran Vigyan Paper-4th Applied Chhaya avum Vikiran Vigyan (Radio-diagnosis & Imaging) Part-A Applied aspects of radiographic interpretation and reporting of various diseases related to systems, organs (as mentioned in paper-2nd, part-A) and metabolism. Part-B • Applied aspects of Ultrasonography, interpretation and reporting of various diseases related to system, organ (as mentioned in paper-2nd, part-A,) and metabolism, routine joint study, various Endo-USG, Obstetrics - Garbha vinishchaya (confirmation of pregnancy) , Masanumas Garbh vridddhi (fetal development), Garbha swastha (fetal well being, bio-physical profile) and Vyadhi (fetal diseases) , Vikrita garbha (congenital anomalies, 2nd level obstetric USG) . Apara (Placenta) , Nabhinadi darshan (umbilical cord), Garbhapattra (abortion) , Apara / Garbhaavayav Apaatan (Retained conceptual products), Gynaecology – Yonivyapat (gynaecological disorders), Bandhyatva (infertility) , Garbhashayabhransha (uterine prolapse) etc.

SECTION IV

TEACHING & MONITERING LEARNING PROGRESS

1. Seminars

   The seminars shall be held at least once in a week in each post graduate department. All candidates are expected to participate actively and enter the relevant details in the log book. Each candidate shall make at least 5 seminars in each year.

2. Journal club
The journal review meeting shall be held at least once in week. All candidates are expected to participate actively and enter relevant details in log book. The candidate should make the presentation from allotted journals of selected articles at least 5 times in each year.

3. Symposium
   It is recommended to hold symposium on topics covering multiple disciplines.

4. Practicals/Clinical postings for Non-clinical/Clinical PG Courses Each trainee shall work in hospital on regular basis to acquire adequate professional skill and competency in managing various cases to be treated by the specialist.

5. Conducting Lectures-teaching skills
   All the candidates shall be encouraged to take part in the undergraduate teaching programmes either in the form of lecturer or group discussion in their subjects.

6. Conducting/attending Conferences at various levels
   The candidate shall be encouraged not only to attend conference/workshop/advance course but also to present at least one paper at state/national competence during their training period.

7. Continued Medical Education programmes
   Each post graduate department shall organize these programmes on the regular basis involving the other institution. The candidates shall also be encouraged to attend the programme conducted elsewhere.

8. Postings by rotation to other Institutions/Departments
   To bring in more integration between the competence and allied fields each post graduate department shall work out a programme to rotate the candidate in related disciplines.

9. Periodic tests
   In case of degree courses of three years duration, the concerned departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practicals/clinical and viva voce.

10. Work Diary/Log Book
    Every candidate shall maintain a work diary and record his / her participation in the training
programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

The log book is a record of the important activities of the candidates during his training. Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate.

Format for the log book for the different activities is given in tables 1,2 and 3 of chapter 4. Copies may be made and used by the institutions.

11. Practical records

Records, log books and marks obtained in tests shall be maintained by the Head of the Department and shall be made available to the University or CCIM

12. Procedures of defaulters

Every department should have committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate to be withheld from appearing the examination, if she/ he fails to fulfill the requirements in spite of being given adequate chances to set himself or herself right.
FORMAT OF MODEL CHECKLISTS AND EVALUATION OF LEARNING PROGRESS

Checklist-1. Model Check list for evaluation of Seminar presentations

Name of the Candidate: ___________________________ Date: ___________________________

Name of the Faculty/Observer: ___________________________

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Items of observation During presentation</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Whether other relevant publication consulted</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Whether cross reference have been consulted</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>3</td>
<td>Completeness of the preparation</td>
<td></td>
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<tr>
<td>4</td>
<td>Clarity of the preparation</td>
<td></td>
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<tr>
<td>5</td>
<td>Understanding the subject</td>
<td></td>
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<tr>
<td>6</td>
<td>Ability to answer the questions</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Time scheduling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Appropriate use of audio-visual aids</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>Overall performance</td>
<td></td>
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<tr>
<td>10</td>
<td>Any other observations</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Total score

203
Checklist-2  Model Check list for evaluation of Journal review Presentations

Name of the Candidate:          Date:

Name of the Faculty/Observer:

<table>
<thead>
<tr>
<th></th>
<th>Items of observation During presentation</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Article chosen</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Extent of understanding of scope &amp; objectives of the paper by the candidate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Whether cross-references have been consulted</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4.</td>
<td>Whether other relevant publications consulted</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>Ability to respond to questions on the paper/ subject</td>
<td></td>
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<tr>
<td>6.</td>
<td>Audio - Visual aids used</td>
<td></td>
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</tr>
<tr>
<td>7.</td>
<td>Ability to discuss the paper</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8.</td>
<td>Clarity of presentation</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9.</td>
<td>Any other observation</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total score</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Checklist-3. Model Check list for evaluation of Practical work in Practical classes/Clinical work in OPD

Name of the Candidate: 

Date: 

Name of the Faculty/Observer: 

