

SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Dravyaguna –
D. Pharmacognosy (Ay.)
(Diploma in Pharmacognosy and Standardization)**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Dravyaguna – D. Pharmacognosy (Ay.) (Diploma in Pharmacognosy and Standardization)

2.2 Objectives:

The aims of D. Pharmacognosy (Ay.) (Diploma in Pharmacognosy and Standardization) course shall be to produce efficient Ayurved specialist in the specialty Dravyaguna and to produce experts for research and development in the field of specialisation of Dravyaguna.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Namaroop Vigyan

Theory – 100 Marks

PART A

1. Historical background of Dravyaguna from Vedic era, Samhita and Nighantu periods till modern times.
2. Introduction to Pharmacognosy, methods of classification of crude drugs morphological, microscopical, chemical, taxonomical, pharmacological, therapeutical, chemotaxonomical, etc.
3. Brief knowledge regarding nomenclature, identification and classification of drugs in Ayurveda based on Samhita and in various Nighantu.
4. Organized and unorganized drugs and their methods of evaluation.
5. Cultivation, collection, storage and preparation for the market of ASU Drugs.
Introduction to Good Agricultural Practices (GAP), Good Field Collection Practices (G.F.C.P.) and Good Storage Practices (G.S.P.), etc.
6. Environmental (Desh, Kaal, Ritu, etc.), genetic and gender factors affecting qualities of crude drugs.

PART B

1. Introduction of tissue culture techniques used for Ayurvedic Drugs.
2. Anukta dravya (extra Pharmacopeial Drugs).
3. Controversial aspects of Ayurvedic Drugs.
4. Adulteration and substitutes of crude drugs and methods for detection of adulterants.
5. Standardization of crude drugs as per Ayurvedic Pharmacopeia of India (API) and WHO guidelines.

PAPER – II

Guna Karma Vigyan

Theory – 100 Marks

PART A

1. Fundamental principles of Dravyaguna
2. Detailed study on the Rasa, Guna, Virya, Vipaka, Prabhava and Karma with their applied aspects.
3. Evaluation of karmas (Deepana, Pachana, Grahi, Stambhana, Mutrala, Mutrasangrahaniya, Anulomana, Rechana, Jwaraghna, Vedanahara).
4. Introduction to general pharmacology.
5. Knowledge on procedure, equipments and instruments used in pharmacological evaluation.
6. Introduction to phytochemistry, chemical analysis and chromatography.

PART B

1. Detail study of 50 Medicinal Plants and 25 Ahara Dravya according to therapeutic classification e.g. Rasayan Vajikaran, Medhya, Jvarahara, Kasahara, Shvasahara, Shothahara, Kushtghna, Krimighna, etc. #
2. Biological Screening methods including animal experiments.
3. Safety evaluation of drugs (Toxicological evaluation) and their guidelines for evaluation for example OECD guidelines, WHO guidelines, etc.

Explanatory Note

List of 50 Medicinal Plants

Detailed Knowledge of Following medicinal plants with -
Basonym, therapeutic classification (Gana, varga etc), synonyms with interpretations, regional name, botanical name, family, morphological features, useful parts with their organoleptic features, important phytoconstituents, rasa panchaka, karma, matra, adverse effects if any with remedial measures, purification (if applicable) and important research works up to date (till the beginning of relevant academic year)

1	Aamlaki	18	Gokshura	35	Patola
2	Aaragvadha	19	Guduchi	36	Pippali
3	Agnimantha	20	Guggulu	37	Prshniparni
4	Aguru	21	Haritaki	38	Punarnava
5	Ahiphena	22	Hingu	39	Pushkarmula
6	Ardraka	23	Kanchanara	40	Rasna
7	Arjuna	24	Kantakari	41	Saliparni
8	Ashoka	25	Kapikachu	42	Sarpagandha
9	Ashvagandha	26	Karpoora	43	Satavari

10	Bakuchi	27	Khadira	44	Sharapunkha
11	Baladavya	28	Kutaja	45	Shirisha
12	Bilva	29	Manjistha	46	Shyonaka
13	Bramhi	30	Marica	47	Talispatra
14	Bruhati	31	Nimba	48	Vacha
15	Daruharidra	32	Nirgundi	49	Vasa
16	Dhattura	33	Patala	50	Vidanga
17	Gambhari	34	Patha		

List of 25 Ahara Dravyas

Detailed Knowledge of Following with –

Basonym, synonyms, regional name, scientific name, general properties of containing group, rasa panchaka, action on dosha, dhatu & mala, dietetic, nutritional & therapeutic significance and contra indications if any

1	Raktasaali	10	Kulatdha	18	Vrkshamla
2	Shaashtika	11	Tila	19	Aja mamsam
3	Yava	12	Sarshapa	20	Ksheera
4	Godhuma	13	Kodrava	21	Dadhi
5	Mudga	14	Vaastuka	22	Takra
6	Masha	15	Kushmanda	23	Ghrta
7	Aadhaki	16	Grnjanaka	24	Madhu
8	Canaka	17	Soorana	25	Guda
9	Kalaaya				

PRACTICAL

100 Marks

Explanatory Note

Detailed Knowledge of macroscopic and microscopic features of following drugs -

1	Arjuna	5	Haritaki	9	Rasna
2	Ashvagandha	6	Kutaja	10	Sarpagandha
3	Daruharidra	7	Manjistha	11	Vasa
4	Guduchi	8	Patola	12	Vidanga

Distribution of marks (Practical):

1. Spotting – Wet drugs	20 Marks
2. Spotting – Dry drugs	20 Marks
3. Morphology	10 marks
4. Microscopy	20 marks
5. Identification of Instruments	10 Marks
6. Viva-voce	20 Marks
Total	100 marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Aushadha Prayoga Vigyan

Theory – 100 Marks

PART A

Aushadha prayoga marga (routes of drug administration) of Dravya, its Prayoga Vidhi, Matra-Anupana (Drug delivery regimen), etc.

1. Consideration of Samyoga-Virodha (Drug incompatibility).
2. Principles of Clinical pharmacology.
3. Introduction to Reverse pharmacology.
4. ADR in Ayurveda and conventional system of medicine.
5. IPR, Regulations pertaining to Import and Export of Drugs.

PART B

1. Knowledge of Therapeutic Administration (Amayika prayoga) of plants mentioned as follows:

- | | | |
|-----------------------|--------------------|-------------------|
| 1) Ahiphena | 2) Agnimantha | 3) Agar |
| 4) Amalaki | 5) Apamarga | 6) Aragvadha |
| 7) Ardraka-Shunthi | 8) Arjuna | 9) Arka |
| 10) Ashvagandha | 11) Ashvagola | 12) Ashoka |
| 13) Ativisha | 14) Bakuchi | 15) Baladvayam |
| 16) Bharangi | 17) Bhallataka | 18) Bibhitaka |
| 19) Bijaka/Vijayasara | 20) Bilva | 21) Brahmi |
| 22) Bringaraj | 23) Brihati | 24) Chandanadvaya |
| 25) Chitraka | 26) Dadima | 27) Danti |
| 28) Daruharidra | 29) Dhanyak | 30) Dhatki |
| 31) Draksha | 32) Durva | 33) Ela |
| 34) Eranda | 35) Gambhari | 36) Gokshura |
| 37) Guduchi | 38) Guggulu | 39) Haridra |
| 40) Haritaki | 41) Hingu | 42) Jambu |
| 43) Jatamamsi | 44) Jatiphal | 45) Jeerakdvaya |
| 46) Jyotishmati | 47) Kalamegh | 48) Kampillak |
| 49) Kanchanara | 50) Kantakari | 51) Kapikacchu |
| 52) Karkatashringi | 53) Karpur | 54) Katuki |
| 55) Khadira | 56) Kiratatikta | 57) Kumari |
| 58) Kupilu | 59) Kumkum/Keshara | 60) Kushmanda |
| 61) Lavang | 62) Kutaja | 63) Lodhra |
| 64) Madanaphal | 65) Manjishtha | 66) Marich |
| 67) Markandika | 68) Mushali | 69) Musta |

70) Nagakeshar	71) Nimba	72) Nirgundi
73) Palasha	74) Palandu	75) Pashanabheda
76) Patala	77) Patola	78) Pippali-Pippalimula
79) Punarnava	80) Rasna	81) Rasona
82) Saireyaka	83) Shallaki	84) Saptaparna
85) Sarpagandha	86) Sariva	87) Shalparni
88) Shalmali	89) Shankhapushpi	90) Shatavari
91) Shatapushpa	92) Shigru	93) Shirish
94) Shyonaka	95) Talisa patra	96) Tila
97) Trivrit	98) Tulsi	99) Tvak
100) Ushira	101) Vacha	102) Varun
103) Vasa	104) Vata	105) Vatsanabha
106) Vidari	107) Vidanga	108) Yashtimadhu
109) Yavani	110) Devadaru	

2. Clinical trial- protocol designing, stages of Clinical Research and data management.
3. Bioethics in Clinical Research.
4. Introduction of Pharmaco epidemiology/observational study

PAPER – II

Aushadha Yoga Vigyan

Theory – 100 Marks

PART A

Importance and principles of formulations as per Ayurveda

1. Introduction to relevant portions of Drugs and Cosmetic Act, Magic remedies Act, Intellectual Property Right (IPR), regulations pertaining import and export of drugs.
2. Good manufacturing practices (GMP).
3. Quality control procedures of formulations prescribed by Drug Regulatory Authorities.
4. General awareness about nutraceuticals, cosmoceutical, food additives, excipients, etc.

PART B

1. Detail study of five formulations from each kalpana of Ayurvedic Formulary of India (AFI)#
2. Knowledge about herbal extracts, colours, flavours and preservatives
3. Standardization of various Ayurvedic Kalpana, eg- Churna, Vati, Avaleha, Siddha Sneha, Asava, Arishta, etc.

Explanatory Note

Detail study of five formulations from each kalpana of Ayurvedic Formulary of India (AFI)

	Curna	Kwadha	Arishta/Asava	Avaleha
1	Avipattikara	Amrtottaram Kwadham	Abhayarishta	Agastya Hareetaki
2	Hinguashtakam	Dasamulakatutrayam kwadham	Ahiphenasava	Kushmanda rasayana
3	Induppukanam	Patolamuladi Kwadham	Ayaskriti	Manibhadra Guda
4	Karpuradi	Punarnavashtakam Kwadham	Dantyarishta	Mrdweekadi Leha
5	Vaiswanaram	Rasnairandadi Kwadham	Karpurasava	Nalikera Khanda

	Ghrta	Taila	Vati/Gutika/ Guggulu/ Rasakriya/Satwa	Arka/Lavana/ Kshara
1	Amrta Ghrta	Balahathadi Taila	Dhanwantaram gulika	Ajamodarka
2	Chagaladya Ghrta	Karpasasthyadi Taila	Elaneerkuzhambu	Arkalavana
3	Indukanta Ghrta	Kottamchukkadi Taila	Vilwadi gutika	Panaviraladi bhasma
4	Kalyanaka Ghrta	Ksheerabala Taila	Guduci satwa	Palasakshara
5	Pancagavya Ghrta	Pindatailam	Yogarajaguggulu	Yavakshara

PRACTICAL

100 Marks

Contents of Practical

1. Survey of Adverse Drug Reaction (ADR) in prescribed format of national pharmacovigilance programmes of ASU Drugs (Minimum 2)
2. Shodhana methods of Visha Dravya.
3. Preparation of two Yoga from each kalpana of Ayurvedic Formulary of India.
4. Microscopical evaluation of certain Churna formulation e.g. Sitopaladi, Hingvashtak, Trikatu, Triphala etc.
5. Chemical evaluation of Asava and Arishta.

Pattern of Practical Examination

1. Herbarium File	10 Marks
2. Experiment related to Macroscopical, Microscopical, Organoleptic evaluation, Extraction and Phytochemical Evaluation	30 Marks
3. Spotting of Dravya	10 Marks
4. Project Work	20 Marks
5. Viva-voce	30 Marks
Total	100 Marks

Text Books for Reference

1. Abhinav Buti Darpan (Vol.1-2) : Vd. Roop Lal Vaishya
2. Aushadha Vigyana Shastra : Acharya Pt. Vishvanath Dwivedi
3. Ayurvediya Aushadhkarma 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 commentary : Vd. Krishna Chandra Chunekar
8. Bhrihad Dravyagunadarsha : 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 Trikam Ji
16. Dravyaguna Vigyana : Dr. V.M. Gogate
17. Dravyaguna Vigyana (Vol. 1-5) : Acharya Priyavrata Sharma
18. Dravyaguna Shastram : Vaidya G.A. Phadake
19. Dravyaguna Vigyana : Dr. A.P. Deshpande
20. Dravyagunavigyana Basic Principles : Prof.D.S.Lucas
21. Forgotten Healers (Indian Medicinal Plants) : Dr. Prakash Paranjape
22. Glossary of Vegetable Drugs in Brihatrayi : Thakur Balwant Singh & Vd. Krishna Chandra Chunekar
23. Introduction to Dravyaguna : Acharya Priyavrata Sharma
24. Kriyatmaka Aushadi Parichaya : Acharya Pt. Vishvanath Dwidevi
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
30. Priya Nighantu : Acharya Priyavrata Sharma
31. Raspanchaka/Dravyaguna Siddhanta : Prof. Shivcharan Dhyani
32. System of Plant Nomenclature in Ayurveda : Dr. Gyanendra Pandey
33. Text Book of Pharmacology : Trees & Valis

- | | |
|---|-----------------------------|
| 34. Textbook of Dravyaguna | : Dr.K.Nishteswar |
| 35. Unani Dravyaguna Vigyana | : Hakim Daljeet Singh |
| 36. Useful parts of Charak, Sushrut and Vagbhata. | |
| 37. Uttarakhand Ki Vanaspathiya | : Dr. Gyanendra Pandey |
| 38. Vanoaushadi Darshika | : Thakur Balwant Singh |
| 39. Vanoaushadi Nidarshika | : Dr. Ram Sushil Singh |
| 40. Vedic Vanaspathian | : Dr. Dinesh Chandra Sharma |

Additional Books for Reference

1. Pharmacognosy of Ayurvedic Drugs Vols 1-14: Publication Division, Govt. Ayurveda College, Trivandrum
2. Indian Medicinal Plants 5 Volumes : Arya Vaidya Sala, Kottakkal
3. A Hand Book on the Plant Sources of Indigenous Drugs : Dr. P. Y. Ansary
4. Practical Guide to Dravyaguna Vijnanam : Dr. P. Y. Ansary

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707

33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in*/Open Access Peer Reviewed E-Journal. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.

4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

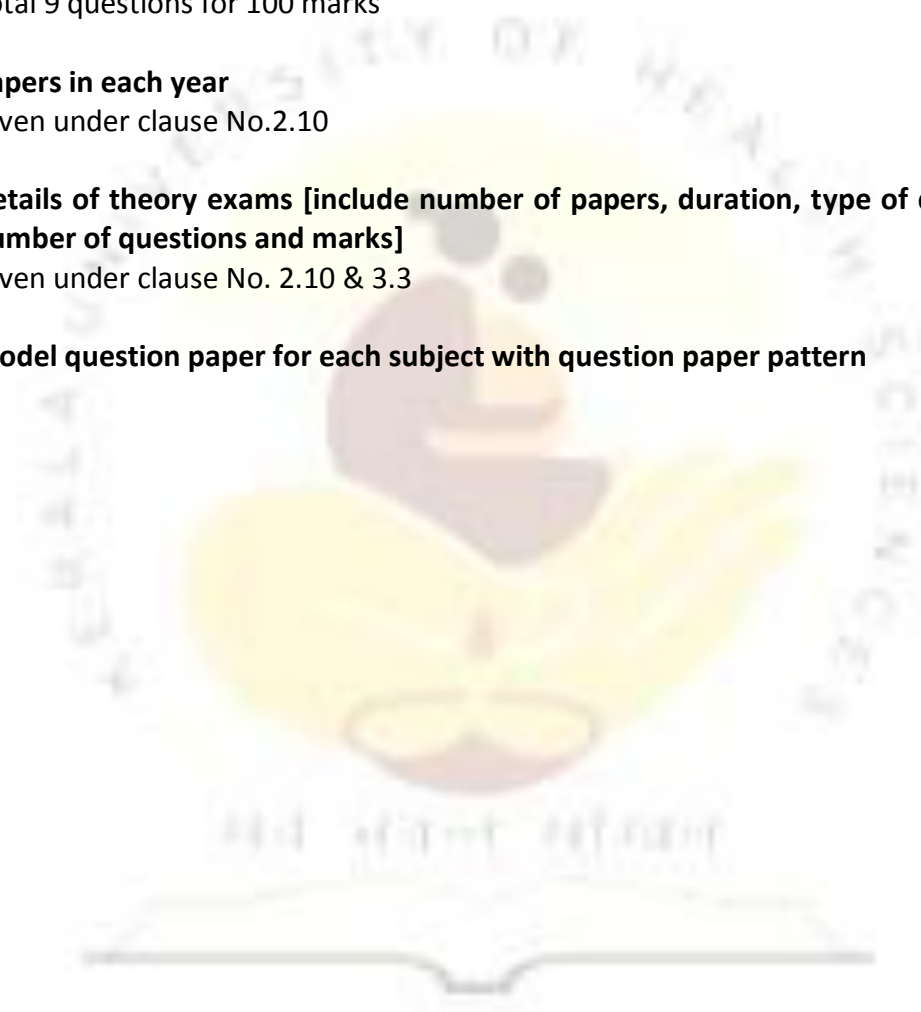
3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern



CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Dravyaguna – (Diploma in Pharmacognosy (Ay.))
(..... scheme)**

Paper I - Namaroopa Vigyan

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Explain methods of classification of crude drugs with suitable examples.

Short Essays

(8 x 10)

2. What is drug adulteration? Describe two methods for detection of adulterants with suitable examples
3. What are basis of nomenclature of drugs? Give a detailed account with suitable examples
4. Describe the classification of drugs adopted by Brhat trayee.
5. Describe methods of evaluation of leaf drugs with suitable examples and diagrams.
6. Explain Good Agricultural Practices
7. Explain effect of Ritu in raw drug quality with one suitable example
8. What is an Extra Pharmacopeial Drugs? Give your view about how they can be made pharmacopoeial.
9. Write short notes on
 - a. Unorganized drugs
 - b. Substitutes.

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Dravyaguna – (Diploma in Pharmacognosy (Ay.))
(..... scheme)**

Paper II – Guna Karma Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Define and enumerate Guna. Which are the Cikitsopayogi guna? Analyse the role of Gurvadigunas in chikitsa with suitable examples.

Short Essays

(8x10=80)

2. Define and enumerate Veerya. Describe how Seeta veerya can be utilised in therapeutics.
3. What is Prabhavam? Explain types of prabhavaja karma.
4. Explain the mode of evaluation of Mootrala karma
5. Give a brief account on types of chromatography
6. Interpret three synonyms of Pippali and explain morphology of Pippali.
7. Name the important chemical constituents, explain rasapancaka and describe three therapeutic applications of Amalaki.
8. Describe karma of Madhura rasa and its clinical application
9. Write short notes on
 - a. Bio availability
 - b. Biological half life
 - c. Additive effect
 - d. Synergism

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Dravyaguna – (Diploma in Pharmacognosy (Ay.))
(..... scheme)**

Paper I - Aushadha Prayoga Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain routes of drug administration as per Ayurveda and modern medicine.
Describe your views regarding adoptability of modern delivery systems for Ayurveda drugs

Short Essays

(8x10 = 80)

2. Explain Role of Reverse pharmacology in drug research
3. Describe role of pharmacovigilance with respect to Ayurveda drugs
4. Describe regulations pertaining to Import and Export of Drugs.
5. What are the powers and responsibilities of Ethical Committee.
6. Describe Adverse Drug Reactions
7. Which are the rules pertaining to dose fixation?
8. Explain drug incompatibility.
9. Describe the diverse therapeutic administrations of
 - a. Aragvadha
 - b. Eranda

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Dravyaguna – (Diploma in Pharmacognosy (Ay.))
(..... scheme)**

Paper II - Aushadha Yoga Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain the methods of preparation and characteristics of Ghrita kalpana. Explain preparation of Amrita ghrita.

Short Essays

(8x10 = 80)

2. Explain Intellectual Property Right (IPR).
3. Describe Good manufacturing practices (GMP).
4. Give a brief account on permitted excipients in Ayurveda medicines.
5. Describe nutraceuticals.
6. Explain preparation method of Arishta. What are the precautions to be taken while preparing dantyarishta?
7. Describe preparation method and characteristics of Avaleha kalpana according to AFI. How is Hareetaki taken to prepare Agasthya Rasayana.
8. Pharmacopoeial Laboratory For Indian Medicines
9. Preservatives

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution



SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Ras Shastra & Bhaishajya Kalpana –
D. Ras Shastra and Bhaishajya Kalpana
(Diploma in Ayurvedic Pharmaceutics)**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Diploma in Ras Shastra & Bhaishajya Kalpana – D. Ras Shastra and Bhaishajya Kalpana (Diploma in Ayurvedic Pharmaceuticals)

2.2 Objectives:

The aims of D. Ras Shastra and Bhaishajya Kalpana (Diploma in Ayurvedic Pharmaceuticals) course shall be to produce efficient Ayurved specialist in the specialty Ras Shastra & Bhaishajya Kalpana and to produce experts for research and development in the field of specialisation of Ras Shastra & Bhaishajya Kalpana.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

**Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100**

PAPER – I

Raw Materials Science

Theory – 100 Marks

PART A

1. Definition and categories of raw materials from plant, animal, metallic and mineral origin.
2. Plant concentrates, extracts and exudates, resins, excipients, sweetening agents, volatile oils, perfumes, flavours and colours.
3. Collection, shelf-life and storage of raw materials.
4. Study of plant material derived from prioritized medicinal plants.
5. Study of nomenclature, synonyms, description-macro and micro, identification, purity and strength, constituents, assay, properties – pharmacological activity, important formulations, therapeutic uses and dose of raw materials as given in the pharmacopoeia as applicable for following plants.

1) Ahiphena	2) Agnimantha	3) Agaru
4) Amalaki	5) Apamarga	6) Aragvadha
7) Ardraka-Shunthi	8) Arjuna	9) Arka
10) Ashvagandha	11) Ashvagola	12) Ashoka
13) Ativisha	14) Bakuchi	15) Baladvayam.
16) Bharangi	17) Bhallataka	18) Bibhitaka
19) Bijaka/Vijayasara	20) Bilva	21) Brahmi
22) Bringaraj	23) Brihati	24) Chandandvaya
25) Chitraka	26) Dadima	27) Danti
28) Daruharidra	29) Dhanyak	30) Dhatki
31) Draksha	32) Durva	33) Ela
34) Eranda	35) Gambhari	36) Gokshura
37) Guduchi	38) Guggulu	39) Haridra
40) Haritaki	41) Hingu	42) Jambu
43) Jatamamsi	44) Jatiphal	45) Jeerakdvaya
46) Jyotishmati	47) Kalmegh	48) Kampillak

49) Kanchanar	50) Kantakari	51) Kapikacchu
52) Karkatashringi	53) Karpur	54) Katuki
55) Khadira	56) Kiratatikta	57) Kumari
58) Kupilu	59) Kumkum/Keshara	60) Kushmanda
61) Lavang	62) Kutaja	63) Lodhra
64) Madanaphal	65) Manjishtha	66) Marich
67) Markandika	68) Mushali	69) Musta
70) Nagakeshar	71) Nimba	72) Nirgundi
73) Palasha	74) Palandu	75) Pashanabheda
76) Patala	77) Patola	78) Pippali-Pippalimula
79) Punarnava	80) Rasna	81) Rasona
82) Saireyaka	83) Shallaki	84) Saptaparna
85) Sarpagandha	86) Sariva	87) Shalparni
88) Shalmali	89) Shankhapushpi	90) Shatavari
91) Shatapushpa	92) Shigru	93) Shirish
94) Shyonaka	95) Talisa patra	96) Tila
97) Trivrit	98) Tulsi	99) Tvak
100) Ushira	101) Vacha	102) Varun
103) Vasa	104) Vata	105) Vatsanabha
106) Vidari	107) Vidanga	108) Yashtimadhu
109) Yavani	110) Devadaru	

PART B

1. Short introduction to minerology - including the process of mineral origin and formation, classification of minerals, their geographical distribution, as well as their utilization. Physical, chemical and minerological properties, identification, classification, categorization, pharmacological properties and uses of minerals.
2. Brief introduction to metallurgy, including the physical and chemical behavior of metallic elements, extractive metallurgy, properties of metals, important common alloy systems, general principles of metal working process, various heat treatments and chemical properties of metals.
3. Definition, classification, scientific and classical nomenclature, synonyms, characteristic features, physico-chemical properties of Rasa, Maharasa, Uparasa, Sadharanrasa, Ratna-Uparatna, Vishopavisha, Dhatu and Upadhatu (Metals and mineral containing drugs) along with their properties, pharmacological activity, important formulations, therapeutic uses and dose.
4. Brief introduction to animal products used in therapeutics, their physical and chemical properties, pharmacological activity, therapeutic uses and dose.
5. Storage and shelf life of metal, mineral and animal origin raw materials.

PAPER – II

Drug Standardization and Regulations

Theory – 100 Marks

PART A

1. Methods of drug standardization in relation to drugs prepared from plant, mineral, metal and animal products.
2. Concept of evaluation of Plant drugs as per WHO guidelines.
3. Review of general methods of evaluation of drugs and foods.
4. Morphological, Microscopical, Cytomorphological examination of finished products.
5. Determination of physical and chemical constituents and its extractive values.
6. Techniques of separation, identification, estimation and characterization of various chemical components of drug.
7. Determination of Physical, Chemical and Biological adulterants and contaminants.

PART B

Indian Statutory Regulations applicable to Ayurvedic products

1. Good Manufacturing Practices related to Ayurvedic Drug Industry.
2. Laws Governing Pharmacy
 - a) Relevant regulatory provisions of Ayurvedic drugs in Drug and Cosmetic Act 1940 and Rules 1945
 - b) Laws pertaining to Drugs and Magic remedies (objectionable advertisement) Act-1954.
 - c) Prevention of Food Adulteration (PFA) Act.
 - d) Laws pertaining to Narcotics
 - e) Factory and Pharmacy Acts
 - f) Consumer Protection Act -1986
 - g) Standards of Weights and Measures (Enforcement) Act 1985
3. Regulatory Affairs related to International Trade and Practices of Ayurvedic Drugs.
4. Introduction to Ayurvedic Pharmacopeia of India, Ayurvedic Formulary of India.
5. Introduction to Indian Pharmacopeia, British and United States Pharmacopeia, Pharmacopeial Codex.
6. Introduction to Traditional Knowledge Digital Library.

Patent and product registration

1. Intellectual property, importance and types of intellectual property.
2. Paris convention, World Trade Organization and GATT.
3. The Indian Patents Act 1970 and Indian Patents (Amendments) Act 2005.
4. Concepts of patentability – issue of novelty, inventive steps and industrial application with special reference of differences in Indian, United States and European patents.
5. Knowledge of US FDA and statutory regulations as applicable to plant drugs in U.S.
6. Introduction to European Union. Traditional Health Medicinal Product Directive (THMPD) and other directives and regulations related to plant drugs, Nutraceuticals applicable in European Union.

7. Introduction to product registrations in many countries such as - Natural Health Products of Canada, Traditional Medicine Registration of Malaysia, EMEA's Human Herbal Medicines, etc.
8. New Drug Application (NDA) and Abbreviated New Drug Application (ANDA).

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Spotting	- 20 Marks
2. Records	- 20 Marks
3. Practical (Rasa and Bhaishajya)	- 40 Marks
4. Viva- Voce	- 20 Marks
Total	- 100 Marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each

Practical (One) - Maximum Marks - 100

PAPER – I

Pharmaceutical Technology of Kashtaushadhi

Theory – 100 Marks

PART A

1. Introduction to Pharmaceutical technology, standard operating and manufacturing procedures.
2. Dosage forms of drugs- liquids, semi-solids and solids.
3. Size reduction- disintegrator, hammer mill, ball mill, fluid energy edge runner, roller mill.
4. Size separation, mixing and homogenization.
5. Filtration- various devices and methods.
6. Extraction- percolation and maceration, infusion, decoction, soxhlet extraction.
7. Distillation- Double and triple distillation, fractional distillation (rectification), molecular distillation, vacuum distillation.
8. Heat processes- fusion, calcination, ignition, exsiccation, sublimation.
9. Drying process– knowledge of current and advanced technologies of drying.
10. Freeze drying (Lipholization).
11. Tablet making- types of tablets, binders, adhesives, lubricants, colorants etc., compression- single, multiple station machines, coating, polishing.
12. Capsules– types of capsules, hard and soft gelatin, granulation, capsule filling technology.
13. Introduction to Stability studies and use of preservatives, anti-oxidants and other material with reference to shelf life of drug material.
14. Syrups, elixirs, ointments, emulsion, pastes, dental and cosmetic preparations.

15. Packaging technology, strip packing, blister packing, aerosols, labeling.
16. Marketing of Pharmaceutical products

PART B

1. Introduction to technical terminologies used in Bhaishajya Kalpana.
2. Definition, composition, method of preparation of following dosage forms:
 - a) Liquid dosage forms - Svarasa, Kvatha, Hima, Phanta, Taila, Asava-Arista and Basti kalpa, etc.
 - b) Semi Solid Dosage forms – Avaleha, Ghrita, Kalka, etc.
 - c) Solid dosage forms – Churna, Gutika, Vati, Varti, Guggulu, Kshara, Lavana, Tablet, Capsules, etc.
 - d) Pathya / Aahara kalpana- Krita- akrita and Aushadh Siddha.
 - e) Topical dosage forms – Malahara, Upanaha, Lepa, Udvardana, Karnapuran, Anjan, Ascchyotanadi Netra Kalpa, Nasya Kalpa and Mukha Kalpa.
 - f) Preparation of Ksharasutra.
3. Study of organoleptic and physico-chemical characteristics, determination of heavy metal content and microbial load in different formulations.
4. Study of therapeutic uses, dosage and method of applications of different dosage forms described in Bhaishajya Kalpana.
5. Introduction to methods of packing and storage of drugs.
6. Introduction to new dosage forms –
 - a) Neutraceuticals and food supplements.
 - b) Concept of Organic food and Genetically Modified Food
 - c) Cosmeceuticals / Cosmetics – Study of ingredients used in various cosmetic products such as creams, powders, lotions, hair oils, toiletries, etc.
 - d) Introduction to raw materials of plant origin like fixed oils, waxes, gums, hydrophilic colloids, colours, perfumes, protective agents, bleaching agents, preservatives, antioxidants and other ancillary agents.
 - e) Plant Products – Evaluation of plant products using physico-chemical studies in whole form and identification of chemical components.

PAPER – II

Pharmaceutical Technology of Rasaushadhi

Theory – 100 Marks

PART A

1. Introduction to technical terminologies used in Rasashastra
2. Knowledge and application of yantra, puta, musha, chullika, koshti etc. used in preparation of Rasaushadhis.
3. Introduction to current technology and equipments such as heating appliances like furnaces, boilers, drying chambers, heating mantles, hot plates, gas stoves, mixers, grinders,

edge and end runners, mills, shifters, sieves used in pharmaceutical processing, manufacture and quality control of Rasaushadhi.

4. Concept of pharmaceutical engineering and instrumentation technology.

PART B

1. Knowledge and application of processing techniques in Rasashastra.
 - a) Shodhana of raw materials like Rasa, Maharasa, Uparasa, Sadharanarasa, Ratna-Uparatna, Vishopavisha, Dhathu and Upadhatu. (Metals and mineral containing drugs).
 - b) Marana, Satvapatana, Amritikarana, Lohitikarana, Druti Nirmana of Rasa, Maharasa, Uparasa, Sadharanarasa, Ratna-Uparatna, Vishopavisha, Dhatu and Upadhatu.
2. Definition, composition, method of preparation of following dosage forms:
 - a) Pishti
 - b) Khalvi Rasa
 - c) Parpati Rasa
 - d) Kupipakva Rasa
 - e) Pottali Rasa
3. Study of organoleptic and physico-chemical characteristics
4. Determination of microbial load and heavy metal content (wherever relevant) in different formulations.
5. Study of therapeutic uses, dosage and method of applications of different dosage forms described in Rasashastra.
6. Introduction to methods of packing and storage of Rasaushadhi.

PRACTICAL

100 Marks

Contents of Practical

1. Preparation of minimum two formulation of each class (Total 50).
2. Work experience in every pharmaceutical process.
3. Visit to two GMP certified pharmacies.

Pattern of Practical Examination

1. Practical Records	10 marks
2. Practical (Rasa Shastra)	20 marks
3. Practical (Bhaishajya Kalpana)	20 marks
4. Project Work	20 marks
5. Viva - voce	30 marks
Total	100 marks

Text Books for Reference

1. Aushadhi Guna Dharma Shastra : Vd.Gune
2. Aushadhikaran : Vd.Dhamankar

- | | |
|--|---|
| 3. Ayurved Prakash | : Madhav Upadhyaya |
| 4. Ayurvediya Rasashastra | : Dr.C.B.Jha |
| 5. Bhaishajya Kalpana Vigyan | : Dr S K Mishra |
| 6. Bhaishajya Kalpana Vigyan | : Dr.K.R.C. Reddy |
| 7. Bhaishajya Kalpana Vigyan | : Dr.S G Hiremath |
| 8. Bharat Bhaishajya Ratnakara | |
| 9. Bhavaprakasha Nighantu | : Bhavamishra |
| 10. Bhaishajya Ratnavali | : Govind Das |
| 11. Kashyapa Samhita | : Kashyapa |
| 12. Paribhasha Khanda | : Yadavji Trikamji Acharya |
| 13. Ras – Tarangini | : Sadanand Sharma |
| 14. Rasaratnasamucchya | : Rasa Vagbhata |
| 15. Rasashastra | : Dr.V.A.Dole (English) |
| 16. Rasayogasagara | : Hariprapanna Sharma |
| 17. Rasendrachintamani | : Dundukanath |
| 18. Sharangadhar Samhita | |
| 19. Relevant portions from Charak Samhita, Sushrut Samhita, Ashtanga Hridaya, Ashtanga Samgraha. | |
| 20. Bentley's T.B. of Pharmaceutics | : Rawllins |
| 21. Compendium of Medicinal Plants | : Orient Longmann |
| 22. Drugs & Cosmetic Act, 1940 and Rules 1945 | |
| 23. Industrial Pharmacy | : Lachmann |
| 24. Indian Pharmacopoeia | : Govt. of India |
| 25. Pharmacognosy of Ayurvedic Drugs | : Govt. of Kerala |
| 26. Pharmacognosy of Ayurvedic Drugs | : CCRAS |
| 27. Pharmacopoeial standards of Ayurvedic Formulations – CCRAS, 1978, 1984. | |
| 28. Quality Standards of Indian Medicinal Plants | : ICMR |
| 29. Textbook of Clinical Practice of Pharmacy | : Remington |
| 30. Textbook of Mineralogy | : Dana |
| 31. Textbook of Pharmacognosy | : Kokate |
| 32. Textbook of Pharmacognosy | : Trease & Evans |
| 33. The Ayurvedic Formulary of India | : AYUSH |
| 34. The Ayurvedic Pharmacopoeia of India | : AYUSH |
| 35. Vogel's quantitative in Organic analysis | : G.Svehla |
| 36. Vogel's Text Book for Quantitative Chemical Analysis | : G.H.Jeffery, J.Bassett,
O.Mendham. R.C.Denny |

Additional Book for Reference

- | | |
|---------------|---|
| 1. Rasasastra | : Publication Division, Govt. Ayurveda
College, Trivandrum |
|---------------|---|

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546

10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601,
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357,
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435

14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in/Open Access Peer Reviewed E-Journal*. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.
4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Ras Shastra & Bhaishajya Kalpana (Diploma in Ayurvedic Pharmaceutics)
(..... scheme)**

Paper I - Raw Materials Science

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Describe different categories of Rasadravya

Short Essays

(8 x 10)

2. Give a brief description of excipients used in Ayurveda pharmaceutical industry
3. Write the guidelines for collection and storage of drugs
4. Write the methods for determining identity ,purity and strength of a raw drug of plant origin
5. Write the therapeutic uses ,dose and important formulations of bhallataka
6. Describe the morphological and microscopic features of Guduchi
7. Describe the various heat treatments employed in Rasashastra for processing metals and minerals
8. Write a short note on Animal products used in Ayurvedic therapeutics
9. Describe the specific therapeutic properties and dose of drugs in Upavisha varga

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Ras Shastra & Bhaishajya Kalpana (Diploma in Ayurvedic Pharmaceutics)
(..... scheme)**

Paper II – Drug Standardization and Regulations

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain GMP related to Ayurvedic drug industry

Short Essays

(8x10=80)

2. Write the methods for evaluating the quality of finished products as per API (10 marks each)
3. Write the techniques for separation, identification and estimation of chemical components of a drug
4. Write a short note on adulterants and contaminants
5. Write the relevant regulatory provisions for ASU drugs in D and C act
6. Give a short description on AFI and API
7. Write the concepts of patentability with special reference to differences in Indian, US and European patents
8. Write a short note on Laws pertaining to food safety in India
9. Give a brief account on Traditional knowledge digital library

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Ras Shastra & Bhaishajya Kalpana (Diploma in Ayurvedic Pharmaceutics)
(..... scheme)**

Paper I - Pharmaceutical Technology of Kashtaushadhi

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Write the protocol for conducting Shelf life studies of different pharmaceutical products in Ayurveda

Short Essays

(8x10 = 80)

2. Give a brief description of different extraction techniques (10 marks)
3. Write the methods and instruments for size reduction in Ayurvedic pharmaceutics
4. Give a short note on current and advanced technologies of drying
5. Write the applications of packaging technology in Ayurvedic pharmaceutical industry
6. Describe the general methods for preparing Sneha
7. Explain the relevance of selecting suitable excipients in Ayurvedic cosmetic products
8. Write a short note on Ahara kalpana
9. Describe the making of tablets with a suitable example

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Ras Shastra & Bhaishajya Kalpana (Diploma in Ayurvedic Pharmaceutics)
(..... scheme)**

Paper II - Pharmaceutical Technology of Rasaushadhi

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain the relevance of Paribhasa in Rasasastra with suitable examples

Short Essays

(8x10 = 80)

2. Compare the heating methods employed in koshti and puta (10 marks each)
3. Write the method of preparation of kupipakwa rasa with a suitable example
4. Write a short note on Satwapatana
5. Write the therapeutic uses and dosage of pottali kalpana
6. Write different methods for loha (iron) marana
7. Explain the quality control parameters for Rasaushadha
8. Write a short note on storage and packing of Rasaushadhi
9. Write the different therapeutic applications of Parpati

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution

SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Rog Nidan Vidhi (Diagnostic techniques) –
D.C.P. (Ay.) (Diploma in Clinical Pathology (Ay.))**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Rog Nidan Vidhi (Diagnostic techniques) – D.C.P. (Ay.) (Diploma in Clinical Pathology (Ay.))

2.2 Objectives:

The aims of D.C.P. (Ay.) (Diploma in Clinical Pathology (Ay.)) course shall be to produce efficient Ayurved specialist in the specialty Rog Nidan Vidhi and to produce experts for research and development in the field of specialisation of Rog Nidan Vidhi.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

Theory (Two Papers) – Maximum Marks - 100 Each

Practical (One) - Maximum Marks - 100

PAPER – I

Principles of Roga Nidan and General Pathology

Theory – 100 Marks

PART A

Roga Nidan

Importance of Roga Nidan in clinical and laboratory practice.

1. Dosha Dushya Vigyan
2. Concepts of Agni and Ama
3. Concept of Vyadhi Kshamatwa
4. Sroto Vigyan
5. Nidan Panchaka
6. Shatkriya Kaal.

PART B

General Pathology

Basics of Pathology-

1. Cell injury
2. Inflammation and repair.
3. Haemodynamic disorders.
4. Neoplasia.
5. Immunopathology.
6. Environmental disorders
7. Nutritional disorders
8. Hereditary and genetic disorders

Principles of Laboratory medicine-

1. General concepts and administrative
2. Optimizing laboratory work flow and
3. Principles of instrumentation
4. Clinical laboratory automation
5. Quality Control
6. Laboratory Statistics
7. Anticoagulants
8. Biomedical waste management

PAPER – II

Vyadhivigyan, Clinical Pathology and Chemical Pathology

Theory – 100 Marks

PART A

Clinical Pathology

Haematology and Blood Banking -

1. Collection of specimen, labelling, documentation and processing
2. Staining and reporting of smears
3. Complete Haemogram.
4. Special staining methods for blood cells.
5. Investigations in haemolytic anemias and haemorrhagic disorders.
6. Bone Marrow examination
7. Haematopoiesis
8. Erythrocytic Disorders
9. Leukocytic Disorders
10. Transfusion Medicine : Blood bank serology, ABO grouping, Rh typing, special blood groups, blood banking, selection of donors, investigations in transfusion reactions.
11. Coagulation disorders

PART B

Chemical Pathology

1. Ayurvedanusara Vishesha Pariksha –Mutra-Purisha-Sweda-Rakta-Stanya- Nishtiva-Shukra-Vamita Dravya –Puya Pariksha
2. Examination of urine, body fluids and stool.
3. Collection of blood, anti coagulants, protein precipitants.
4. Colorimetry, chromatography and electrophoresis.
5. Estimation of Blood sugar , Urea ,Creatinine,Proteins,Bilirubin,Lipid profile, LFT, Uric acid, Electrolytes,Calcium and Enzymes, T3, T4, TSH, HCG, etc.
6. Use of autoanalyzer techniques.

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Laboratory Investigations	30 Marks
2. Laboratory Record Book	10 Marks
3. Long case	20 Marks
4. Long Case Record (20 Cases)	10 Marks
5. Interpretation of ECE, EEG, USG, CT, MRI	10 Marks
6. Viva-voce	20 Marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Rogi Roga Pariksha and Clinical Methods

Theory – 100 Marks

PART A

Rogi Roga Pariksha

1. Knowledge and clinical application of various examination tools mentioned in Ayurveda- Trividha pariksha, Chathurvidha Pariksha, Shadvidha Pariksha, Ashtavidha pariksha, Dasavidha Pariksha, Dwadasvidha Pariksha etc.

PART B

Microbiology, Immunopathology, Histopathology Methods Clinical Microbiology and Serology

1. Collection, handling, documentation and selection of material for important procedures.
2. Use of various microbiological stains.
3. Use of various culture media and identification of bacterias by specific procedures.
4. Antibiotic sensitivity tests.
5. Sterilization and disinfection.
6. Identification of fungi in specimen and culture.
7. Diagnostic procedures in important viral infections.
8. Serological techniques, Widal, Weil Felix, VDRL, HIV, HBV, CRP, RF, ASO and Pregnancy tests.

PAPER – II

Immuno-Pathology and Histo-Pathology

Theory – 100 Marks

PART A

Immuno-Pathology

1. Overview of the immune system and immunologic disorders.
2. Immunoassay and immunochemistry
3. Laboratory evaluation of the cellular immune system
4. Laboratory evaluation of immunoglobulin function and humoral immunity
5. Mediators of inflammation: complement systems, cytokines and adhesion molecules
6. Clinical and laboratory evaluation of immunodeficiency disorders
7. Clinical and laboratory evaluation of autoimmune diseases
8. Clinical and laboratory evaluation of hypersensitivity reactions

PART B

Histo-Pathology

1. Collection of specimen, labelling, documentation, fixation.
2. Grossing techniques and tissue processing.
3. Cutting and staining of sections, use of special stains and immunocytochemistry, frozen sections
4. Interpretation and reporting.
5. Museum techniques.
6. Cytological techniques including FNAC – preparation, staining and reporting.

PRACTICAL

100 Marks

Contents of Practical

1. Laboratory Postings in various sections of Laboratory with Laboratory record book detailing, Collection, Processing and recording of the readings, Handling of Various instruments.
2. All investigative procedures, finalisation and opinion on the report.