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Items of observation During presentation</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regularity of attendance</td>
<td></td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Punctuality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Interaction with colleagues and supporting staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Maintenance of case records</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Investigations work up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Chair side manners</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>7</td>
<td>Rapport with patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Overall quality of clinical work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Score**
Checklist-4. Model Check list for evaluation of Clinical Presentations

Name of the Candidate:  Date:  

Name of the Faculty/Observer: 

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Items of observation During presentation</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Completeness of history</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Whether all relevant points elicited</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Clarity of presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Logical order</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mentioned all positive and negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Accuracy of general physical examination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Diagnosis: whether it follows logical from history and findings</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>Investigation required complete list relevant order interpretation of investigations</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>Ability to react to questioning.</td>
<td></td>
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<tr>
<td>10</td>
<td>Ability to justify differential diagnosis</td>
<td></td>
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<tr>
<td>11</td>
<td>Ability to defend diagnosis</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>12</td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Total score
# Checklist-5. Model Check list for evaluation of Teaching skills

**Name of the Candidate:**

**Name of the Faculty/Observer:**

<table>
<thead>
<tr>
<th>Strong points</th>
<th>Weak points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication of the purpose of the talk</td>
<td></td>
</tr>
<tr>
<td>Evokes audience interest in the subject</td>
<td></td>
</tr>
<tr>
<td>The introduction</td>
<td></td>
</tr>
<tr>
<td>The sequence of ideas</td>
<td></td>
</tr>
<tr>
<td>The use of practical examples and/or illustration</td>
<td></td>
</tr>
<tr>
<td>Speaking style (clear, monotonous, etc. Specify)</td>
<td></td>
</tr>
<tr>
<td>Attempts audience participation</td>
<td></td>
</tr>
<tr>
<td>Summary of the main points at the end</td>
<td></td>
</tr>
<tr>
<td>Ask question</td>
<td></td>
</tr>
<tr>
<td>Answer question ask by the audience</td>
<td></td>
</tr>
<tr>
<td>Rapport of the speaker with his audience</td>
<td></td>
</tr>
<tr>
<td>Effectiveness of the talk</td>
<td></td>
</tr>
<tr>
<td>Use AV aids appropriately</td>
<td></td>
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</tbody>
</table>
Checklist-6. Model Check list for evaluation of Dissertation presentation

Name of the Candidate: ___________________________ Date: ___________________________

Name of the Faculty/Observer: ___________________________

<table>
<thead>
<tr>
<th>Points to be considered</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

1. Interest shown in selecting topic

2. Appropriate review

3. Discussion with guide and the faculty

4. Quality of the protocol

5. Preparation of proforma

Total score

208
Checklist-7. Model Check list for evaluation of Dissertation progress with Guide

Name of the Candidate: 

Name of the Faculty/Observer: 

<table>
<thead>
<tr>
<th>Items of observation During presentation</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Periodic consultation with guide / co-guide</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Regular collection of case material</td>
<td></td>
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<tr>
<td>3. Depth of Analysis / Discussion</td>
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<td>4. Department presentation of findings</td>
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<tr>
<td>5. Quality of final output</td>
<td></td>
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<tr>
<td>6. Others</td>
<td></td>
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</tbody>
</table>

**Total Score**
# Checklist-8. Overall assessment Sheet

**Name of the Candidate:**

**Date:**

**Name of the Faculty/Observer:**

<table>
<thead>
<tr>
<th>Name of the candidate * and Mean score</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Seminar</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>2. Journal presentations</td>
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<tr>
<td>3. Practical work in Practical classes/Clinical work in OPD</td>
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<td></td>
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<tr>
<td>4. Clinical Presentations</td>
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<tr>
<td>5. Teaching skills</td>
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<td>6. Dissertation Presentations</td>
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<td>7. Dissertation progress with Guide</td>
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</tbody>
</table>
LOG BOOK

Table 1

Academic Presentation made by the candidate

Name: Admission Year:
College:

<table>
<thead>
<tr>
<th>Date</th>
<th>Type Of Activity- Specify Seminar, Journal Club, Presentation, UG Teaching</th>
<th>Particulars</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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Table 2’

Academic Presentation made by the candidate

Name: Admission Year: College:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Type Of Activity- Specify Seminar, Journal Club, Presentation, UG Teaching</th>
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Table 3

Diagnostic and operative practical (Prayoga)/Chikitsa (Therapeutic) Procedure performed

Name:

Admission Year: __________________________ College: __________________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>OP No.</th>
<th>Procedure</th>
<th>Category O, A, PA, PI</th>
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Key:

O – Washed up and observed – initial 6 months of admission

A – Assisted a more senior surgeon – 1 year M.D. (Ay)/M.S.(Ay)

PA – Performed procedure under the direct supervision of senior physician/ surgeon- 2 year M.D. (Ay)/M.S.(Ay)

PI - Performed independently – 3 year M.D. (Ay)/M.S.(Ay)

Section V

Ayurveda Ethics Sensitization and Practice

Introduction:

There is now a shift from the traditional individual patient doctor relationship and medical care. With the advance in science and technology and the needs of the patient, their families and community, there is an increasing concern with the health of the society, there is a shift to greater accountability to the society. Doctor and the health professional are confronted with many ethical problems. To accomplish the goal and general objectives stated in section II and develop human values it is urged that ethical sensitization is planned to be achieved by lecturers or discussion on ethical issues, discussion of clinical cases that have important ethical component and by including ethical aspects in discussion in all case presentation, bed side rounds and academic programmes.