Pattern of Practical Examination

1. Laboratory Record book	10Marks
2. Laboratory Investigations	40 Marks
3. Spotting	10 Marks
4. Project Work	20 Marks
5. Viva-voce	20 Marks
Total	100 Marks

Text Books for Reference

1. Vyadhi Vigyan : Yadavji
2. Madhava Nidan (with Madhukosha Vyakhya)
3. Kaya Chikitsa (Part 1) : Ramraksha Pathak
4. Charak Samhita-Nidan-Vimana-Indriya Sthana
5. Charak, Sushrut, Vagbhata-Related reference
6. Rogi Roga Pariksha Paddhati : Dr.Govind Prasad Upadhyay
7. Ayurvediya Nadi Pariksha Vigyan : Dr.Govind Prasad Upadhyay
8. Vikruti Vigyan : Vd.Vidhyadar Shukla
9. Clinical Pathology : Shivnath Khanna
10. Clinical methods in Ayurveda : Dr. K.R.Srikanta Murthy
11. Ayurvediya Vikriti Vigyan and Roga Vigyan(Vol I & II) : Dr.P.S.Byadgi
12. Chest X-Ray made easy : Elsevier, Churchill Livingstone
13. Interpretation of diagnostic tests : Jacques Wallach M.D
14. Medical laboratory technology – Methods and interpretation : Dr. Sood
15. Interpreting ECG : P.J Mehta
16. Essential laboratory medicine : V.H.Talib M.D
17. Clinical radiology for medical students : G.M. Roberts, J.P.Hughes,M.D.Hariharan
18. Clinical pathology
19. Harper's illustrated biochemistry : Robert.K.Murray
20. Text book of Microbiology
21. Text book of Pathology : Robins
22. Text book of Pathology : Harshmohan
23. Pathologic basis of disease : Robbins
24. Pathology : Anderson
25. Oxford text book of Pathology
26. General Pathology : Walter & Israel
27. Systemic Pathology : Symmers
28. Surgical Pathology : Ackerman
29. Surgical Pathology and Cytology : Silverberg
30. Soft Tissue Tumours : Enzinger
31. Histopathology of the Skin : Lever
32. Gynaecologic and Obstetric Pathology : Novak
33. Diagnostic Cytology : Koss
34. Fine Needle Aspiration Cytology : Orell
35. Clinical Haematology : Wintrobe
36. Tumours of bone : Mirra
37. Haematology : De Gruchy
38. Practical Haematology : Dacie
39. Histopathology techniques : Bancroft/Culling
40. Clinical diagnosis and management by lab methods : Todd Sanford
41. Medical Microbiology : Cruickshank
42. Short textbook of Chemical Pathology : Baron
43. Essential Immunology : Roitt
44. Autopsy Pathology : Rezek Millard
45. Transfusion methods : Mollison

Additional Books for Reference

1. Roga Vijnan Vikrithi Vijnan : Publication Division, Govt. Ayurveda College, Trivandrum
2. Tridosha theory : Dr.V.V.S. Sastry
3. Glossary of clinical symptoms in Ayurveda: Dr. E. Surendran
3. Clinical Application of Dosha Assessment : Arya Vaidya Sala, Kottakkal
4. Doshabhediyaam-redfined : Arya Vaidya Sala, Kottakkal
5. Agni - Ayurvedic Concept and Application : Arya Vaidya Sala, Kottakkal
6. A working model for diagnosis in Ayurveda : Dr. P. M. Madhu
7. Nirnnaya – Manual of Clinical examinations in Ayurveda : Dr. P. M. Madhu
8. Aavaranam : Abhilash M, Lakshmi V
9. Myopathy - An Ayurvedic Perspective : Abhilash M

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707

33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in*/Open Access Peer Reviewed E-Journal. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.

4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

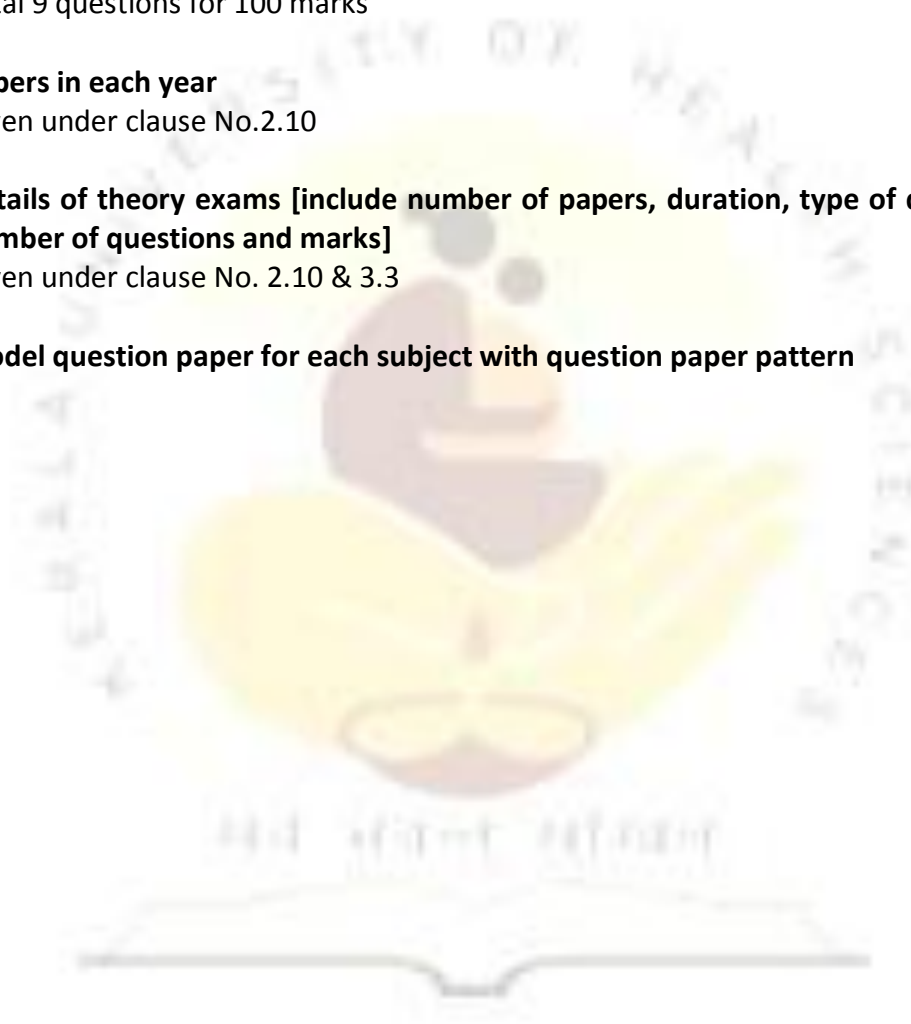
3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern



QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Rog Nidan Vidhi – (Diploma in Clinical Pathology (Ay.))
(..... scheme)**

Paper I - Principles of Roga Nidan and General Pathology

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Define and classify Srothas. Discuss the role of Medovaha srothodushti in the manifestation of type 2 diabetes mellitus.

Short Essays

(8 x 10)

2. Describe the role of jataragni and dhatwagni in the manifestation of Metabolic syndrome.
3. Discuss the samprapthi ghataka of hypothyroidism.
4. Explain shadkriyala with suitable examples.
5. Describe cellular adaptations in detail
6. Explain various mechanisms of spread of tumours.
7. Enumerate different hypersensitivity reactions and explain the pathogenesis of each type.
8. Explain different quality control methods used in laboratory.
9. Describe the importance and methods of biomedical waste management.

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Rog Nidan Vidhi – (Diploma in Clinical Pathology (Ay.))
(..... scheme)**

Paper II – Vyadhivigyan, Clinical Pathology and Chemical Pathology

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Describe the diagnostic criteria of Diabetes Mellitus. Elaborate the diagnostic tests and their clinical significance

Short Essays

(8x10=80)

2. Write down the principle of Photometric Analytical procedures. Describe the types of laboratory tests based on photometry.
3. Describe the different staining methods of blood films. Write down the clinical significance of peripheral smear in the diagnosis of anaemia.
4. Describe semen analysis.
5. Compare the clinical and laboratory features of Acute Myelogenous Leukemia (AML) and Acute lymphoblastic leukemia (ALL).
6. Describe the inheritance of blood group system. Elaborate the two most important tests performed before blood transfusion.
7. Explain the clinical significance of Ashta sthana pareeksha with special reference to Muthra and Purisha.
8. Explain the methods of blood collection and describe the types and use of various anticoagulants.
9. Detail Liver function test. What is its significance in differentiating the type of Jaundice?

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Rog Nidan Vidhi – (Diploma in Clinical Pathology (Ay.))
(..... scheme)**

Paper I - Rogi Roga Pariksha and Clinical Methods

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Enumerate Dasavidhapareeksha and discuss each pareeksha in detail.

Short Essays

(8x10 = 80)

2. Explain Jihwa pareeksha and describe the importance of tongue as a diagnostic aid in various diseases.
3. Describe shadvidhapareeksha with suitable examples.
4. Discuss the application of chathurvidhapareeksha in the diagnosis of Jaundice.
5. Describe the various sterilization techniques and disinfection methods used in clinical laboratory.
6. What are the uses of a stained preparation? Detail about Acid fast staining.
7. Detail the methods of identification of bacteria in a culture medium.
8. What are the methods involved in the laboratory diagnosis of Mycotic infections. Detail the diagnostic method of Candida Albicans.
9. What are the principles of Serodiagnostic tests? Detail about Widal test.

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Rog Nidan Vidhi – (Diploma in Clinical Pathology (Ay.))
(..... scheme)**

Paper II - Immuno-Pathology and Histo-Pathology

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Detail the chemical mediators of Inflammation.

Short Essays

(8x10 = 80)

2. What is Immunoglobulin and write about its classes
3. Explain Autoimmunity with suitable example.
4. Discuss the clinical and laboratory evaluation of AIDS.
5. Describe the laboratory tests used for the diagnosis of hypersensitivity reactions.
6. Describe the preparation, storage and mounting of Museum specimens.
7. Describe the preparation and labeling of sample for Immunohistochemistry.
8. Detail the process of Fixation of specimen in Histopathology.
9. Explain technique and significance of Fine Needle Aspiration Cytology (FNAC)

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution



SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Swasthavritta and Yoga –
D. P. H. (Ay.) (Diploma in Public Health (Ay.))**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Swasthavritta and Yoga – D. P. H. (Ay.) (Diploma in Public Health (Ay.))

2.2 Objectives:

The aims of D. P. H (Ay) (Diploma in Public Health (Ay.)) course shall be to produce efficient Ayurved specialist in clinical specialty Swasthavritta and Yoga and to produce experts for research and development in the field of specialisation of Swasthavritta and Yoga.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

**Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100**

PAPER – I

Vaiyaktika and Samajika Swasthavritta

Theory – 100 Marks

PART A

Vyaktigata Swasthyam (Individual health)

1. Definition of Swastha, Swasthavritta and Health.
2. Swasthavritta Prayojana and Mahatwam.
3. Swasthapurusha lakshana - Signs of Health.
4. Introduction to Preventive Medicine and its Terminologies.
5. Detail knowledge of Dinacharya, measures such as Danta Dhavana, Jihva Nirlekhana, Gandusha-Kavala, Pratimarsha Nasya, Anjana, Vyayama, Abhyanga, Dhumapana, Udvartana, etc and their physiological effects in terms of modern knowledge.
6. Ritucharya and its importance in Swastha Paripalana
7. Importance of Vega and their role in Health & Disease.
8. Description of Sadvritta and Achara Rasayan and their role in Prevention of psychosomatic diseases. (Satvavajaya chikitsa)
9. Concept of Nindita & Anindita purusha.
10. Introduction to Trayopastambha- Ahara, Nidra and Brahmacharya and their role in maintenance of health and their clinical importance.
11. Role of Pragyaparadha in producing diseases and Sharir Rakshanatmaka Karya- Preventive measures - Roga anutpadaniya vigyan.
12. Concept of Vyadhikshamatwa – Sahaja, Kalaja and Yuktikrit.

Ahara Vichara (Food and Nutrition)

1. Nirukti, Vivechan of Ahara; Definition of food, diet and nutrition.
2. Aharasya Swaroopam, Shadrasatvam, Panchabhautikatvam and Chaturvidhatvam.
3. Ahara mahatvam (Importance of food).

4. Aharadravya Parichaya, Vargeekarana, advantages and disadvantages of Vegetarian and Non - Vegetarian food.
5. Ahara Vidhi Vishesha Ayatana.
6. Ahara Poshana (Nutrition) - Food proximate principles - Carbohydrates, Proteins, Fats, Vitamins etc., their functions, deficiency disorders and prevention. Diet in different types of diseases.
7. Balanced diet

Nidra (Sleep)

Definition, physiology, types, proper way of sleep and its relation to Health and Disease.

Brahmacharya (Celibacy)

1. Vyakhya, Lakshana (Characteristic)
2. Importance and Utility of Brahmacharya
3. Abrahmacharya Vyakhya
4. Vyavaya Sambandhi Niyama
5. Effect of Ativyavaya
6. Veeryotpatti
7. Veerya Naasha Phala
8. Veerya Rakshanopaya
9. Menstrual Hygiene (Stri Ritucharya)

PART B

Samajika Swasthavritta (Social Hygiene)

1. Concept of Health, Health for all (H.F.A.) (Sarvesham Krute Arogyam).
2. Concept of Disease
3. Concept of Prevention

Introduction to Public Health

1. Definition of Hygiene, Public Health, Sanitation etc.
2. Health systems and Health Services in India.

Environment and Health

1. Water
2. Air and ventilation
3. Soil and residential dwellings (Healthful Environment of Housing).
4. Light, sound and radiation
5. Disposal of waste products (solids and liquids) [sewerage system].
6. Hospital waste management (Biomedical waste management)
7. Sanitation of fairs, festivals and villages.
8. Methods of disposal of dead body
9. Medical entomology

Industrial Health

1. Ergonomics
2. Health hazards of Industries.

3. Prevention and controlled measures of occupational diseases.
4. Measures of health protection in Industries.
5. ESI Act
6. Indian Factory Act.

School Health

1. Construction of school/college building
2. Arrangement of light, ventilation, water supply

Aturalaya bhavan nirmana (Hospital building construction)

PAPER – II

Janapadodhwamsa and Yoga – Nisargopachara

Theory – 100 Marks

PART A

Janapadodhwamsa (Epidemiology)

1. Janapadodhwamsa- causes, manifestation and measures of its control.
2. Introduction to Basic epidemiology
3. Selected definition of infectious disease epidemiology like - infection, contamination etc.
4. Epidemiological Triad - Agent, Host and Environment.
5. Dynamics of disease transmission.
6. Screening for disease.
7. Classification of infectious diseases.
8. Disease prevention and control- notification, isolation, quarantine, etc.

Disinfection/Visankramana - Definition and types

Immunity - Definition, types of Immunity, Immunizing agents, Immunization schedule and hazards of Immunization

Health Statistics / Vital Statistics

1. Definition of statistics/ health statistics
2. Sources and uses of health statistics
3. Collection, classification, presentation and interpretation of data
4. Mortality, morbidity and fertility rate

PART B

Yoga – Nisargopachara

Yoga

1. Introduction to Yoga.
2. History, Nirukti, Vyutpatti and Paribhasha of Yoga.
3. Aims and Objectives of Yoga in relation to Ayurveda.
4. Different schools of Yoga.

5. Scriptural basis of Ashtanga Yoga according to Patanjali Yoga Sutra, Bhagavad Geeta and Yoga Vashishta.
6. Introduction to Meditation and its techniques
7. Introduction to Yogic diet and behaviour.
8. Description of Hatha Yoga and Shatkarma - Neti, Dhauti, Nauli, Trataka, Basti and Kapalabhati; Kundalini Yoga.
9. Description of Bandha, Mudra, Shatchakra, Panchakosha and Nadi.

Nisargopachara (Naturopathy)

1. Definition, history and basic principles of Naturopathy.
2. Concept of Naturopathy in disease manifestation and diagnosis
3. Aims and objectives of Nisargopachara
4. Relation of Ayurveda and Naturopathy
5. Schools of Naturopathy- Indian and Western
6. Importance of Naturopathy
7. Treatment modalities of Naturopathy.
8. Vishranti – Role of rest and relaxation.

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Spotting	20 Marks
2. Kritanna kalpana	20 Marks
3. Yoga	15 Marks
4. Dinacharya	15 marks
5. Compilation	10 marks
6. Viva-voce	20 marks
Total	100 Marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Applied aspects of Vaiyaktika and Samajika Swasthavritta in Swasthya Rakshan

Theory – 100 Marks

PART A

Vaiyaktika Swasthavrittam (personal hygiene)

1. Description and Applied aspects of regimens of Dinacharya, Ratricharya, Ritucharya with practical knowledge of preventive aspects.

2. Shodhana therapy in Swastha Purusha
3. Garbhini, Sutika Paricharya and Balopachara (preventive O.B.G and paediatrics)
4. Malnutrition and its preventive measures
 - a) Santarpana apatarpana janya vikar and its preventive measures
 - b) Assessment of nutritional status and Nutritional surveillance
 - c) Nutritional problems in public health.
 - d) National Nutritional Programmes.
 - e) Food Hygiene and food poisoning.
5. Concept of Rasayan/Jara (Preventive Geriatrics)

PART B

Samajika Swasthavritta (Community Health Care)

1. Health Care Management
 - a) Health Administration at International, Central, State and Local level.
 - b) Health schemes programmes in India
 - c) National eradication and control programmes of declared communicable diseases
 - d) Community development programmes.
 - e) Health Education and communication.
 - f) Laws related to Health (Medical Legislation).
 - g) Primary Health Care in India.
 - h) International Health Organizations - WHO, UNICEF etc.
 - i) Disaster management.
 - j) Hospital management
2. Family Welfare Programmes (Parivara Kalyana Karyakrama)
 - a) Demography
 - b) Definition and scope of family planning.
 - c) Family planning methods (both Modern and Ayurveda).
 - d) Family planning services.
 - e) National family planning programmes including R.C.H. programme.
 - f) Establishment of MCH centre, urban family welfare centre and their role in community health.
 - g) School health programmes.
 - h) Care of handicapped children.
 - i) Care of senior citizen.
3. Concept of Mental health- Manasika swasthya – Ayurvedic perspective.

PAPER – II

Aupasargika - Anoupasargika Roga Pratishedha and Applied Aspects of Yoga – Nisargopachara

Theory – 100 Marks

PART A

Aupasargika evam Anoupasargika Roga Pratishedha

1. Communicable disease prevention and their management
 - a) Ayurvedic aspect of Kuprasangaja roga and Aupasargika roga.
 - b) Laboratory investigations for detection of various infectious diseases.
 - c) Description and preventive measures of viral, bacterial, vector borne and other communicable diseases.
 - d) Description and preventive measures of various STD's (HIV/ AIDS)
 - e) Emerging and re-emerging infectious diseases like SAARS, Chikungunya, Bird-flu etc.
 - f) Hospital acquired infections
2. Non-communicable diseases and their management– Hypertension, Cancer, Obesity, Blindness, Diabetes, etc.
3. Health promotive nutrition in Ayurveda like Balya, Urjaskara, Hridya, Chakshushya Dravya etc.
4. Disaster management in Natural calamities

PART B

Yoga

1. Practical application of Ashtanga Yoga
2. Practising of Asana with precautions.
3. Individual Yoga practice- procedures, indications, contraindication and their effect on various organs and Dosha
 - a) Standing Position Asana- Tadasana, Vrikshasana, Chakrasana, Ardhakati Chakrasana, Trikonasana, Parivrittatrikonasana and Ardhashakrasana.
 - b) Sitting position Asana (Meditative Asana)- Padmasana, Vajrasana, Siddhasana etc.
 - c) Cultural Asana- Ardhamatsyendrasana, Gomukhasana, Yogamudrasana, Pashchimottanasana, Janushirshasana, Baddhakonasana, Ushtrasana, Kukkutasana, Kurmasana.
 - d) Supine Asana- Pavanamuktasana (Purna and Ardha), Ekapada Uttanasana, Halasana, Matsyasana, Viparitarikarani, Sarvangasana, Chakrasana, Suptavajrasana, Ekapadasana and Shavasana.
 - e) Prone position Asana - Bhujangasana, Naukasana, Shalabhasana, Dhanurasana, Mayurasana, Makarasana.
4. Practice of Pranayama – Bhastrika, Ujjayi, Suryabhedhi, Chandrabhedhi, Anuloma- Viloma, Bhramari, Sheetali and Sheetkari.
5. Shatkriya practice - Neti, Nauli, Dhouti, Trataka, Kapalabhati, Shankhaprakshalana, Agnisara.
6. Practice of Bandha and Mudra.

7. Practices of meditation and its importance in maintenance of health.
8. Therapeutic application of yoga for various diseases and conditions.
9. Researches conducted for management of diseases by Yoga and their results.

Nisargopachara

1. Jala Chikitsa (Hydrotherapy) –
 Different types of water used in treatment.
 Different types of baths and their indications and contra indications.
 Steam bath- indications and contra indications
2. Surya Rashmi Chikitsa (Solar therapy) - Mahatwa and methods of sun bath.
3. Mrittika Majjana- Mud therapy
4. Diet therapy
5. Upavasa (fasting) - techniques and benefits
6. Mardanam (massage) -Techniques and therapeutic effects

PRACTICAL

100 Marks

Contents of Practical

1. Family planning appliances like condom, copper-T, oral pills, etc.
2. Educational visits – P.H.C, Family Welfare Centre, Leprosy sanatorium, Rural Ayurvedic dispensary, M.C.H centre.
3. Health survey and field work in rural community.
4. Participation in National Health Programmes like immunization programmes and such other programmes, active participation in various health event days i.e. WHO day, AIDS day, etc.
5. Clinical Suggestion-Field Study-Case taking, recording and discussion of
 - a) Non-infectious diseases
 - b) Infectious disease
 - c) Rugnapatrika regarding Yoga and Naturopathy
 - d) Antenatal cases
 - e) Vaccination report and Malnutrition - each of 10 cases
6. Applicability and management of the Janpadodhvansa in present era.
7. Applied aspect of the Pathyapathya, Dincharya, Ritucharya and Yoga.

Pattern of Practical Examination

1. Case Record in respect to Pathyapathya, Dincharya, Ritucharya and Yoga	10 Marks
2. Therapeutic application of Yoga and Naturopathy	20 Marks
3. Spotting	20 Marks
4. Project Work	20 Marks
5. Viva-voce	30 Marks
Total	100 Marks

Text Books for Reference

1. Brihatrayee - Laghutrayee - related portion
2. Hatha Yoga Pradeepika
3. Patanjalyogapradeep
4. Yogavashistha
5. Gherand Samhita
6. Swasthavritta Samucchaya : Vd Pandit Rajeshwardatta Shastri
7. Swasthya Vigyan : Dr. B.G. Ghanekar
8. Yoga aur Ayurveda : Acharya Rajkumar Jain
9. Swasthavritta Vigyan : Ram Harsh Singh
10. Preventive and Social Medicine : K. Park
11. Preventive and Social Medicine : Yashpal Bedi
12. Preventive and Social Medicine : Kulkarni
13. Preventive and Social Medicine : Mahajan
14. Dr. Reddy's Comprehensive guide to Swasthavritta (Chowkhamba Sanskrit Pratishtan) New Delhi : Dr.P. Sudhakar Reddy
15. Food and Nutrition Part I & Part II : M. Swami Nathan
16. WHO publications on preventive and social medicine
17. Kashyapa Samhita
18. Yogaratnakara

Additional Books for Reference

- 1). Ayurvedic perspective of Communicable diseases - Dr KV Dileepkumar
- 2). Ergonomics in Ayurveda - Dr MC Sobhana

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.

4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875

24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357,
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in*/Open Access Peer Reviewed E-Journal. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.
4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.
The pattern is long essay for 20 marks -one question
Short essay 10 marks - Eight questions
Total 9 questions for 100 marks

3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Swasthavritta and Yoga (Diploma in Public Health (Ay.))
(..... scheme)**

Paper I - Vaiyaktika and Samajika Swasthavritta

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Explain the role of Dinacharya procedures in maintaining Health

Short Essays

(8 x 10)

2. Biomedical waste management
3. Define Nidra, types and its role in maintenance of health
4. Write the concept of prevention of diseases
5. Explain the importance of Sadvritta in preventing psychosomatic disorders
6. Write about the construction of Hospital building
7. Describe 'Ahara vidhi viseshayathanas'
8. Preventive and Control measures of Occupational Diseases
9. Methods of disposal of Dead body

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Swasthavritta and Yoga (Diploma in Public Health (Ay.))
(..... scheme)**

Paper II – Janapadodhwamsa and Yoga – Nisargopachara

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Describe in detail Shatkarma mentioned in Yoga

Short Essays

(8x10=80)

2. Briefly explain the components of Epidemiological Triad
3. Describe Panchakoshas
4. Explain the different types of Disinfection with examples
5. Write the basic principles of Naturopathy
6. What are Immunizing Agents? Explain
7. Explain the diet and behaviour indicated for a Yogi
8. What are the sources and uses of Health Statistics ?
9. Explain the causes, manifestations and control measures of Janapadodhwamsa

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Swasthavritta and Yoga (Diploma in Public Health (Ay.))
(..... scheme)**

Paper I

Applied aspects of Vaiyaktika and Samajika Swasthavritta in Swasthya Rakshan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Define Family Planning and write the various methods of Family Planning

Short Essays

(8x10 = 80)

2. Concept of Rasayana in Old age (Preventive Geriatrics)
3. Explain Disaster management
4. Briefly describe Garbini and Soothika paricharya
5. Primary Health Care in India
6. Describe the importance of Sodhana Therapy in Swastha purusha
7. Briefly explain the Nutritional Programmes in India
8. Applied aspects of regimen of Varsha and Greeshma Rithus
9. Concept of Mental Health in Ayurveda

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Swasthavritta and Yoga (Diploma in Public Health (Ay.))
(..... scheme)**

Paper II

**Aupasargika - Anoupasargika Roga Pratishedha and Applied Aspects of
Yoga – Nisargopachara**

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Describe the procedure, indications, contraindications and effects of Ardhakateerjapada, Baddhakonasana, Halasana and Naukasana

Short Essays

(8x10 = 80)

2. Briefly explain Sexually Transmitted diseases and write its Preventive and Control Measures
3. Define Pranayama and write the types, procedure and effects
4. Explain the different types of Disinfection with examples
5. Briefly explain the procedure, indications, contraindications and effects of Steam bath and Hip bath
6. Describe health promotive nutrition in Ayurveda
7. What are Hospital acquired Infections? Explain
8. Therapeutic application of Yoga in Asthma and Hypertension
9. Briefly explain Obesity and its management

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution

SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Balroga –
D.Ch. (Ay.) (Diploma in Pediatrics (Ay.))**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Balroga - D.Ch. (Ay.) (Diploma in Pediatrics (Ay.))

2.2 Objectives:

The aims of D.Ch. (Ay.) (Diploma in Pediatrics (Ay.)) course shall be to produce efficient Ayurved specialist in clinical specialty Balroga, to produce experts for research and development and to produce the skills and competence to diagnose and manage the conditions in respective area of specialisation of Balroga.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

**Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100**

PAPER – I

Kaumarbhritya- Siddhanta (Fundamentals of Kaumarbhritya)

Theory – 100 Marks

PART A

Kaumarbhritya Paribhasha and Parichaya (Definition and Introduction), Pratishedha evam Samudayika Bal-Swasthya (Preventive and Community Paediatrics) and Bal-Panchkarma (Paediatric Panchkarma)

1. Definitions, Vaya vibhajan (classification of age), Raksha Karma, Lehan, Vyadhikshamatva and Vardhanopaya (concept of Immunity, Immunization), National Programme on child health care, role of Ayurveda in National Programme, Bhesaja and Bhesaja-Matra (Brief about the drugs and drugs dosages in children)

2. Bal-Panchkarma (Paediatric Panchkarma): Fundamentals of Purvakarma, Pradhan Karma and Paschata Karma in relation to Children. Panchkarma management of various paediatric disorders like Mashtishkaghat (Cerebral Palsy), Pakshaghat (Hemiplegia) Mamsagatvata (Muscular Dystrophy), Ardita (Facial Palsy), Ekangaghata (Monoplegia), Adharangaghat (Diplegia), Apasmara (Epilepsy), and Mastishka-shotha and Mastishkavarana-shotha janya updrava (Encephalitis and Post Meningitis Sequele) Aamvata (Rheumatoid Arthritis), Shwasgata Roga (Respiratory Disorders) and Twak Vikar (Skin Disorders)

PART B

Balroga Nidan (Paediatrics Diagnostic Techniques) and Chikitsalaya Prabandhan (Hospital Management)

1. Vedanadhyaya, clinical examination of children, Roga and Rogi Pariksha Vidhi, common laboratory investigations including biochemical, haematological, urine and stool tests, use of X-ray, USG.

2. Chikitsalaya Prabandhan (Hospital Management) – Hospital function, staff pattern and their utilization, work load, maintenance of medical records, equipments and standards,

evaluation of clinical services specific to paediatric hospital services and financial management in Hospital.

PAPER – II

Kaumarbhritya-Samanya Vivechana (General Pediatrics)

Theory – 100 Marks

PART A

Vridhhi evam Vikasakram-Samanya evam Vikriti (Growth and Development along with related disorders), Poshana evam Kuposhanajanya Vyadhi (Nutrition and Nutritional disorders)

1. Important milestones in Infancy and early Childhood in the areas of gross motor, fine motor, language and personal-social development.
2. Anthropometry: Measurement and interpretation of weight, length/height, head circumference, mid arm circumference.
3. Dwarfism and other common genetic disorders related to growth and development.
4. Poshana evam Kuposhanajanya Vyadhi (Nutrition and Nutritional disorders)
5. Nutrition, nutritional requirements, nutritional disorders- Parigarbhika, Bal-Shosha, Karshya, Phakka.
6. Protein Energy Malnutrition: Definition, classification, clinical features of Marasmus and Kwashiorker. Etiology and management of PEM.
7. Vitamins-Diagnosis of vitamin deficiencies, hypervitaminosis and their management.

PART B

Bal-Manovigyan evam Vyavaharajanya Vikar (Child psychology and behavioral disorders) and Atyayika Chikitsa (Emergency Management)

1. Mental development, ADHD, Pica, Nocturnal Enuresis, Learning Disability, Autism, etc.
2. Atyayika Chikitsa (Emergency Management), Visha-Chikitsa: Principles of Management of common poisons.
3. Anya Atyayika Avastha evam Chikitsa (Other emergency conditions and their management) - Status Asthmaticus, Status Epilepticus, Shock and Anaphylaxis in children, Fluid and Electrolyte management, Epistaxis, etc.
4. Different paediatric emergency procedures e.g. venepuncture, pleural tap, ascetic tap, blood transfusion and monitoring, lumbar puncture and blood sampling, etc.

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Long case	40 Marks
2. Short case	20 Marks
3. Spotting	20 Marks
4. Viva-voce	20 Marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each

Practical (One) - Maximum Marks - 100

PAPER – I

Navjata Shishu Paricharya (Neonatal Care)

Theory – 100 Marks

PART A

Garbha Vigyaniya (Embryology) and Navjata Shishu Paricharya (Neonatal Care):

1. Garbha Vriddhi evam Vikasa (fetal growth and development), Garbha Poshana (fetal circulation, changes in fetal circulation after birth). Garbhopaghatakar Bhava (factors affecting fetal growth and development), Congenital Anomalies, Beejabhagavayava Vikriti (Genetic disorders)
2. Navjata Shishu Paricharya (Neonatal Care)
3. Sadyojat Shishu Paricharya: Definition – Live birth, neonate, neonatal period, classification according to weight and gestation, mortality rate, delivery room management, care of newborn, normal variations and clinical signs in the neonate, temperature regulation and transport of sick neonates.
4. Navjat Shishu Ahara (Neonatal feeding): Principles of feeding, Stanya (Breast milk) and their properties, Stanya Pariksha (examination of milk), Breast feeding, Problems in breast feeding.

PART B

Navjata Shishu Vyadhi (Neonatal Disorders) and Navjata Shishu Kaksha Prabandhan (Nursery Management)

1. Pranapratyagaman (Neonatal resuscitation), Knowledge of traumatic disorders including perinatal injuries, Ulvaka (Aspiration pneumonia), Navjat Shvasavarodha (Asphyxia neonatorum): Clinical features, principles of management and prevention of Birth Asphyxia, Kamala (Neonatal Jaundice); Neonatal infections- Superficial infections, Sepsis, Hypoglycemia, Hypocalcaemia, Anemia, Necrotizing Enterocolitis, Akshepaka (Seizures),

Raktavaishamyata (Rh and ABO Incompatibility), Sadhyojata Atyayaika Chikitsa (Management of Neonatal emergencies)- Diagnosis of life threatening conditions in neonates, management of common minor paediatric surgical disorders, hemorrhagic diseases of newborn.

2. Navjata Shishu Kaksha Prabandhan (Nursery Management) - Nursery plan, staff pattern, maintenance of medical records, Visanukramikarana (Sterilization), knowledge of equipments used in nursery such as resuscitation equipments, open care system, phototherapy, etc.

PAPER – II

Balroga (Pediatric Disorders and their Management)

Theory – 100 Marks

PART A

1. Annavaha Srotasa Vikar (Gastrointestinal disorders)- Atisara (Diarrhoea), Assessment of dehydration, ORT/ ORS. Jirnatishara (Persistent/ Chronic Diarrhoea), etc.
2. Pranavaha Srotasa Vikar (Respiratory disorders)- Pratishyaya, Kasa (ARI), Pneumonia, Tamaka Swasa (Bronchial Asthma), etc.
3. Rasavaha and Raktavaha Srotovikar (Haemopoietic, Cardiovascular disorders)-Yakrita Shotha, Yakritodar (Hepatitis/Hepatomegaly), Pandu (Anemia), CHF, Thalassemia, etc.
4. Mutravaha Srotasa Vikar (Urinary disorders)- Acute post streptococcal glomerulonephritis, Nephrotic syndrome (Vrikka-shotha), Mutrakriccha (Dysuria), Mutraghata (Acute Renal Failure), etc.

PART B

Aupsargika Roga, Krimi and Tvak Vikar (Infection, infestation and skin disorders) and Anya-Vikar (Miscellaneous Disorders)

1. Common bacterial, viral and parasitic infections with special reference to vaccinepreventable disease: Rajyakshma Roga (Tuberculosis) , Rohini (Diphtheria), Kukkur Kasa (Whooping cough), Aptanaka (Tetanus including neonatal tetanus), Romantika (Measles, Mumps, Rubella and Chickenpox), Antrika Jwar (Typhoid and Viral hepatitis), Pravahika (Amoebiasis), Krimi Roga (Giardiasis and Intestinal helminthiasis); Vishama Jwar (Malaria, Kala Azar and Dengue Fever), Ahiputana (Napkin rashes), Shakuni (Impetigo), Sidhma, Pama, Vicharchika, Charmadal (Infantile atopic dermatitis).
2. Anya-Vikar (Miscellaneous Disorders): Jwar (Fever), rational management of PUO, clinical features, diagnosis, investigations, treatment and prevention of Aam-Vatik Jwara (Acute rheumatic fever), Basic concepts of Bal graha (specific syndromes).
3. Vata/Nadivaha Samsthan (CNS Disorders): Clinical diagnosis, investigations and treatment of pyogenic meningitis, encephalitis and tubercular meningitis. Apasmara (Seizural disorder) - causes and types of convulsion at different ages, diagnosis, categorization and management of epilepsy.
4. Antahsravi Granthi Vikar (Endocrinal disorders).

PRACTICAL

100 Marks

Contents of Practical

1. Kaumarbhritya- History taking, Clinical examination and complete record keeping – 10 cases
2. Navjata Shisu- History taking, Clinical examination and complete record keeping – 15 cases
3. Exposure of various Panchkarma Procedures in Balroga Practice – Minimum 50 procedures
4. Exposure to Neonatal Intensive Care Unit - The candidate should be posted in Neonatal Intensive Care Unit for atleast 150 hours per year.
5. Exposure to Pranapratyagaman Vidhi (Resuscitation Techniques) - The student should have exposure of Resuscitation Techniques on newborn “Mankin” and Live.
6. Exposure to use various instruments used in Neonatal Care Unit like Incubator, Radiant Warmer, Phototherapy, Bag and Mask etc.
7. Exposure to Immunization practices

Note: The Logbook and Case Record to be maintained and duly signed by teacher and Head of the department.

Pattern of Practical Examination

1. Case Record	10 Marks
2. Case Taking	
a) Short Case	10 Marks
b) Long Case	20 Marks
3. Identification of instruments	10 Marks
4. Project Work	20 Marks
5. Viva-voce	30 Marks
Total	100 Marks

Text Books for Reference

1. Kashyap Samhita or Vridhajivakiya Tantra; with English translation and commentary
: Prof. (Km.) P. V. Tewari with Dr. Neeraj Kumar, Dr. R. D. Sharma and Dr. Abhimanyu Kumar
2. Kashyapa Samhita (Hindi translation) with commentary
: Nepal Raj Guru Pandita Hemaraja Sharma
commentary by Shri Satyapal Bhishagacharya
3. Charak Samhita : Pt. Kashi Nath Shastri, Dr. Gorakh Nath Pandey;
Vishvabharti
4. Sushrut Samhita Commentary : Ambikadutta Shastri
5. Ayurvedic concepts of Human Embryology: Prof Abhimanyu Kumar
6. Ashtanga Samgraha (Part-I &II), Hindi commentary : Atrideva Vidyalankar
7. Madhava Nidan
8. Bhava Prakasha
9. Harita Samhita
10. Clinical Methods : Meharban Singh
11. Child Health Care in Ayurveda : Prof Abhimanyu Kumar

- | | |
|---|-------------------|
| 12. Care of the Newborn | : Meharban Singh |
| 13. Text book of Paediatrics | : Nelson |
| 14. Principles and Practice of Paediatrics in Ayurveda: | Prof CHS Shastri |
| 15. Bal Chikitsadarsh | : Dr. RD Sharma |
| 16. Kaumarbhritya | : Dr. D.N. Mishra |

Additional Books for Reference

1. Text Book of Kaumarabhritya : Publication Division, Govt. Ayurveda College, Trivandrum
2. Sadhana- A complete Guide on Kasyapa Samhita : Dr. Lekshmi. M. K
3. Clinical paediatrics in Ayurveda : Dr. Dinesh. K. S
4. Manual of Ayurvedic Paediatrics : Dr. Dinesh K. S

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601,
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906

34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in*/Open Access Peer Reviewed E-Journal. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.

4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

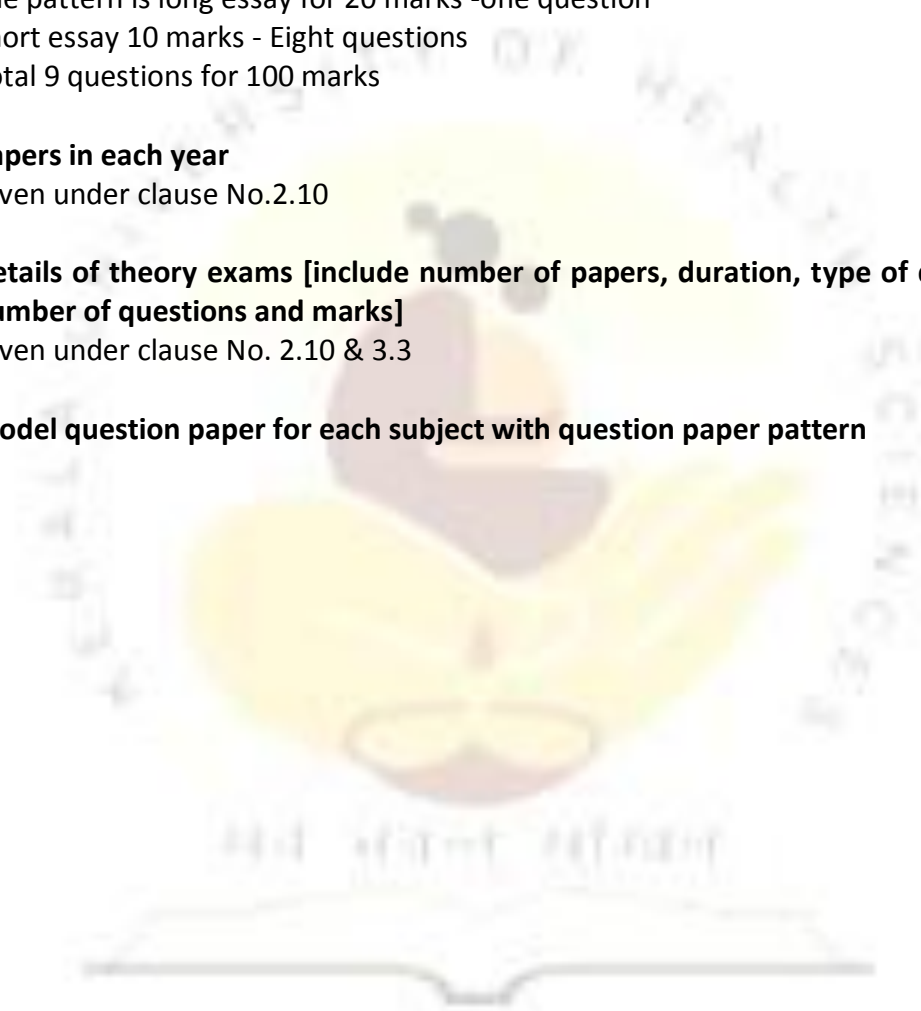
3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern



QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Balroga – (Diploma in Pediatrics (Ay.))
(..... scheme)**

Paper I - Kaumarbhritya- Siddhanta (Fundamentals of Kaumarbhritya)

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Explain Raksha karma in children. Narrate its importance in current scenario

Short Essays

(8 x 10)

2. Describe swedana in children
3. Define lehana
4. National programme on child health care
5. Explain posology in children
6. Detail the panchakarma procedures in cerebral palsy
7. Explain the importance of vedanadyaya
8. Age classification according to Ayurvedic & modern parlance
9. Explain maintenance of medical records in Paediatric Hospital

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Balroga – (Diploma in Pediatrics (Ay.))
(..... scheme)**

Paper II – Kaumarbhritya-Samanya Vivechana (General Pediatrics)

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain important areas of milestone in children

Short Essays

(8x10=80)

2. Explain important anthropometric measures
3. Malnutrition disorders
4. Sayya mutra
5. Attention Deficit Hyperactivity Disorder
6. Pervasive developmental disorders
7. Management of phakka
8. Status epilepticus
9. Venepuncture

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Balroga – (Diploma in Pediatrics (Ay.))
(..... scheme)**

Paper I - Navjata Shishu Paricharya (Neonatal Care)

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain Navajata Shishu Paricharya

Short Essays

(8x10 = 80)

2. Asphyxia neonatorum
3. Rh & ABO incompatibility
4. Sthanyapareeksha
5. Neonatal feeding
6. Explain Bheejabhagaavayavavikruti with Example
7. Garbhopaghatakara bhava
8. Neonatal jaundice
9. Phototherapy

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Balroga – (Diploma in Pediatrics (Ay.))
(..... scheme)**

Paper II - Balroga (Pediatric Disorders and their Management)

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain athisara in children with management

Short Essays

(8x10 = 80)

2. Nephrotic syndrome
3. Krimirolga
4. Rajayakshma
5. Charnadala
6. Seizure disorders
7. Hypothyroidism
8. Antrikajwara
9. Apasmara

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution

SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Panchakarma –
D. Panchkarma**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Panchakarma – D. Panchkarma

2.2 Objectives:

The aims of D. Panchkarma course shall be to produce efficient Ayurved specialist in clinical specialty Panchakarma and to produce experts for research and development in the field of specialisation of Panchakarma.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

**Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100**

PAPER – I

Introduction to Snehana, Swedana, Vamana and Virechana Karma

Theory – 100 Marks

PART A

Introduction

1. Basic Principles of Ayurveda and Kayachikitsa.
2. Derivation, Definition, History, Origin and scope of Panchkarma.
3. Panchkarma in Ashtanga Ayurveda.
4. Indication for Shodhana and Shamana Therapy.
5. Qualities of Panchkarma Vaidya.

Snehana

1. Etymology and definition of Sneha and Snehana.
2. Introduction and General consideration about Snehana.
3. Snehashrayas.
4. Properties of Snehana Dravya.
5. Classification of Snehana.
6. Quality and utility of Uttama Sneha.
7. Snehapaka vidhi with their varieties and uses.
8. Indications and contraindications of Snehana.
9. Abhyantara Snehana – Acchapanas, Snehavicharana, Sadyasnehana and Avapidaka Sneha.