Course contents:

The names of all the Sanskrit references below are given in bold scripts. This would serve as the Bibliography. The contents are merely indicated and not detailed excepting in the first few cases as a sample.
1. **Introduction to Medical Ethics.**

What is ethics?

Ethics is a way of living in conformity with a moral order (niiti para) that sustains (dhaarayati iti dharmah Manusmriti) oneself and one’s society as it harms none and helps others and thus one earns merit and no sin (paropa kaarah punyaaya, paapaaya para pidanam)

What are values and norms?

See the section of purusharthas (psychological inclination: motivation in life) in charaka Samhita = sutrastana and viman stana, for an account on values in life and sadvrittavarana (description of good living) in both charak samhita and sushruta samhita sutrastana for norms in it. Chakrapani’s commentary on charak samhita and dalhana’s on sushruta samhita elaborate much on these two important ethical issues. Somatotypes in sushrutha has some significant details on norms. Relationships between being ethical and human fulfillment.

Refer daivii sampat, aasurii sampat and sthitipragna lakshana in bhagavad gita, anushaasana parva and shanthi parva of Mahabharata for both of these topics.

- Relationships between being ethical and human fulfillment
- How to form a value system in one’s personal and professional life
- Heteronomous ethics and autonomous ethics
- Freedom and person responsibility

2. **Definition of Medical Ethics.**

Medical ethics is regulating this living by the individual, the professional and the society – all doing their duties. Any transgression is a disease of the individual, the professional and the societal. Ayurveda offers rules conductive to the increase of this span by (rasayan or) rejuisense, maintenance of health (swastya), by physical (aadhibhoutika) measures, medication (bhaishajya) and concern of the soul or sprit (adhyaatmika). Of these, the spiritual concern is of the basis value, as it would treat
successfully the bodily as well as the mental life. The advice and the measures given by Ayurveda covers literally all aspects of man’s life. They are of the food taken (aahara), the types of habitual sports and engagements (vihara) indulged in, and the types of the thought about the general inclination of the mind (vichara).

- ‘Justice (equality)’ Refers to history of Dharma Shastra by Dr. P.V. Kane and the corresponding Sanskrit originals. Self determination.
- Difference between medical ethics and bio- ethics
- Major principles of medical ethics

Beneficence = fraternity

Justice = equality

Self determination (autonomy) = liberty

3. Perspective of Medical Ethics.

- The oath:

In Ayurveda there are two oaths, one at the beginning of the medical education taken by teacher and the student at the initiation ceremony or ayurvedopanayan and other at the end of the education. Both are many angled in there motivational and important to stress the needs and the many aspects of Medical ethics. The following works and their commentaries offer much of the relevant here that are worthy of being developed further in the light of modern needs: Charaka Samhita Chikitsaastana Rasayanaadhyaya (specially aachar rasayan . Sushruta Sanhita And Chandogya Upanishat.

- The declaration of Helsinki
- The declaration of Geneva
- International code of Medical Ethics (1993)


- The patient as a person: See aatura pariksha in sushurauta sanhita and charaka samhita.
- The concept of disease: (see Nidaana sthana of Charaka Samhita, Sushruta Samhita and
Vagbhata’s Astanga Hridaya), health (see all vriddhatrayee) and healing (see specially Sushruta)

- The physician: Patient relationship (consult Dasemaani Pariksha, the tenfold examination in Charaka Samhita).
- The right to be respected
- Truth and confidentiality
- The autonomy of decision
- The right to health
- Ethics of behavior modification
- Organ donation

5. The Family and Society in Medical Ethics.

- Family planning perspectives see under samskaaras in dharma shastra for eg. Manudharma shastra and Yagnavalkal Smriti.
- Prolongation of life: aachara rarsayan is the most effective way as Charaka Samhita sutra staana points out
- The ethics of human sexuality
- Advanced life directives – the living well
- Euthanasia
- Cancer and terminal care
- Conception: useful material on ethics exists under Garbhadana Vidhi in Charaka and pediatrics in Kashyapa Samhita.

6. Professional Ethics

Code of conduct

Contract and confidentiality Charging of fees, fee splitting Prescription of drugs
Over investigating the patient

Low cost drugs, vitamins and tonics Allocation of resources in health science Malpractice and negligence
7. Research Ethics

Animal and experimental research on human subjects
Human volunteer research – informed consent
Drug trials

Recommended readings

1. Francis C.M., Medical ethics. 1 Ed, 1993 Jaypee Brothers, New Delhi, p 189, Rs. 60/-
2. Krishnamurthy K.H., a Source book of Indian Medicine, D. K. Publishers, New Delhi, p547, Rs. 300/-
4. The Indian Medicine for Central Council Act, 1970, Bare Act – 2002, Delhi Law House, Delhi, Rs. 20/-