Swedana

1. Etymology and definition of Swedana.
2. General consideration about Swedana.
3. Properties of Swedana and Swedopaga Dravya.

4. Classification of Swedana therapy.
5. Indications and contraindications.

Upakalpana

1. Knowledge about the materials, equipments and instruments used in Panchkarma and physical medicine.
2. Knowledge of technical modification of equipments to be used in Panchkarma.
3. Knowledge of Ahara and Aushadhi Kalpana used in Panchkarma.

PART B

Sharir Vivechana in relation with Panchkarma

1. Concept of Twacha, Kaal, Ashaya, Kostha, Shakha, Srotas, Nasa Sharir Pranayatana, Shatchakra, Nadi, Peshi, Snayu, Sandhi, Marma and their implication in the practice of bio-purificatory and rehabilitative procedures of Panchkarma.
2. Concept of 'Gut Brain', its relevance to Vata System and Basti Therapy.

Vamana Karma

1. Etymology and definition
2. General consideration
3. Properties of Vamaka and Vamanopaga Dravya.
4. Vamaka dravya according to various Samhita.
5. Vamana Yoga and their different ways of administration.
6. Sadyo Vamana and its utility.
7. Indications and contra-indications (general and specific) in various diseases and their stages.
8. Dose fixation- general and specific.

Virechana Karma

1. Etymology and definition
2. General consideration
3. Properties of Virechaka and Virechanopaga Dravya
4. Virechana Dravya according to various Samhita
5. Types of Virechana and administration method
6. Indications and contra-indications (general and specific) in various diseases and their stages
7. Dose fixation- general and specific.

PAPER – II

Introduction to Basti, Nasya, Raktamokshan and Physiotherapy

Theory – 100 Marks

PART A

Basti Karma

1. Etymology and definition
2. General consideration and introduction
3. Classification of Basti
4. Drugs useful in Basti
5. Indications and contraindications (General and Specific) of Basti Kalpana in various diseases and their stages
6. Description of Basti Yantra - Basti Netra and Basti Putaka
7. Dose fixation of Niruha and Anuvasana Basti

Uttar Basti

1. Definition of Uttar Basti
2. Uttar Basti Netra and Basti Putaka
3. Dose of Uttar Basti both in Male and Female / Sneha and Kashaya Basti

PART B

Nasya Karma

1. Etymology and definition
2. General consideration and introduction
3. Nasya Dravya according to various Samhita
4. Classification of Nasya
5. Indications and contraindications
6. Dose fixations of different Nasya
7. Detailed study of different Nasya formulations like Ksheerabala/Anutaila/Shadbindu, etc.

Raktamokshan

1. Definition
2. General principles of Raktamokshan
3. Classification of Raktamokshan
4. Indications and contra - indications
5. General and specific indications of different Raktamokshan techniques

Physiotherapy

1. Definition
2. Introduction to physiotherapy
3. Basic principles of physiotherapy
4. Utility of physiotherapy vis a vis Ayurveda
5. Indication and contra-indications of physiotherapy in various disorders.

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Spotting/Identification	20 Marks
2. Practical	40 Marks
3. Procedure writing	10 marks
4. Record	10 marks
5. Viva-voce	20 Marks
Total	100 marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Applied aspects of Snehana, Swedana, Vamana and Virechana Karma

Theory – 100 Marks

PART A

Snehana

1. Abhyantar Snehana

Poorva karma - Rogipariksha (Examination of Patient), Koshtapariksha, Agnipariksha (Fixation of dose Diet)

Pradhana karma - Administration of Sneha

Jeeryamana (observation) – Jeerna, Ajeerna, Asnigdha, Atisnigdha Lakshana-Samyak Yoga/ Ayoga/ Atiyoga Lakshanas, Sneha Vyapat and treatment.

Pashchat karma - Pariharavishaya (Planning of shodhana).

2. Bahya Snehana

Detailed description of Lepana, Samvahana, Udvardhana, Mardana, Padaghata, Murdhni taila, Gandusha, Kavala, Abhyanga– Marma and massage, Karna poorana, Akshi tarpana, Taila dharana, Kati Basti (Tarpan), Janu Basti (Tarpan), Prishtha Basti (Tarpan), Hridaya Basti (Hridaya tarpan) etc.

3. Proper understanding of digestion and metabolism of fat.

4. Karmukatva of Snehana

5. Prescription of different Sneha Yoga in different disorders

6. Knowledge of new Sneha dravya used at present time like olive oil, groundnut oil, etc.

Swedana

1. Kerala specialities of Swedana like Churna, Pinda Sweda, Jambeera/Patrapottali/Shastikashali Pinda Swedana/ Kayaseka/ Ksheera Bhaspa Sweda, etc.
2. Administration of Swedana chikitsa- Poorvakarma
3. Samyak Yoga/Ayoga/Atiyoga lakshana
4. Swedana complications and management.
5. Karmukatva of Swedana.

PART B

Vamana Karma

Poorva karma –

1. Collection of medicine and materials
2. Examination of Patient
3. Preparation of patient

Pradhana karma –

1. Administration of vamana dravya
2. Observation of Samyakyoga/Ayoga/Atiyoga lakshana and their management.

Pashchat karma –

1. Dhumapana
2. Samsarjana and Santarpana karma
3. Parihara vishaya
4. Vyapat and its management

Physiology and pharmaco-dynamics of Vamana Karma.

Virechana Karma

Poorva karma-

1. Collection of medicines and materials
2. Examination of patient
3. Preparation of patient

Pradhana karma –

1. Administration of Virechana dravya
2. Observation of Samyakyoga/Ayoga/Atiyoga lakshana and treatment

Pashchat karma –

1. Samsarjana and Santarpana karma
2. Parihara vishaya
3. Planning of next shodhana
4. Vyapat and its management

Physiology and pharmaco-dynamics of Virechana Karma.

PAPER – II

Applied aspects of Basti, Nasya Karma, Raktamokshan and Physiotherapy

Theory – 100 Marks

PART A

Basti Karma

Administration of Basti

Niruha Basti

Poorva karma-

1. Examination of the patient according to Dosha, Aushadha, Desh, Kaal etc.
2. Preparation of medicine
3. Preparation of patient

Pradhana karma-

1. Administration of Basti
2. Observation of expulsion
3. Samyakyoga /Ayoga/Atiyoga lakshana

Pashchat karma-

1. Follow up
2. Parihara vishaya, Kaal Diet
3. Vyapat and its management.

Anuvasana Basti

Poorva karma-

1. Preparation of medicine
2. Preparation of patient

Pradhana karma-

1. Administration of Basti
2. Samyakyoga /Ayoga/Atiyoga lakshana

Pashchat karma-

1. Basti pratyagamana
2. Diet
3. Vyapat and its management

Matra Basti

Detailed study of different Basti formulations like Ksheera Basti, Vaitarana Basti, Vrishya Basti, etc.

Uttar Basti

Administration of Uttar Basti)

- a) Poorva karma
- b) Pradhana karma
- c) Pashchat karma

Physiology, pharmaco-dynamics of Uttar Basti karma

PART B

Nasya Karma

Administration of Nasya-

Poorva karma-

1. Collection of medicine and materials
2. Examination of patient
3. Preparation of patient

Pradhana karma -

1. Administration
2. Observation and follow up
3. Samyakyoga /Ayoga/Atiyoga lakshana
4. Vyapat and its management

Pashchat karma -

1. Immediate follow up
2. Dhumapana , kavala, gandusha
3. Diet
4. Parihara vishaya
5. Nasyottara karma

Physiology, pharmaco-dynamics of Nasya Karma

Raktamokshan

Administration of Raktamokshan-

Poorva karma- Collection of Jalauka (Leeches) and materials Examination of Patient, preparation of patient, preparation of Jalauka

Pradhana karma- Administration of Raktamokshana by different techniques
Observation of Samyakyoga/Ayoga/Atiyoga lakshana and
Management

Pashchat karma- Management of patient
Parihara vishaya and Parihara kaal
Vyapat and its Management

Karmukatva of Raktamokshan (pharmacodynamics)

Physiotherapy

Knowledge and administration of below mentioned Physiotherapy techniques / instruments-

1. Ultrasound
2. Magneto therapy
3. Nerve conduction therapy
4. Diathermy
5. Laser therapy
6. Ultraviolet therapy
7. Wax therapy, etc

PRACTICAL

100 Marks

Contents of Practical

1. The student should undertake the responsibility in the management and treatment of patients independently through Panchkarma and Upadrava of Panchkarma.
2. Students should have to go through exposure to all the physiotherapy procedures.
3. Student should acquire self experience of the Panchkarma procedure according to the seasons.
4. Assesment of the Vega.
5. Knowledge of Samsarjana Krama.

Pattern of Practical Examination

1. Case record	10 marks
2. Upakarma (Minor procedures)	10 marks
3. Pradhan karma (Major procedures)	20 marks
4. Identification of drugs useful in Panchkarma	10 marks
5. Project work	20 marks
6. Viva-voce	30 marks
Total	100 Marks

Text Books for Reference

1. Charak Samhita with Ayurveda Dipika by Chakrapani and Jalpakalpataru by Gangadhara
2. Sushrut Samhita with Nibhandha Samgraha by Dalhana and Nyayachandrika by Gayadasa and Panjika by Swami Kumar
3. Ashtanga Hridaya with Sarvanga Sundara and Ayurveda Rasayan commentaries
4. Ayurvediya Panchkarma Chikitsa : Dr Mukundilal Dwivedi
5. Panchkarma Vigyan : Dr Haridas Shreedhar Kasture
6. Illustrated Panchkarma : Dr G Srinivasa Acharya
7. Clinical Panchkarma (English) : Dr P.Yadaiah
8. Prayogika Panchkarma (Hindi) : Dr P. Yadaiah
9. Vividha Vyadhiyome Panchkarma (Hindi) : Dr P. Yadaiah
10. The Panchkarma Treatment of Ayurveda : Dr T.L. Devaraj with Kerala Specialities
11. Panchkarma Therapy : Dr R.H. Singh
12. Principles and practice of Basti : Dr Vasudevan Namboodri, Dr. L. Mahadevan

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419

13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601,
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277

16. Health Sciences -*healthsciences.ac.in*/Open Access Peer Reviewed E-Journal. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.
4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Panchkarma (Diploma in Panchkarma)
(..... scheme)**

Paper I - Introduction to Snehana, Swedana, Vamana and Virechana Karma

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Discuss in detail the concept of 'Gut Brain', its relevance to Vata-dosha and Vastikarma

Short Essays

(8 x 10)

2. Write about Sadyo Vamana and its utility
3. Enlist ten indications of Virechana and specify the respective stages where it is applicable
4. Give an account of classification of Sveda-karma
5. Discuss the technical modification of equipments to be used in Panchakarma
6. Write the etymology and definition of Sneha and Snehana
7. Describe the qualities of Panchakarma Vaidya
8. Prepare a note on properties of Snehana Dravya
9. Discuss the concept of Twacha and Kala with respect to bahiparimarjana chikitsa

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Panchkarma (Diploma in Panchkarma)
(..... scheme)**

Paper II – Introduction to Basti, Nasya, Raktamokshan and Physiotherapy

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain various classifications of Nasya. Write an example and indication for each classification

Short Essays

(8x10=80)

2. Write Asthanopaga and Anuvasanopaga drugs and a comparative analysis of both groups
3. Explain indications of Anuvasana
4. Write and justify the fixation of dose of Vasti
5. Explain classical instruments essential for Female Utharavasti and their current modifications
6. Explain formulation of 2 Sodhananasyataila and their indications
7. Explain and justify contra indications for Raktamokshana
8. Explain rationale for selecting different types of Raktamokshana
9. Explain the scope of Physiotherapy in Ayurveda

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Panchkarma (Diploma in Panchkarma)
(..... scheme)**

Paper I

Applied aspects of Snehana, Swedana, Vamana and Virechana Karma

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Write the procedure and mode of action of Virechana karma

Short Essays

(8x10 = 80)

2. Explain Prishtavasti and Kativasti
3. Explain Rogipareeksha before Snehana
4. Write the relevance of knowledge of Marma in Abhyanga
5. Write the Samyak, Ayoga and Atiyogalakshana of Tailasnehapana
6. Explain Shashtikashaalipindasweda
7. Explain Vamana Ayogavyapats and its management
8. Write the Physiology of Vomiting
9. Explain Samsarjana karma after Virechana

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Panchkarma (Diploma in Panchkarma)
(..... scheme)**

Paper II

Applied aspects of Basti, Nasya Karma, Raktamokshan and Physiotherapy

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Write the procedure of Snehavasti in a female patient

Short Essays

(8x10 = 80)

2. Explain Vaitaranavasti preparation
3. Write the paschat karma of Nirooha
4. Write the Pharmacodynamics of Uttaravasti
5. Explain the poorvakarma of Pradhamanasya
6. Explain the preparation of patient and Jalooka before Raktamoksha
7. Explain Nerve conduction therapy
8. Write the procedure of Avapeedanasya
9. Write the Atiyoga of Vasti and its chikitsa

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution

SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Manasik Swasthya Vigyan –
D.P.M. (Ay.) (Diploma in Psychiatry (Ay.))**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Manasik Swasthya Vigyan - D.P.M. (Ay.) (Diploma in Psychiatry (Ay.))

2.2 Objectives:

The aims of D.P.M. (Ay.) (Diploma in Psychiatry (Ay.)) course shall be to produce efficient Ayurved specialist in clinical specialty Manasik Swasthya Vigyan, to produce experts for research and development and to produce the skills and competence to diagnose and manage the conditions in respective area of specialisation of Manasik Swasthya Vigyan.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

**Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100**

PAPER – I

Manovigyan

Theory – 100 Marks

PART A

1. A brief history of Manovigyan and Manasik Roga Vigyan from vedic period to modern psychology and psychiatry highlighting Ayurvedic contribution.
2. Synonyms, qualities, functions and Bhoutikatva and Ahankarikatva of Mana.
3. Satva and Sharir relationship, relationship between Tridosha and Mana.
4. Trigunatmakatva of mana.
5. Vata and Mana relationship - applied aspects.
6. Mana, Indriya and Oja relationship.
7. Jnanotpatti Prakriya- Sensory process and perception.
8. Atma and Mana relationship - applied aspects.
9. Knowledge and application of concept of Shatchakra.

PART B

1. Manovaha srotas and its karma with sub classifications.
2. Psycho-anatomy and physiology of brain and related nervous system, psychoneuroendocrinology.
3. Behaviour, attitude and emotions.
4. Manas Prakriti – Personality.
5. Essential elements of Child psychology, Developmental psychology of child, adolescence and adult.
6. Assessment of Dhee, Dhriti and Smriti.
7. Assessment of cognition, intelligence and memory.

PAPER – II

Manas Swasthya Vigyan

Theory – 100 Marks

PART A

1. Definition of Manas Swasthya.
2. Manasik Bhava, Satva assessment and examination of mind.
3. Nidra (sleep) – normal and abnormal.
4. Manovighatakara Bhavas.
5. Classification of Manasik Roga.
6. Etiology and patho-physiology of Manasik Vikar.
7. Psychiatric and psychometric tools for diagnosis.

PART B

1. General line of treatment of Manasik Vikar.
2. Ayurvedic and modern principles of management of Manovikar
3. Preventive aspects of Manovikar – Achara Rasayan, Sadvritta, Shodhana, Rasayan
4. Oorjaskara and Manaskar Dravya
5. Psychological rehabilitation
6. Forensic psychiatry
7. Research and recent development in Manas Swasthya.

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Long case	20 Marks
2. Short case	10 Marks
3. Assessment of scales and inventories	10 Marks
4. Compilation	20 Marks
5. Procedure	20 Marks
6. Viva-voce	20 Marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Manasik Roga Vigyan

Theory – 100 Marks

PART A

1. Introduction to Bhutavidya and Graha Chikitsa.
2. General Etiopathogenesis of Unmada, classification and its modern correlation.
3. Nija Unmada and its management.
4. Agantuja Unmada and its management.
5. Chittodvega, Vishada, Atatvabhinivesha, Bhaya, Krodha, Kama, Lobha, Moha, Shoka, Maana, Dambha, etc. and their management.
6. Mood and effective disorders - Bipolar mood disorders, major depressive disorder, mania and their Ayurvedic correlation and management.

PART B

1. Madatyaya (Alcoholism), other addictions related disorders and their management.
2. Substance abuse related disorders and their management.
3. Delusional disorders: Mano - Buddhi – Sangyajanana – Smriti Vibhrama and their management.
4. Sensorial disorders: Tandra – Murcha - Sanyasa and their management.
5. Apasmara (Epilepsy) and its management along with modern perspective.
6. Nidra vikar (Sleep disorders) and their management.
7. Sex related mental disorders and their management.
8. Altered life style and stress related disorders and their management.

PAPER – II

Manas Swasthya Upakrama Vigyan

Theory – 100 Marks

PART A

1. Childhood psychiatric disorders and their management (behavioural, learning and developmental disorders).
2. Jarajanya Manasik Vikar (senile psychiatric disorders) – Dementia, Alzheimer's disease and their management.
3. Importance of Panchkarma and allied procedures in the management of Manas Roga

4. Satvavajaya Chikitsa – Definition, relevance in manasik and manodaihika vikara.
5. Applied aspect of Ashtanga Yoga in Manovikar.
6. Daivavyapashraya and Adravya Bhuta Chikitsa in Manovikar.

PART B

1. Schizophrenia and its Ayurvedic correlation and management
2. Somatoform and dissociative disorders and their Ayurvedic correlation and management
3. Importance and utility of Medhya Rasayan and Vajikaran drugs in Manas Swasthya.
4. Essentials of modern psychoneuropharmacology
5. A detailed study of Ayurvedic single and compound drugs for Manas Roga:
Single Drugs: Bramhi, Mandukaparni, Vacha, Sarpagandha, Shankhapushpi, Ashwagandha, Yashtimadhu, Guduchi, Jyotishmati, Kushtha, Tagara, Kooshmanda, Jatamansi, Swarna, Rajata, Pravala, Mukta and other useful medicines, etc.
Compound Drugs: Manasmitravati, Smritisagararasa, Unmadagajankhusharasa, Apatantrakarivati, Kumarakalyanarasa, Yogendrarasa, Kalyanakaghrita, Brahmighrita, Mahapaishachikaghrita, Panchagavyaghrita, Hingwadighrita, Kooshmandaghrita, Saraswatarishta, Ashwagandharishta, Himasagarataila, Brahmi Taila, Tungadrumadi Taila, Chandanadi Taila and other useful yoga, dhoopa, nasya and anjana yoga mentioned in the context of Apsmara and Unmada
6. Psychiatric Emergencies and their management

PRACTICAL

100 Marks

Contents of Practical

Sl.No.	Topic	No. of Cases
1.	Hypnotherapy techniques	25
2.	Case Study-	
	a) Unmada	20
	b) Apsmara	20
	c) Atatvabhinivesh	10
	d) Chittodvega	20
	e) Vishada	20
	f) Madatyaya	20
	g) Sexual disorders	05
	h) Psychogenic headache	05
	i) Nidra vikar	10
	j) Stress related disorders	10
3.	Examination of Manasik Bhava in psychosomatic illness	25
4.	Yogasana Pranayama and Meditation Techniques	25
5.	Panchkarma Procedures in Manas Roga	25
6.	Anjana, Dhoopanadi Karma	25
7.	Instruments (GSR Biofeedback, EST, ECT, EEG, etc.)	25
8.	Counselling on the pattern of Satvavajaya	25

Pattern of Practical Examination

1. Case Record	10 Marks
2. Case Presentation	10 Marks
3. Assessment of Scales and Inventories (Modern and Ayurvedic aspect)	10 Marks
4. Project Work	20 Marks
5. Viva-voce	50 Marks
Total	100 Marks

Text Books for Reference

1. Charak Samhita
2. Sushrut Samhita
3. Ashtanga Samgraha
4. Ashtanga Hridaya
5. Kashyapa Samhita
6. Harita Samhita
7. Bhagavadgeeta
8. Yogavasistha
9. Comprehensive Text book of Psychiatry : Kaplan and Saddock
10. Text Book of Child and Adolescent Psychiatry : Weiener
11. Bourne Psychology
12. Carlon Abnormal Psychology and Modern Life
13. Ayurvediya Manas Vigyan : Rama Harsha Singh
14. Concept of Mind published at Ayurveda College, Kottakkal.
15. The Mind in Ayurveda and other Indian Tradition : Dr A.R.V.Murthy
16. Psychopathology in Indian Medicine : Satypal Gupta
17. A Text Book on Medical Jurisprudence and Toxicology : Modi
18. DSM IV and ICD 10
19. Other relevant textbooks

Additional Books for Reference

1. Concept of Mind - Ed. Dr. C R Agnives
2. Sahasrayogam – Dr. Prabhakara Rao

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504

15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamya@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in/Open Access Peer Reviewed E-Journal*. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.

2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.

3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.

4. Minimum passing marks shall be 50% in theory and practical separately.

5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.

b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.

e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.

- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.
4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.
The pattern is long essay for 20 marks -one question
Short essay 10 marks - Eight questions
Total 9 questions for 100 marks

- 3.4 Papers in each year**
Given under clause No.2.10
- 3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]**
Given under clause No. 2.10 & 3.3
- 3.6 Model question paper for each subject with question paper pattern**

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Manasik Swasthya Vigyan - (Diploma in Psychiatry (Ay.))
(..... scheme)**

Paper I - Manovigyan

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Explain the development of Ayurvedic Psychiatry from vedic period to Current status

Short Essays

(8 x 10)

2. Detail the concept of Jnanotpatti prakriya
3. Explain the relationship of ojus and manas
4. Mention the shatchakras and their relevance in psychiatry
5. Write about manovahasrotus, its role in manas roga utpatti
6. Importance of manasaprakriti in chikitsa
7. Various views regarding adolescent psychology
8. Dhee, dhriti, smriti and its relevance
9. Defence mechanisms

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Manasik Swasthya Vigyan - (Diploma in Psychiatry (Ay.))
(..... scheme)**

Paper II – Manas Swasthya Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain the mental status examination in detail

-

Short Essays

(8x10=80)

2. Detail the concept of swapna with modern understanding
3. Explain two scales used for assessment of depression
4. Mention the classification of psychiatry conditions as per ICD
5. Write about unmada samanya nidana and samprapthi
6. Importance of sodhana chikitsa in apasmara
7. Detail about Forensic psychiatry
8. Recent research development in manasroga chikitsa
9. Rehabilitation and its importance in Psychiatry

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Manasik Swasthya Vigyan - (Diploma in Psychiatry (Ay.))
(..... scheme)**

Paper I - Manasik Roga Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain the principles of management of graha and its relevance in modern Psychiatry

Short Essays

(8x10 = 80)

2. Detail the principles of management of smriti vibhrama
3. Explain atatvabhinivesa along with its management
4. Mention the classification of Psychotic disorders with diagnostic criteria
5. Write about substance abuse with its ayurvedic approach of management
6. Importance of psychosexual disorders with its management principles
7. Detail about samana chikitsa in unmada
8. Recent advances in Unmada chikitsa in Ayurveda
9. Social phobia and its management

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Manasik Swasthya Vigyan - (Diploma in Psychiatry (Ay.))
(..... scheme)**

Paper II - Manas Swasthya Upakrama Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain the principles of management of types of Dementia in Ayurveda

Short Essays

(8x10 = 80)

2. Detail the principles of satvavajaya chikitsa and its application in generalized Anxiety Disorder
3. Explain the role of vasthi in manasroga chikitsa
4. Mention the application of principles of yoga in child psychiatry
5. Write about Dissociative disorder with its ayurvedic management
6. Importance of rasayana in mood disorder
7. Detail about psychiatric emergency and its relevance
8. Explain Himasagara taila and brahmi taila
9. Adravya chikitsa and its use in unmada

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner

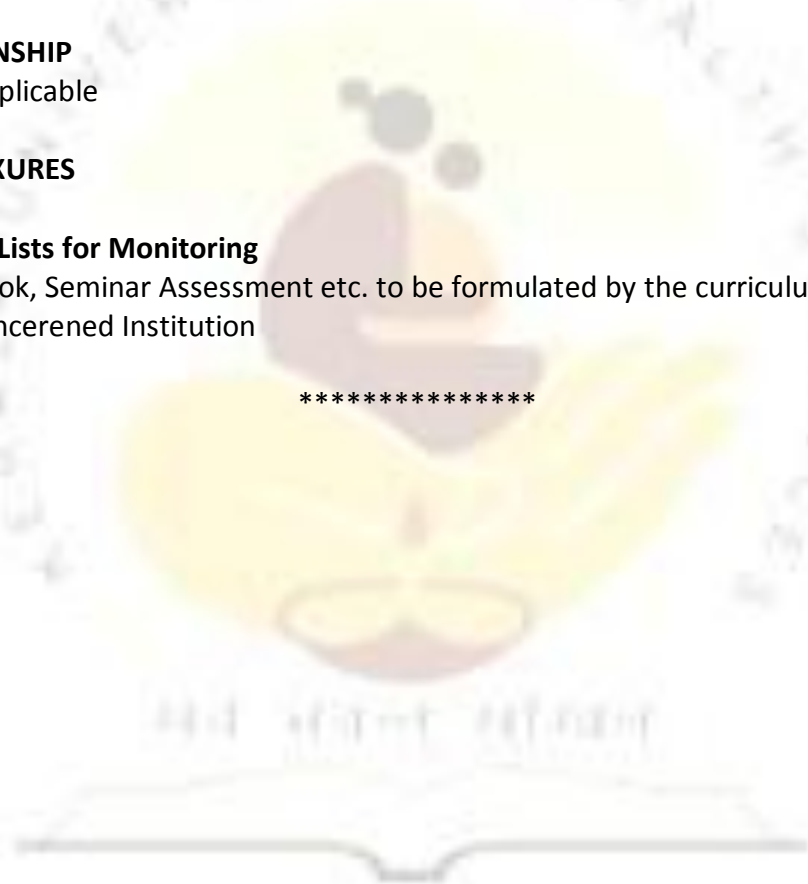
4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution



SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



Diploma in Rasayan and Vajikaran - D. Geriatrics (Ay.)

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Rasayan and Vajikaran - D. Geriatrics (Ay.)

2.2 Objectives:

The aims of D. Geriatrics (Ay.) course shall be to produce efficient Ayurved specialist in clinical specialty Rasayan and Vajikaran, to produce experts for research and development and to produce the skills and competence to diagnose and manage the conditions in respective area of specialisation of Rasayan and Vajikaran.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Rasayan and Vajikaran Siddhanta

Theory – 100 Marks

PART A

1. Fundamentals of Rasayan

- a) Historical evolution and concept of Rasayan (from Vedic to contemporary)
- b) Source material related to Rasayan in various classics
- c) Synonyms, utility, scope, etymology and definition of Rasayan.
- d) Present scenario and future prospect in practice of Rasayan

2. Anatomy and applied physiology in context to Rasayan

- a) Triguna, Mahabhuta, Dosha, Dhatu, Mala, Srotas, Agni, Ojas, Indriya and Mana.
- b) Brief Introduction to Ahara Rasa Nirman, Dhatu Poshanakrama- Kedari Kulya, Kshiradadhi, Khale Kapota Nyaya and their role in Dhatu formation.
- c) Concept of nutrition, preservation & promotion of tissue health. Role of various nutrients like vitamins, proteins, fats, micronutrients and trace elements in preservation and promotion of tissue health.
- d) Metabolism: General and pertaining to ageing
- e) Endocrinology: General, growth related and ageing.
- f) Immunity: Antigen antibody reactions, cell mediated and humoral immunity, immune responses, immune deficiency states, hypersensitivity and autoimmunity.

3. Classification and application of Rasayan alongwith their types and examples

- a) Kutipravesik, Vatatapika, Droni pravesik
- b) Kamyā, Naimittika, Ajasrika, Medhya
- c) Indriyanusari, Dhatvanusari
- d) Lekhan-Brimhanusari
- e) Samshodhan-Samshamananusari
- f) Swasthyānuvartaka Rasayan- Achara Rasayan, Sadvritta, Brahmacharya.
- g) Rasayan adhikaritva-Indications and contraindications.
- h) Optimum time for the use of Rasayan as per age, season, day/night, etc.

- i) Pathyapathya during and after the use of Rasayan
- j) Methods of using Rasayan- Poorva, Pradhana and Pashchat Karma.
- 4. Preservation and Promotion of health by Rasayan
- 5. Prevention of recurrence of Physical and Mental disorders by Rasayan
- 6. Kutipravesik Rasayan
 - a) Concept of Trigarbha Kuti and its descriptions
 - b) Scope and limitation of Kuti Praveshika Rasayan
 - c) Standard Operative Procedures for Kutipravesika Rasayan in general and specific to different Rasayan usage.
 - d) Duration of Kutipravesik Rasayan and rules for termination of Kutipravesha
 - e) Benefits of Kutipravesika Rasayan.

PART B

- 1. Fundamentals of Vajikaran
 - a) Historical evolution and concept of Vajikaran (from Vedic to contemporary era)
 - b) Source material related to Vajikaran in various classics
 - c) Etymology, definition, synonyms, utility and scope of Vajikaran
 - d) Epidemiology of sexual disorders and infertility – Indian and global scenario.
 - e) Present scenario and future prospects in practice of Vajikaran
 - f) Cross cultural perspectives of sexuality and fertility.
- 2. Applied Anatomy and Physiology in context of Vajikaran
 - a) Triguna, Mahabhuta, Dosha, Dhatu, Mala, Srotas, Agni, Oja, Indriya and Mana.
 - b) Srotas with special reference to Sukravaha Srotas and Artavavaha Srotas Shukradhara kala.
 - c) Study of Beeja, Shukra, Veerya, Retasa and Rupadravya
 - d) Dhatuposhan Krama with special reference to Shukra formation
 - e) Reproductive anatomy and physiology- spermatogenesis, oogenesis
 - f) Shuddha Shukra Lakshana, Falavata Shukra Lakshana, Shudha Artava Lakshana.
 - g) Process of fertilization, Factors responsible for Garbhotpatti
- 3. Sexual behavior and response
 - a) Physiology of erection, ejaculation and orgasm
 - b) Hormonal regulation of human sexuality and fertility
 - c) Metabolism: general and pertaining to sexuality and fertility
- 4. Types and Methods of Vajikaran.
 - a) Classification of Vajikaran.
 - b) When and which Vajikaran is to be used.
 - c) Methods of using Vajikaran – Poorva, Pradhan and Pashchatkarma.
 - d) Dietetic, physical and behavioural code for using Vajikaran.
 - e) Contraindications for Vajikaran.

PAPER – II
Jara Samprapti Vigyan (Ageing) and Vajikaran

Theory – 100 Marks

PART A

Jara Samprapti Vigyan (Ageing)

1. Concept of Jara and ageing
 - a) Introduction and definition.
 - b) Epidemiology of ageing and degenerative diseases.
2. Causes of ageing
 - a) Dosh, Dhatu, Agni and Mala in Jara.
 - b) Age of onset of ageing, different Ayurvedic and Modern concepts regarding onset of ageing.
 - c) Factors of ageing process- Swabhav, Jara, Kala.
 - d) Prakriti and ageing
 - e) Environment and allied factors in ageing.
 - f) Town dwelling and Diet articles such as Lavana, Kshara, etc. in ageing.
 - g) Effect of life style in ageing.
 - h) Psychological factors in ageing- Irshya, Bhaya, Krodha, Chinta etc.
3. Samprapti of Jara
4. Roopa of Jara- Srotanusari Rupa of Jara
5. Epidemiology of ageing and degenerative diseases
6. Classification of Jara
 - a) Reversible and Irreversible ageing process.
 - b) Introduction to common geriatric disorders like- Dementia, Alzheimer's disease, Degenerative diseases, Stress induced diseases, Injuries, Urinary retention, GIT problems, BPH, CVA, TIA, PVD, OA.

PART B

Vajikaran

1. Concept of Vajikaran
 - a) Knowledge of different terms used in reference to Vajikaran- Vrishya, Vajikaran, Chatakavat, Hastivat, Ashwavat, Apatyam, Santankaram
 - b) Different types of Shukradushti and their symptoms
 - c) Different types of Artavadushti and their symptoms
2. Panchanidan of diseases related to Shukravaha Srotas
Klaibya, Shandya, Napunsakata, Shukragatavata, Dhvajabhanga, Vyavayashosha, Shighrapatan, Shukrataralya, Shukadosha
3. Sexual dysfunctions
 - a) Libido related disorders-increased libido, decreased libido
 - b) Erectile dysfunctions - Organic, secondary to chronic diseases, functional and iatrogenic
 - c) Ejaculatory disorders – premature, delayed, retrograde, anejaculation

4. Infertility

- a) Male infertility-oligozoospermia, asthenozoospermia, teratozoospermia, obstructive azoospermia, immunological infertility, pyospermia
- b) Female infertility

5. Introduction to sexually transmitted diseases- Phiranga, Upadamsha, Puyameha, Syphilis, Gonorrhea, HIV/AIDS.

PRACTICAL

100 Marks

Distribution of marks (Practical):

- | | |
|---------------|----------|
| 1. Long case | 40 Marks |
| 2. Short case | 20 Marks |
| 3. Spotting | 20 Marks |
| 4. Viva-voce | 20 Marks |

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Rasayan and Vajikaran Pariksha Vigyan

Theory – 100 Marks

PART A

Rasayan Pariksha Vigyan

1. History taking and Clinical examination

- a) Rog and Rogi Pariksha, Trividha, Chaturvidha, Shadvidha, Ashtavidha, Dashavidha and Dwadashvidha.
- b) Neurological, ENT and Ophthalmological examination.

2. Lab Investigations

- a) Routine Investigations - Hb, TLC, DLC, ESR, Biochemistry (Blood Sugar, Blood Urea, Creatinine, Uric acid, Lipid profile) etc.
- b) Hormonal Assay - Thyroid, biomarker related to ageing.
- c) Immunoglobulin studies
- d) Enzyme studies
- e) Radiological and sonological investigations
- f) Specific investigations for ageing.

3. Importance of Samshodhana in Rasayan

Role of importance of Shodhana Karma in Rasayan, knowledge of different procedures useful in Rasayan

4. Psychosocial Assessment

- a) Personality assessment and development in relation with Rasayan.
- b) Different Scales for assessment of IQ, Memory, EQ
- c) Anxiety and depression scale
- d) MME Scale
- e) Quality of life parameters
- f) Positive psychology assessment
- g) Counselling techniques

PART B

Vajikaran Pariksha Vigyan

1. History taking and examination

- a) History- general and sexual
- b) Physical examination
- c) General examination
- d) Neurological and vascular
- e) Specific Examination - sexual examination- local examination of testes, penis, vas deferens, spermatic cord
- f) Nocturnal penile tumescence (NPT) Examination

2. Investigations

- a) Routine Investigations - Hb, TLC, DLC, ESR, Biochemistry (Blood Sugar, Blood Urea, Creatinine, Uric acid, Lipid profile) etc.
- b) Hormonal Assay - Thyroid, Testosterone, FSH, LH, Prolactin, etc.
- c) Immunoglobulin studies
- d) Enzyme studies
- e) Genetic mapping, Chromosomal analysis
- f) HIV, VDRL, HBSAg, etc.
- g) Semen analysis (Semenogram)
- h) Radiological and Sonological Investigations - Scrotal doppler, penile doppler, scrotal USG

3. Importance of Samshodhana in Vajikaran and knowledge of individual Karma useful in Vajikaran

4. Myths and Misconcepts about Sex and Vajikaran

- a) Classification of males and females as per Kamashastra
- b) Knowledge of different organs of sensuality and achieving orgasm.

5. Sex Education

- a) Counselling techniques
- b) Marriage sex counselling
- c) Concepts of safer sex- Knowledge of pharmacology of male and female contraceptives.
- d) Reproduction, contraception etc.
- e) Decision making about pregnancy and parenthood
- f) Ayurvedic and Modern concept of genetic defects leading to malformation of Secondary sexual factors.

6. Ethics and legal aspects of sex and reproduction.

PAPER – II

Rasayan and Vajikaran Aushadhi Vigyan

Theory – 100 Marks

PART A

Rasayan Aushadhi Vigyan

1. Brief Introduction to Rasayan Drugs - Jivaniya, Brihaniya, Balya, Shramahar and Vayasthapana.
2. Pharmacology and Pharmacodynamics of Ayurvedic Rasayan Drugs.
3. Classification of Rasayan Drugs –
 - a) Vyadhyutapadaniya Pratibandhak Rasayan drugs
 - b) Vyadhibala Virodhaka Rasayan drugs
 - c) Medhya Rasayan drugs
 - d) Vatatapika Rasayan drugs
 - e) Naimittik Rasayan drugs for specific diseases
 - f) Svarna Prashana Rasayan
 - g) Knowledge of single herbal drugs used as Rasayan
 - h) Knowledge of Herbomineral-metalic and acqua marine compounds used as Rasayan
 - i) Knowledge of Compound formulation mentioned in Ayurveda
 - j) Knowledge of Drugs – Used in Kutipravesika and Vatatapika Rasayan.
 - k) Adravya Rasayan- Application and importance of Achara Rasayan in today's scenario.
4. Mode of action of Rasayan
5. Methodology of deciding the drug, dose, dosage form, anupana, pathya, apathy for Rasayan Karma.
6. Management –
 - a) Management of Jara and Akaal Jara
 - b) Management of immune deficiency disorders
 - c) Management of metabolic and endocrine disorders
 - d) Management of life style disorders
 - e) Management of degenerative disorders.
 - f) Management of pollution and toxicity related disorders
 - g) Symptomatic treatment of Kaal Jara
 - h) Procedures contraindicated in Jara
 - i) Rasayan useful in different branches of Ayurveda
 - j) Rasayan drugs used in contemporary and other allied medical sciences e.g. Chinese – Ginseng, Ginko Biloba
7. Prevention or delaying of Jara - According to the stages

8. Modern perspectives of Rasayan- Immunomodulator, anti oxidants, tissue supplements, neutropics, disease modifying anti arthritics drugs, prebiotics, probiotics, Nano-Bio technological products etc.
9. Recent advances in Rasayan
10. Research methodologies in Rasayan

PART B

Vajikaran Aushadhi Vigyan

1. Classification of Vajikaran Drugs –

- a) Vajikar, Vrishya, Chatakvat, Hastivat, Punsatvakar, Apatya Santankar, Shukra Janak, Shukra Pravartak, Shukrasrutikar, Shukravridhdhikar, Shukrasrutivridhdhikar, Shukrastambhaka, Shukrarechak and Shukrashosaka.
- b) Single herbal drugs used in Vajikaran and their efficacy.
- c) Herbomineral-metallic and acqua marine compounds used in Vajikaran and their efficacy.
- d) Compound formulations mentioned in Ayurveda as Vajikar.
- e) Detailed Study of Vajikaran Yoga -
 - i. Drugs used in Male infertility
 - ii. Drugs used in Female infertility

2. Management

- a) Management of sexual dysfunctions with Vajikaran Dravya.
- b) Invasive and noninvasive procedures in Vajikaran
- c) Uttarbasti- Its indication and contraindication, method, drugs used, precaution and complication.
- d) Application of Panchkarma in infertility management
- e) Surgical procedures and implants in Vajikaran
- f) Management of male and female infertility
- g) Assisted reproductive techniques (IVF, IUI, ICSI, GIFT, ZIFT, etc).
- h) Use of Vajikaran drugs in different branches of Ashtanga Ayurveda.
- i) Vajikaran drugs used in contemporary and other allied medical sciences. e.g. Chinese Ginseng, etc.

3. Modern perspectives of Vajikaran.

4. Pumsavan karma - Gender selection, legal aspects of sex and reproduction.

5. Recent Advances and Research Methodologies in Vajikaran.

PRACTICAL

100 Marks

Contents of Practical

1. Knowledge and practical aspects of Rasayan and Vajikaran.
2. Knowledge of Panchkarma procedures relevant to Rasayan and Vajikaran like Snehan Swedana, Vamana, Vircehana, Basti, Nasya and Samsarjan Krama.
3. Knowledge and interpretation of various Laboratory investigations relevant to Rasayan Vajikaran like Haemoglobin, TLC, DLC, ESR complete blood chemistry, LFT, Lipid profile, Urine examination, Semen examination, Hormonal assays etc.

4. Knowledge of current trends in Geriatrics and Sexology relevant to Rasayana and Vajikaran.

Pattern of Practical Examination

1. Interpretation of Lab investigations	10 Marks
2. Knowledge of Panchkarma procedures in Rasayan and Vajikaran	10 Marks
3. Case record of Rasayan	10 Marks
4. Case record of Vajikaran	10 Marks
5. Project Work	20 Marks
6. Viva-voce	40 Marks
Total	100 Marks

Text Books for Reference

1. Vajikaran Tantra : Dr. J.L.N. Shastri & Dr. K. Nishteshwar
2. Aphrodisiacs and treatment of Impotence in Alternative system of medicine : Dr. P.V.V. Prasad, Mohd. Siddique and Dr. Abdul Wadood
3. Rajit Roga Shastra (Part I & Part II) : Dr. Shiv Kumar Shastri
4. Santati Nigraha : Dr. Shivdayal Gupta
5. Kamashastra antargat Vajikaran Vigyan : Prof. Jyotirmitra
6. Ayurvediya Rasayan Sar : Dr. Shailaja Shrivastava
7. Rasayan Sar (Part I & Part II) : Dr. Shyam Sunder Acharya
8. Rasayan Khand : Dr. Indra Dev Tripathi
9. Rasayan Tantra : Dr. Pakshdhar Jha
10. Ayurved Chikitsa Vigyan : Prof. Banwari Lal Gaur

Additional Books for Reference

1. Rasayana and Vajikarana – Rejuvenation and Virile Therapy – Dr. Giri. P. V

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086

18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321-6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601,
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamya@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in/Open Access Peer Reviewed E-Journal*. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.

2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.

3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.

4. Minimum passing marks shall be 50% in theory and practical separately.

5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.

b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.

e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.

f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.

g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.

h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.

2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.

3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.

4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Rasayan and Vajikaran - (D. Geriatrics (Ay.))
(..... scheme)**

Paper I - Rasayan and Vajikaran Siddhanta

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Discuss the concept of Rasayana with respect to its evolution, current practice and future perspectives.

Short Essays

(8 x 10)

2. Applicability of concept of Ojus in the practice of Rasayana.
3. Role of micro-nutrients in promotion of tissue health.
4. Role of Rasayana in immune deficiency disorders.
5. Physiology of Ejaculation.
6. Formation of sukradhathu according to Kedarakulya and Khalekapotanyaya.
7. Role of Vajeeekarana therapy in influencing factors responsible for Garphothpathi.
8. Evidence of Vajeeekarana drugs in hormonal regulation of human sexuality and fertility.
9. Contraindications for Vajeeekarana therapy.

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Rasayan and Vajikaran - (D. Geriatrics (Ay.))
(..... scheme)**

Paper II – Jara Samprapti Vigyan (Ageing) and Vajikaran

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain different types of Shukradushti and Artavadushti with symptomatology.

Short Essays

(8x10=80)

2. Epidemiology of Ageing and degenerative diseases.
3. Aetiology of Alzheimer's disease and Ayurvedic diagnostic approach.
4. Reversible and Irreversible ageing process.
5. Role of lifestyle in ageing process.
6. Role of Environment and allied factors in ageing.
7. Female infertility.
8. Erectile dysfunction – Classification and Ayurvedic Samprapti.
9. Aetiopathogenesis of Phiranga.

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Rasayan and Vajikaran - (D. Geriatrics (Ay.))
(..... scheme)**

Paper I - Rasayan and Vajikaran Pariksha Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain the role of Dasavidhapareeksha with respect to Rasayana therapy.

Short Essays

(8x10 = 80)

2. Positive psychology Assessment.
3. Role of Enzyme studies in JaraVijnana.
4. Scales for assessment of memory.
5. Tools for Semen Analysis.
6. Local examination techniques of testes and spermatic cord.
7. Legal aspects regarding Sex and reproduction.
8. Importance of Sodhana prior to Vajeeekarana therapy.
9. Points to differentiate Neurological and Vascular cause of impotency.

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Rasayan and Vajikaran - (D. Geriatrics (Ay.))
(..... scheme)**

Paper II - Rasayan and Vajikaran Aushadhi Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Discuss in detail about the Pharmacology and Pharmacodynamics of Ayurveda Rasayana drugs with Suitable examples.

Short Essays

(8x10 = 80)

2. Rasayana therapy in the management of metabolic and endocrine disorders.
3. Criteria for advising Pathya and Apathya in different rasayanaprayogas.
4. Mode of action of medhyarasayana with relevant scientific updates.
5. Use of Aqua-marine compounds as Vajeeekarana drugs.
6. Utharabasthi – Uses and contraindications.
7. Invasive and noninvasive procedures in Vajikarana.
8. Assisted Reproductive technique - IVF.
9. Pharmaceutics of any two herbs in male infertility with recent research updates.

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

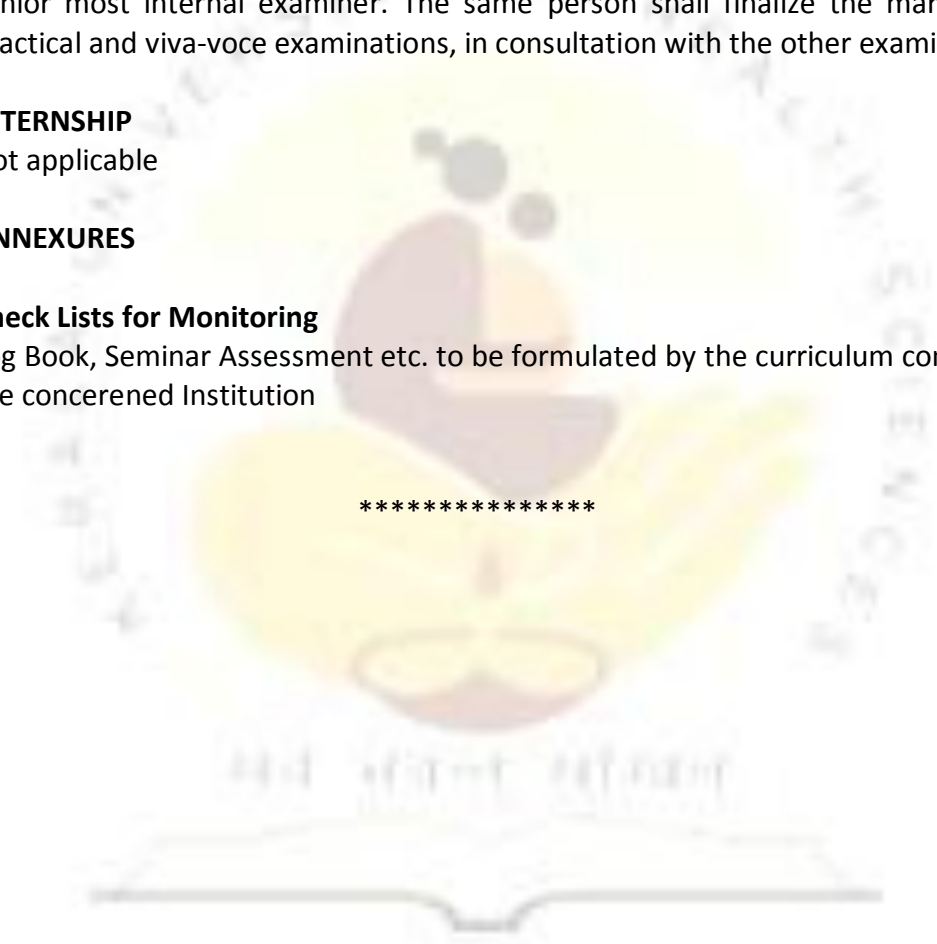
4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution



SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Prasuti & Striroga –
D.G.O. (Ay.)
(Diploma in Obstetrics and Gynecology (Ay.))**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Prasuti & Striroga – D.G.O. (Ay.) (Diploma in Obstetrics and Gynecology (Ay.))

2.2 Objectives:

The aims of D.G.O. (Ay.) (Diploma in Obstetrics and Gynecology (Ay.)) course shall be to produce efficient Ayurved specialist in clinical specialty Prasuti & Striroga, to produce experts for research and development and to produce the skills and competence to diagnose and manage the conditions in respective area of specialisation of Prasuti & Striroga.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Prasuti Tantra - Garbha Garbhini Prasava Vigyan

Theory – 100 Marks

PART A

1. Importance of Ayurvediya Prasuti Tantra evam Stri Roga in women health care
2. Epochs of woman's life
3. Stri vishishta sharir rachana (applied anatomy of female reproductive system, pelvis and pelvic floor)
4. Garbha Vigyan
 - a) Garbha paribhasha, Garbhadaana samskara (prenatal counselling), Garbhavakranti, Garbha Sambhava Samagri, Garbhasya Shadghatak, Garbhasya Panchabhautikata.
 - b) Garbhasya Masanumasika Vriddhi, Garbhasya Avayavotpatti, Garbhasya Poshana (Physiology of conception, implantation and embryology)
 - c) Jarayu, Apra, Nabhinata evam Garbhodak Nirmaan evam Karya (Formation and functioning of Placenta, Umbilical cord and Amniotic fluid)
5. Garbhini Vigyan
 - a) Sadyograhita Garbha Lakshan, Vyakta Garbha Lakshan, Pumsavan Vidhi, Garbhini Masanumasika Lakshan (Signs, symptoms, diagnosis and differential diagnosis of pregnancy)
 - b) Garbhini Paricharya, Anatomical and Physiological changes during pregnancy, nutrition during pregnancy.

PART B

1. Prasava Kaal, Sutikagaar, Prasava Paribhasha, Prasava Hetu, Prasava Kalaen Garbhashayantar Garbha Sthiti, Prasavasya Vividha Awastha, Aavi, Prasava Paricharya.

2. Intrapartum maternal and foetal monitoring, Partogram, CTG.
3. Prasav Purva Raktasrav (Ante partum haemorrhage)
4. Kritrim Prasav Arambh (Augmentation of Labour)
5. Sutika Vigyan, Sutikaki Paribhasha, Sutika Kaal, Sutika Paricharya, Sutika Kaleen Sarvadaihi Parivartan
6. Stana, Stanya Sampat evam Stanya Dushti
7. Jatmatra Shishu Paricharya, Navjaat Shishu Paricharya.
8. Knowledge regarding writing research papers.

PAPER – II

Stri Roga Vigyan

Theory – 100 Marks

PART A

1. Description of Raja, Artava and concept of Shukra in Stri Prathama Rajo Darshan (Menarche), Rituchakra (Menstrual cycle).
2. Ashta Artav Dushti, Shukra Dushti, Rajah Kshaya, Anartava including scanty menstruation and Amenorrhoea.
3. Asrigdar including abnormal uterine bleeding.
4. Rajo Nivritti (Menopause).

PART B

1. Striroga vishishta sthanik chikitsa—Uttar Basti, Pichu, Yonidhavan, Dhoopan, etc.
2. Prasuti Tantra evam Stri Rogopayogi Aushadhasya Matra, Ghatak evam Upadeyata, (Pharmacology of selected Modern medicine used in Obstetrics and Gynaecology).
3. Stri evam Matru Kalyan Karyakram (National Programme related to Women Health Care), Parivar Niyojan evam Santati Nirodhasya Upaya evam Shalya Vidhi (Medical and Surgical methods of Female Contraception and Sterilisation)
4. Yogasya prasuti evam Stri Roga chikitsakeeya upayogita.
5. Chikitsiya upyogita of Rasayan in Prasuti evam Stri Roga.
6. Prasuti evam Stri Rogaya naidanikiya parikshana (Diagnostics in Obstetrics and Gynaecology)
7. Shock and its management, Raktadana, Fluid and Electrolyte imbalance, Fluid therapy.

PRACTICAL

100 Marks

Distribution of marks (Practical):

- | | |
|---|------------|
| 1. Case Records of Patients in detail (25 cases) | -20 Marks |
| 2. Bed Side Clinical Case Taking | |
| Long Case | -20 Marks |
| Short Case | -10 Marks |
| 3. Procedres | -15 Marks |
| 4. Identification of Instruments, X ray, etc and Spotting | -15 Marks |
| 5. Viva- Voce | - 20 Marks |

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100

PAPER – I

Garbha Garbhini Evam Prasav Vyapad

Theory – 100 Marks

PART A

1. Garbhavyapad - Garbhasraav, Garbhapaat (Abortion), Garbhashosh, Upvishtak, Upashushka (IUGR), Leen Garbha, Mrit Garbha (IUD), Jarayu dosh (Abnormalities of Amniotic fluid, Placenta and Umbilical cord), Rakta Gulma Bahuapatyata (Multiple Pregnancy), Ectopic Pregnancy, Molar Pregnancy, Rh incompatibility.
2. Garbhanga Vikriti - Clinical aspects of genetics and teratology. Prenatal diagnosis of foetal abnormalities and its management.
3. Garbhini Vyapad - Kikkis, Makkal, Hrillas, Emesis and Hyperemesis gravidarum, Jwar, Pandu, Kamala, Garbha janya Vishmayata (Toxaemia in pregnancy), Infections during pregnancy, Hridroga, Prameha (Diabetes) etc.
4. High Risk Pregnancy, management of pregnancies complicated by medical, surgical or Gynaecological diseases.

PART B

1. Kashta Prasav, Garbhasang, Vilambit Prasav, Distocia with its management, Garbha evam Matru Shroni Asamanjasya (CPD).
2. Malpresentations and their management
3. Aparasanga (Retention of Placenta and its management)
4. Prasavottar Raktasraav (PPH) and its management.
5. Complications during Labour and their management
6. Purva Kalik evam Kalateet Prasav (Preterm and post term labour)
7. Mudh Garbha (Obstructed Labour)

8. Sutika roga - Number, causes, clinical features, prognosis and treatment of Sutika Jwara, Shotha, Makkala and other complications.

PAPER – II

Stri Roga Chikitsa

Theory – 100 Marks

PART A

1. Detailed study of Yoni Vyapad mentioned by different Acharya and their possible modern correlations
2. Yoni-Kand, Yoni-Arsha, Yoni-Arbud (Benign and malignant cysts and tumors of female genital organ) and PCOS
3. Stri Vandhyatva (Female infertility) and its management with Ayurvedic and Modern techniques.
4. Sexually transmitted disease AIDS, etc.
5. Stan Roga evam Chikitsa –Stan Vidradhi (Mastitis and Breast abscess).

PART B

Shastra Karma

1. General principles of Gynaecological and Obstetric surgeries, analgesics and anesthesia in Gynaecology and Obstetrics, Nirjantukikaran (sterilisation), suturing materials and methods.
2. Muladhar Chhedan, Yantra Shastrena Garbhasya Aaharan, Udarpatan poorvak Garbha Nirharana.
3. Garbhashayamukh vistritikaran evam garbhashaya lekhan, Garbhashaya mukha samvritikaran, Garbhashayamukh dahan, Pap smear, Cervical biopsy, Swasthane garbhashaya sthapan, Yoni-arsh nirharan, Gulma Nirharan, Vidradhi Patan and Vrana Chikitsa.
4. Garbhashaya nirharana
5. Provision of safe abortion services.
6. Medico legal aspects in Prasuti Tantra including PNDT and MTP Act.
7. Record keeping of Gynaecological and Obstetrics cases.
8. Conditions and norms of referral cases in Gynaecology and Obstetrics.

PRACTICAL

100 Marks

Contents of Practical

A. Kriyatmaka

- | | |
|------------------------------------|-----------|
| 1. O.P.D and IPD duties | 06 months |
| 2. Labour Room duties | 06 months |
| 3. Ultrasound Unit | 01 months |
| 4. Casualty related to the subject | 15 Days |

B. Case records – Total 20 cases

1. Prasuti Tantra (Obstetrics)	10 cases
2. Stri Roga (Gynaecology)	10 cases

Pattern of Practical Examination

1. Case Record	10 Marks
2. Case Study	
a) Long Cases	20 Marks
b) Short Cases	10 Marks
3. Identification of Instrument	10 Marks
4. Project Work	20 Marks
5. Viva - voce	30 Marks
Total	100 Marks

Text Books for Reference

1. Abhinava Prasuti Tantra	: Vaidya Damodar Sharma Gaur
2. Prasuti Vigyana	: Dr. Acharya Ramanath Dwivedi
3. Prasuti Vigyana	: Dr. Mrinmayi Mukherjee
4. Prasuti Vigyana	: Dr. Alakh Narayan Singh
5. Prasuti Vigyana	: Dr. Manjari Dwivedi
6. Prasuti Vigyana	: Vaidya Nirmala Tai Rajwade
7. Prasuti Tantra and Stri Roga	: Dr. Premvati Tiwari
8. Abhinava Prasuti Vigyana	: Dr. Ayodhya Prasad Achal
9. Striroga Vigyana	: Vaidya Ramanath Dwivedi
10. Abhinava Striroga Vigyana	: Dr. Rajendra Bhatnagar
11. Abhinava Striroga Vigyana	: Dr. Ayodhya Prasad Achal
12. Stri Roga Chikitsa	: Dr. J.S. Chauhan
13. Janasankhya Siddhanta aur Upadeyata	: Dr. Nirmal Sahani
14. Theory of Population in Outline	: Dr. D.I. Vallentev
15. Text Book of Gynaecology	: Dr. C.S. Dawn
16. Text Book of Obstetrics	: Dr. C.S. Dawn
18. Shaw's Textbook of Gynaecology	: Shaw
19. Shaw's Textbook of Obstetrics	: Shaw
20. Text Book of Obstetrics	: Dr. Dutta
21. Textbook of Gynaecology	: Dr. Dutta
22. Notes on Obstetrics	: Dr. Sachedeva
23. Ayurvedic Concepts in Gynaecology	: Vaidya Nirmala Joshi
24. Useful parts of Charak, Sushrut, and Vagbhata and Sharangdhara.	

Additional Books for Reference

1. Textbook of Siroroga	Publication Division, Govt. Ayurveda College, Trivandrum
-------------------------	---

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)
Given under Clause No. 2.10

2.13 Records
Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide
Not Applicable

2.15 Speciality training if any
Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]
Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject
Given under clause No. 2.10

2.19 Reference books
Given under clause No. 2.10

2.20 Journals
Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435

6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601,
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173

10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in*/Open Access Peer Reviewed E-Journal. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.
2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.
3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.
4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Prasuti & Striroga – (Diploma in Obstetrics and Gynecology (Ay.))
(..... scheme)**

Paper I - Prasuti Tantra - Garbha Garbhini Prasava Vigyan

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Explain Pelvis and Pelvic floor.

Short Essays

(8 x 10)

2. Discuss Garbhaposhana.
3. Write a note on the formation and functioning of Placenta and Amniotic fluid.
4. Briefly discuss the Diagnosis of pregnancy.
5. Explain GarbhiniParicharya.
6. Discuss in detail Intrapartum maternal and foetal monitoring.
7. Write a note on Suthikaparicharya.
8. Explain StanyaSampatevamStanyaDushti.
9. Explain Prasavaparicharya.

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Prasuti & Striroga – (Diploma in Obstetrics and Gynecology (Ay.))
(..... scheme)**

Paper II – Stri Roga Vigyan

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain Rituchakra (Menstrual cycle).

Short Essays

(8x10=80)

2. Explain AshtaShukraDushti.
3. Write a short note on abnormal uterine bleeding.
4. Discuss RajoNivritti (Menopause).
5. Explain Rajah Kshaya.
6. Explain VishishtaSthanikChikitsa in Streeroga.
7. Briefly write a note on medical methods of female contraception.
8. Write the ingredients and indications of Phalasarpis.
9. Explain the role of Laparoscopy in Obstetrics and Gynaecology

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Prasuti & Striroga – (Diploma in Obstetrics and Gynecology (Ay.))
(..... scheme)**

Paper I - Garbha Garbhini Evam Prasav Vyapad

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Define *Mudha garbha*(obstructed labour)and mention its *nidana*, *samprapthi*,*lakshana* and Management

Short Essays

(8x10 = 80)

2. Discuss the conditions of intra uterine growth retardation with possible *Ayurvedic* correlations and management.
3. Explain prenatal detection methods of fetal abnormalities
4. Discuss the causes and management of emesis and hyper emesis gravidarum
5. *Garbhakala madhumeha roga* (gestational diabetes) explain its effects in mother and fetus, screening test and management.
6. Explain ectopic pregnancy.
7. Explain *prasavothara raktha srava* (post partum hemorrhage)and its management.
8. What are the causes of *apara sanga* and write its management.
9. Explain *soothika jwara* and its management.

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Prasuti & Striroga – (Diploma in Obstetrics and Gynecology (Ay.))
(..... scheme)**

Paper II - Stri Roga Chikitsa

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Discuss the cause of female infertility and its management with modern and *Ayurvedic* techniques.

Short Essays

(8x10 = 80)

2. Discuss the cause symptoms and management of vaginal vault prolapsed with possible *Ayurvedic* correlations.
3. Explain *sthana vidhradhi* (mastitis and breast abscess) and its management.
4. Poly cystic ovarian disease, discuss the management protocol in various clinical conditions.
5. Explain laparoscopic sterilization method.
6. Briefly explain the episiotomy procedure and discuss its merits and demerits.
7. Discuss the importance of analgesics and anesthesia in obstetrics.
8. Explain the conditions and norms of referral cases in gynecology and obstetrics.
9. Discuss the medico legal aspects of PNDT Act.

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution

SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Netra Roga Vigyan –
D.O. (Ay.) (Diploma in Ophthalmology (Ay.))**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Netra Roga Vigyan - D.O. (Ay.) (Diploma in Ophthalmology (Ay.))

2.2 Objectives:

The aims of D.O. (Ay.) (Diploma in Ophthalmology (Ay.)) course shall be to produce efficient Ayurved specialist in clinical specialty Netra Roga Vigyan, to produce experts for research and development and to produce the skills and competence to diagnose and manage the conditions in respective area of specialisation of Netra Roga Vigyan.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

Theory (Two Papers) – Maximum Marks - 100 Each

Practical (One) - Maximum Marks - 100

PAPER – I

Netra Chikitsa Vigyan – Maulika Siddhanta and Samanya Parichaya (Basic principles and General considerations in Ayurvedic Ophthalmology), Anusandhana evam anya Vishishta Vigyan (Research Methodology, Medical Statistics and Ethical Considerations)

Theory – 100 Marks

PART A

1. Etymological aspects- Shalakya Tantra Nirukti, Parichaya and scope.
2. Historical considerations in Shalakya Tantra (Itihasa, vikasa and contribution from ancient to modern era)
3. Importance of Shalakya Tantra (Shalakya Tantrasya Ayurveda Pradhanyam)
4. Importance of Head (Shiropadhanta) and organ of Vision (Sarvaendriyanam Nayanam Pradhanam)
5. Important texts of Shalakya and contributors (Ancient ,medieval and modern period)
6. Netra Vyutpatti, Paryaya, Parichaya and Netra Panchabhautikata.
7. Netra Sharir Rachana and Embryological, anatomical considerations in Ophthalmology- basic and applied aspects

PART B

1. Netra Sharira Kriya, Chakshurendriya Kriya and Physiological considerations in Ophthalmology- Basic and applied aspects
2. Shirotata Marma Vichara (Anatomical and clinical aspects of vital points of head and neck).
3. General methodologies of Research and Evaluation in Ayurveda and traditional medicine (drug development comprising of standardisation, quality control of drugs, pre clinical safety and toxicity and clinical evaluation, etc.)
4. Guidelines on Good Clinical Practices (GCP) and Good Laboratory practices (GLP)

5. Ethical considerations in clinical and biomedical research and practice alongwith medico legal aspect in Netra Chikitsa.
6. Current trends and Contemporary developments in Ophthalmology.

PAPER – II

Netra roga Nidan evam Chikitsa Samanya Parichaya (General Principles of Clinical Diagnosis and Management in Ophthalmology)

Theory – 100 Marks

PART A

1. General examination of eye.
2. Subjective and objective examination and clinical methods in Ophthalmology.
3. Latest instruments, diagnostic tools, technology and its utility in diagnosis and evaluation.
4. Other advanced diagnostic techniques and imaging technology.
5. General aetiological considerations (Netra Roga Samanya Nidan).
6. Pathological considerations in Ophthalmology (Hetu, Samprapti).
7. General principles of management (Chikitsa Sutra)

PART B

1. Preventive Ophthalmology (Preventive or Netrasanrakshanopaya)
2. Pathyapathya in Netra roga (Diet and practices in eye diseases)
3. Introduction to Ophthalmic surgical instruments and equipments (Netra sambandhi Yantra, Shastra Parichaya) and asepsis and sterilization methods - Ayurvedic and modern aspects
4. Classification of Eye diseases (Netra Roga Bheda) and its significance.
5. Community Ophthalmology.
6. Essential modern drugs and anaesthetic agents of diagnostic and surgical importance.

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Long case	30 Marks
2. Short case	20 Marks
3. Record	10 Marks
4. Procedure	10 Marks
5. Instruments and Drug spotting	10 Marks
6. Viva-voce	20 Marks
Total	100 Marks

Second Year

**Theory (Two Papers) – Maximum Marks - 100 Each
Practical (One) - Maximum Marks - 100**

PAPER – I

**Clinical Ophthalmology (Sandhi, Vartma, Shukla, Krishna, Drishti, Sarvagata, Mandalagata
Roga Vishesha Nidan evam Chikitsa)**

Theory – 100 Marks

PART A

Sandhigata Roga, Vartmagata Roga, Shuklagata Roga

1. Introduction, aetiopathogenesis, clinical features and treatment.
2. Understanding and interpretations of diseases with a comparative study of contemporary knowledge of modern Ophthalmology.
3. Congenital, developmental, neoplastic and degenerative disorders, other ocular problems and their management.

PART B

Krishnagata Roga, Drishtigata Roga and Sarvagata Roga

1. Introduction, aetiopathogenesis, clinical features and treatment.
2. Malnutritional ocular disorders.
3. Understanding and interpretations of diseases with a comparative study of contemporary knowledge of modern Ophthalmology and its management.
4. Eye donation, Eye Bank and Keratoplasty.
5. Basics of refraction and refractive errors.
6. Orthoptics and Neuro Ophthalmology.
7. National Programme for Control of Blindness.
8. Geriatric Ophthalmology (Jaravastha Janya Netra Vikar)
9. Ocular manifestation of systemic diseases
10. Ocular trauma and emergencies in Ophthalmology (Netra Abhighata and Atyayika chikitsa)
11. Congenital, developmental, neoplastic and degenerative disorders of Krishna, Drishti gata roga and other ocular problems.

PAPER – II

Netra Kriya Kalpa, Netra Chikitsa Sambandhi Dravyaguna Evam Bhaishajya Kalpana Gyanam. Shastra, Anushastra and Other Vishishta Chikitsa Prayoga Gyanam

Theory – 100 Marks

PART A

Kriya Kalpa

1. Introduction, development of topical Ophthalmic therapeutic procedures (Netra rogeshu kriyakalpadi vishishtopakramascha parigyanam, vikas-krama cha)
2. Rational use and relevance of selection of Kriya Kalpas in the management of ocular diseases(based on inflammatory status of eye ,seat of origin of disease etc.)
3. Netra Kriya Kalpa procedures, Seka, Ashchyotana, Pindi, Bidalaka, Tarpana, Putapaka, and Anjana and their practical aspects.
4. General introduction, types, indications, contraindications, dose, Kaal, Purva Karma, Pashchat Karma, Pradhan Karma, Complication, their management, drugs used for Seka, Ashchyotana, Pindi,Bidalaka, Tarpana, Putapaka and Anjana.
5. Standard operative procedure in respect of application of Kriya Kalpa as well as preparation of the dosages used in the procedures.
6. Critical interpretation of Kriya Kalpa procedure based on the fundamentals of modern pharmacology viz. routes of administration, compliance, disposal , absorption, drug vehicles and bioavailability, duration and quantum of bioavailability and physical measures, Pharmaceutical dosage forms, etc.
7. Important Ayurvedic drugs/ formulations used in Ophthalmology (Netraroga chikitsa upayogi vishishtayoganam parigyanam).

PART B

Lekhana, Chedhanadi Ashtavidh Shashtra Karma

1. Basic principles of Ophthalmic surgery (Shastra sadhya vyadhi parichaya)
2. Rational use and relevance of selection of surgical procedures in the management of ocular diseases
3. Modern ocular surgical techniques of the surgical diseases related to eye and its appendages.
4. General introduction, Poorva, Pradhan & Paschat karma, complications with management of Lekhana, Chedhana, Bhedhana, Vedhana, Eshana, Aaharana, Visravana and Seevana procedures with special Netra Roga Chikitsa.
5. Standard Operative Procedures to be adopted in above mentioned surgical procedures.

Raktamokshan (Therapeutic bloodletting)

1. Shuddha Raktalakshana, Dustarakta Lakshana
2. General introduction to Raktamokshan (Therapeutic blood letting), Jalaukavacharana (different types of Jalauka, collection and identification of Jalauka, Purva, Pradhan and Paschat Karma of Jalauka)

3. Procedure of Prachhanna (bloodletting by incision), Sira Vedha (bloodletting by venepuncture)
4. Complications and their management
5. Standard Operative Procedures

Agnikarma & Kshara Karma

1. Agnikarma and Kshara Karma applications in Netra Chikitsa and Utility of Lasers in Ophthalmology
2. Research and development (R&D) update on Ophthalmic drugs and surgical procedures

PRACTICAL

100 Marks

Contents of Practical

1. Application of Shadviddha parikshoupakrama in clinical Ophthalmology.
2. Clinical application of Asthaviddha shastrakarma and Ksharadi anushastra karma in Ophthalmic practice.
3. Retinoscopy followed by refractive corrections.
4. Diagnostic procedures
 - a) Anterior Segment – Gonioscopy, A scanning, B scanning, Pachymetry
 - b) Posterior Segment – Knowledge of Indirect Ophthalmoscopy and other aids for posterior segment examination
5. Therapeutic procedures
 - a) Observation, assistance and performance of parasurgical and kriyakalpa procedures.
 - b) Practical hands on modern Ophthalmic surgical procedures.
6. The candidate should fulfill the participation of compulsory regular In House Clinical postings at attached hospital of teaching institute, Postings at Exclusive Eye Hospitals, centres of excellence and other national and regional institutes of Ophthalmology supported by submission of Case Documentation throughout the two academic years.

Pattern of Practical Examination

1. Short case	10 Marks
2. Long Case	20 Marks
3 Procedures (Practical demonstration of Kriyakalpa/parasurgical/surgical procedures)	10 Marks
4. Project work	20 Marks
5. Viva-voce	40 Marks
Total	100 Marks

Text Books for Reference

1. Charak Samhita with commentaries
2. Sushrut Samhita with commentaries
3. Ashtanga Hridaya and Ashtanga Samgrahawith commentaries
4. Madhava Nidan with commentaries
5. Bhavaprakasha with commentaries
6. Sarangadhara Samhita with commentaries

7. Sahashrayoga Samgraha
8. Chakradatta
9. Shalakya Tantra : Ramanath Dwivedi Chowkhambha Sanskrit Prathisthan, Delhi
10. Shalakya Tantra : R.C. Chaudhary, Chowkhambha Sanskrit Prathisthan, Delhi
11. The actions and uses of Indigenous Ophthalmic Drugs
: N.Srikanth, Chowkhambha Sanskrit Prathisthan, Delhi
12. Ayurvedic Formulary of India (AFI) and Ayurvedic Pharmacopoeia of India (API),
All Volumes : Dept. of AYUSH, Govt.of India
13. Clinical Examination of Ophthalmic Cases : Agarwal and Gupta, CBS publishers, Delhi
14. Alder's Physiology of the Eye and Clinical Applications : Cotlier, St. Louis.
15. Disease of the Lens and Vitreous, Glaucoma and Hypotony
: Duke-Elder, St. Louis, Mosby.
16. A Text Book of Ophthalmology : Ahmed E. Oxford University Press, Calcutta.
17. A Text book of Clinical Ophthalmology : Dhanda et al.Galgoti Publishers, New Delhi
18. Modern Ophthalmology : Dutta, L.C. Jaypee Brothers, Medical Publishers New Delhi.
19. Manual of the Diseases of the Eye
: May C. and Worth, C. Bailliere Tindal and Castell, London.
20. Ophthalmology – Principles and Concepts : Newell, F.W.C.V. Mosby Co. St. Louis.
21. Occular Differential Diagnosis : Roy Fedrick Hamptn Lea & Febiger
22. Clinical Ophthalmology : Smith, R.Verghese Company, Bombay.
23. Abrahm Manual of Refraction : Duke and Elder
24. Hand Book of Ophthalmology : B.M. Chaterjee
25. Hand Book of Ophthalmology : Khurana
26. Clinical Ophthalmology : Kanski
27. Parsons Diseases of Eye
28. Stallard's Eye Surgery

Additional Books for Reference

1. Text Book of Siroroga - A Conceptual Analysis Publication Division, Govt. Ayurveda
College, Trivandrum
2. A Text Book of Ophthalmology in Ayurveda Dr. P. K. Shantha kumari

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.
5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086

18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321-6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601
27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamya@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda, Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in/Open Access Peer Reviewed E-Journal*. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.

2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.

3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.

4. Minimum passing marks shall be 50% in theory and practical separately.

5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.

b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.

e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.

f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.

g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.

h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.

2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.

3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.

4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Netra Roga Vigyan – (Diploma in Ophthalmology (Ay.))
(..... scheme)**

**Paper I - Netra Chikitsa Vigyan – Maulika Siddhanta and Samanya Parichaya
and Anusandhana evam anya Vishishta Vigyan**

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Describe the anatomy of eye in detail. Compare it with the netra Rachana sareera as explained by Susruta.

Short Essays

(8 x 10)

2. Discuss the medicolegal aspects in Netra chikitsa
3. What are the guidelines applicable for Good clinical practices (GCP) in netra chikitsa
4. What are the different phases in a clinical study
5. Describe in detail Randomised controlled trial
6. Describe the ancient texts of Ayurveda that contributed in the development of Netra chikitsa and discuss their role
7. Explain the importance of shiras and netra
8. Describe the physiology of vision
9. Discuss the current trends in Ophthalmic practices

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Netra Roga Vigyan – (Diploma in Ophthalmology (Ay.))
(..... scheme)**

Paper II – Netra roga Nidan evam Chikitsa Samanya Parichaya

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Critically analyse netra roga nidana and discuss the pathyapathyas of a netra rogi

Short Essays

(8x10=80)

2. Describe the modern drugs used for diagnostic purposes in Ophthalmology
3. How is netra roga classified according to Ayurveda? Describe the significance of this classification
4. Discuss the sterilization methods as mentioned in Ayurveda and modern for ophthalmic procedures.
5. Discuss netrasamrakshanopaya
6. Describe in detail fundus examination
7. Describe the role of topography in corneal diseases and explain the interpretation of topographic reading.
8. Discuss in detail the chikitsa sootra of netra roga.
9. Describe lid examination techniques and common pathologies associated with lid.

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Netra Roga Vigyan – (Diploma in Ophthalmology (Ay.))
(..... scheme)**

**Paper I - Clinical Ophthalmology (Sandhi, Vartma, Shukla, Krishna, Drishti,
Sarvagata, Mandalagata Roga Vishesha Nidan evam Chikitsa)**

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Enumerate Krishnagatha rogas. Describe each disease and discuss its sadhyasadyatha. What are the indications for keratoplasty and steps in keratoplasty.

Short Essays

(8x10 = 80)

2. Describe the management of nayanabhighatha.
3. Describe diplopia, its causes, types and examination techniques.
4. Write short note on ocular manifestations of systemic diseases
5. Write the symptoms and management of kaphaja linganasha
6. Write the symptoms of Kriichronmeela and Shushkakshipaka and compare with dry eye syndrome.
7. What is netranadi? Describe its types and clinical features with modern correlation
8. Write the management of various types of abhishyanda as elaborated by Susrutha
9. Write the clinical features and managent of sashopha akshipaka with modern correlation

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Netra Roga Vigyan – (Diploma in Ophthalmology (Ay.))
(..... scheme)**

**Paper II - Netra Kriya Kalpa, Netra Chikitsa Sambandhi Dravyaguna Evam
Bhaishajya Kalpana Gyanam. Shastra, Anushastra and Other Vishishta
Chikitsa Prayoga Gyanam**

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Describe the role of ashtavidha shastra karma in netra chikitsa. Explain the procedure of lekhana in Vartma roga

Short Essays

(8x10 = 80)

2. Discuss the use of laser treatment in ophthalmology
3. What are the standard operating procedures for Jaloukavacharana.
4. Describe the surgical techniques for the treatment of glaucoma
5. What are kriyakalpas and which are the kriyakalpas that can be administered in ama avastha and why?
6. Critically analyse the role of Tarpana in Drishtigatha rogas
7. Critically interpret kriyakalpas on the fundamentals of modern pharmacology
8. Standard operating procedures to be followed in parasurgical treatment of netra roga
9. Describe the latest trends in cataract surgery

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution

SYLLABUS

**for Courses affiliated to the
Kerala University of Health Sciences
Thrissur 680596**



**Diploma in Kshar Karma –
D. Kshar Karma**

Course Code:

(2019-20 Academic year onwards)

2019

2. COURSE CONTENT

2.1 Title of course and description:

Diploma in Kshar Karma – D. Kshar Karma

2.2 Objectives:

The aims of D. Kshar Karma course shall be to produce efficient Ayurved specialist in clinical specialty Kshar Karma and to produce experts for research and development in the field of specialisation of Kshar Karma.

2.3 Medium of instruction:

The medium of instruction of the course is English

2.4 Course outline

a. The student shall have to undergo a study for a period of two completed years including the examination period.

b. The students shall have to attend at least 80% in theory and practical of total lectures and practicals and seminars to become eligible for appearing in the examination, every year as prescribed by Council.

c. The students shall have to perform all hospital duties and other duties as may be assigned to them during the course of study.

d. The students shall have to attend special lectures, demonstrations, seminars, study tours and such other activities as per curriculum prescribed programme.

e. The students shall participate in all the teaching and training programmes and other activities of the Department.

f. The institution shall conduct at least one Seminar in a week and every student should participate in that Seminar. Every student shall make presentation on identified subject and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.5 Duration

2 years.

2.6 Subjects

Given under curriculum clause no.2.10

The concept of health care counseling shall be incorporated in all relevant areas.

2.7 Total number of hours

Given under curriculum Clause No 2.10

2.8 Branches if any with definition

Not applicable

2.9 Teaching learning methods

Lecture classes, completion works, seminars, paper presentations, group discussions, assignments, clinical / lab training etc.

2.10 Content of each subject in each year

(The changes proposed by the Apex Council of Ayurveda shall be incorporated in this syllabus as and when the same is notified by the Apex Council)

First Year

Theory (Two Papers) – Maximum Marks - 100 Each

Practical (One) - Maximum Marks - 100

PAPER – I

Basic principles

Theory – 100 Marks

PART A

Introduction to Shalya Tantra - definition and importance of Shalya Tantra, qualities of surgeon.

1. Trividha karma- Poorva karma, Pradhan karma and Pashchat karma (preoperative, operative and post operative) procedures related to application of Kshara and Kshara Sutra in ano-rectal disorders.

2. Surgical ethics.

3. Basic surgical concepts and practice of surgery.

4. Anatomy and physiology of ano-rectal region.

a) Ayurvedic View

Anatomical concepts of Guda in Ayurveda, development, various measurements, Guda vali, Uttaraguda and Adharaguda, Guda as a Marma. Function of Uttarguda and Adharaguda. Importance of Guda valis and their functions in act of defaecation. Concept of Apana Vayu and its function. Importance of Apana Vayu in act of defaecation, micturation and its involvement in the development of various anorectal disorders. Features of vitiated Apana vayu and measures of pacification.

b) Modern View

Anatomical structures in ano-rectal region, anatomy of anal canal, rectum, perianal area, perianal skin, fascia, muscles, anal sphincters, supports of rectum and anal canal, various structures / spaces around anal and perianal area and their significance in ano-rectal disorders. Anal gland, anal crypts, anal mucosa, anal valves, land marks of anal canal and rectum. Venous and arterial supply, venous plexus, speciality of vascular supply of rectum and anal canal. Lymphatics and innervations of rectum and anal canal. Pudendal canal (Alcocks canal) its contents and importance. Peritoneal reflections, facial covering of rectum, pelvic diaphragm, male

and female perineum. Histological structures of rectum and anal canal. Functions of anal canal, rectum, perianal muscles, anal sphincter, act of defaecation, storage of waste product, structures in relation to anorectal area and their functional impact on anorectal area in relation to anorectal disorders. Continence and incontinence, assessment of anal sphincter tone.

PART B

1. Knowledge of equipments/surgical instruments used for diagnosis and management of ano-rectal disorders. Instruments useful in the diagnosis and treatment of Fistulain- ano. Dr.P.J.Deshpande's instruments for the use of Kshara karma.
2. Sterilization – Importance, methods and their application.
3. Diagnostic investigations for ano-rectal disorders, knowledge of Radiograph, Fistulogram, Sonogram, Sonography, CAT-Scan, MRI and other updated equipments.
4. Introduction to Research Methodology and Bio Statistics

PAPER – II

Ayurvedic and Modern Drugs Pharmacology

Theory – 100 Marks

PART A

1. Detailed description of Kshara –
 - a) Definition, types- Pratisaraneeya Kshara and Paneeya Kshara , properties, pharmacological actions of drugs, chemical constituents, method of preparation, its standardization, sterilization and storage.
 - b) Indications, contraindications and complications of Kshara karma.
2. Ksharsutra preparation –
 - a) Historical aspects, various drugs used for its preparation including their identification, collection, properties, pharmacological actions of drugs, chemical constituents, method of preparation, its standardization, sterilization and storage.
 - b) Indications and contraindications and complications of Kshara Sutra in Anorectal diseases.
 - c) Various other Kshara preparations like – Kshar varti and Kshar pichu.
3. Pharmacodynamics of Kshara -

Chemical analysis, pH value, probable mode of action like penetration, necrotic and dissolution actions of Kshara.
4. Description of Paneeya Kshara and its indications.

PART B

1. Detailed study of pharmacology of the following drugs used in the management of ano-rectal disorders.
 - (a) Antibiotics
 - (b) Laxatives
 - (c) Analgesics and NSAID's
 - (d) Haemostatics
 - (e) Anaesthetic agents
2. Ayurvedic drugs used in ano-rectal disorders

PRACTICAL

100 Marks

Distribution of marks (Practical):

1. Case record	- 10 Marks
2. Log Book	- 10 Marks
3. Long Case	- 20 Marks
4. Short Case	- 10 Marks
5. Instruments and X-ray	- 20 Marks
6. Project Presentation	- 10 Marks
7. Viva- Voce	- 20 Marks
Total	- 100 Marks

Second Year

Theory (Two Papers) – Maximum Marks - 100 Each

Practical (One) - Maximum Marks - 100

PAPER – I

Nidan and Chikitsa

Theory – 100 Marks

PART A

1. Nidan, Samprapti, Lakshana and Chikitsa of Vrana Shopha, Vrana and Nadi Vrana.
2. Aetiopathogenesis, types, signs and symptoms of inflammation, wound, sinus & pilonidal sinus.
3. Nidan, Samprapti, Lakshana and Chikitsa of Guda vidradhi.
4. Bhagandar Pidika and Bhagandar –

Bhagandar Pidika – Aetiology, types, clinical presentation, character, differential diagnosis, investigations, curable and incurable varieties, prevention and management of Bhagandar Pidaka.

Perianal, ischio-rectal, sub mucosal and other abscesses in the ano-rectal area and perineum; their clinical presentation, investigations, differential diagnosis and management.

Bhagandar- Aetiopathogenesis, types, classifications, clinical presentations, diagnosis, investigations, methods of treatment and prognosis, surgical principles, pre-operative preparations, types of incisions, operative techniques in Ayurveda for the management of Bhagandar. Post operative measures, Complications and their management.

Medical management - conservative and para surgical procedures like Kshara and Agni karma in the treatment of Bhagandar.

PART B

Fistula -in-ano:

1. Its definition, aetiology, classifications, clinical presentation and diagnostic modalities
2. Complicated fistulae and their management – Treatment of difficult and complicated fistula-in-ano e.g. blind internal, blind external, supra levator extension, multiple fistula-in-ano, long perineal and gluteal extension. Horse shoe type fistula-in-ano, recurrent fistula-in-ano.
3. Fistulae other than crypto glandular origin - Fistula communicating with other organs like urethra, vagina, and urinary bladder, traumatic fistula etc.
4. Treatment of fistula-in-ano – Different modalities of fistula-in-ano; fistulectomy, fistulotomy, fistulectomy with primary closure, fistulectomy with skin grafting, etc, Seton treatment of fistula-in-ano; indications and contraindications, merits and demerits.
5. Management of fistula in ano in patients suffering from Diabetes, HIV, Tuberculosis, IHD and in those on steroid therapy.
6. Pre operative measures - Different Pre-operative preparation related to application of Kshara and Ksharsutra in anorectal diseases specially fistula-in-ano.
7. Post operative care - Postoperative care, wound care, urinary problems and follow up patients, etc.
8. Adjuvant therapy - Analgesics and Antibiotics and other Ayurvedic medicines in the management of fistula-in-ano.

PAPER – II

Nidan and Chikitsa

Theory – 100 Marks

PART A

1. Arshas (Haemorrhoids)
 - a) Definition, aetiopathogenesis, prodromal features, types, clinical features, diagnosis, differential diagnosis, complications, prognosis and management according to Ayurveda and Modern.
 - b) Management of Arsha by Kshara lepa and Kshara sutra – Indications, method of application, observations and post operative observations.
2. Parikartika (Fissure-in-ano)

Definition, aetiopathogenesis, prodromal features, types, clinical features, diagnosis, differential diagnosis, complications, prognosis and management according to Ayurveda and Modern.
3. Guda Bhramsha (Prolapse of rectum): Definition, aetiopathogenesis, clinical features and management according to Ayurveda and Modern medicine.

PART B

1. Management of pain during and after Ksharsutra therapy and measures to minimize the pain.
2. Problems and complications of Kshara Karma and Ksharsutra therapy e.g. pain, haemorrhage, infection, delayed cutting, recurrence, incontinence, strictures etc. and their management.
3. Modified technique of Ksharsutra in treatment of fistula-in-ano by Ksharsutra. Combination of surgery and Ksharsutra therapy.
4. Diagnosis of Malignancies and referral :
 - a) Malignancy of prostate
 - b) Malignancy of anal canal and rectum
 - c) Malignancy of external genitalia, cervix and uterus
 - d) Any other condition requiring immediate intervention /referral to an appropriate facility.
5. Update knowledge of Research and recent advances in the field of Kshara karma.

PRACTICAL

100 Marks

Contents of Practical

1. Case history recording and demonstration of Kshara Karma on patients.
2. Guidelines for Practical Training:
 - a) History taking and clinical examination of ano-rectal diseases.
 - b) Application of Kshara Karma-
Observed - 100 cases
Assisted - 50 cases
Operated - 25 cases
3. Clinical examination of ano-rectal diseases includes rectal examination, digital examination, abdominal examination and inguinal examination.
4. Special Investigations:
 - a) Proctoscopy
 - b) Sigmoidoscopy
 - c) Techniques of fistulogram
 - d) Anal manometry
 - e) Any other latest diagnostic radiological investigations.

Pattern of Practical Examination

1. Case Record	20 Marks
2. Applicability of Kshara Karma in different diseases particularly in reference to the Fistula-in-Ano, Haemorrhoids etc.	30 Marks
3. Project Work	20 Marks
4. Viva-voce	30 Marks
TOTAL	100 Marks

Text Books for Reference

1. Relevant portions of Sharir Rachana and Kriya from Bhrihatrayee and Laghutrayee.
2. Clinical Anatomy for Medical student : Snell
3. Text Book of Medical Physiology : Guyton and Hall
4. Manual of Surgical Instruments and Procedures : M.M.Kapur
5. Kshara Sutra : RAV
6. Essentials of Medical Pharmacology : K.D. Tripathi
7. Primary Anaesthesia : Maurice King
8. Relevant portions from Bhrihatrayee and Laghutrayee
9. Surgery of Colon, Rectum and Anus : Rob and Smith
10. Surgery of the Anus, Rectum and Colon : Goligher. JC
11. Demonstration of Physical signs in clinical surgery : Hamilton Bailey
12. Treatment of Fistula-in-ano by a new technique : P.J. Deshpande and K.R.Sharma.
13. Standardisation of Kshara Sutra – Ayurvedic medicated thread used in the management of Fistula-in-ano Jr. Proct. Feb. 1993 : Anupam Sharma, Manisha Mehata, Handa S.S et al
14. IMCR centre for advanced Pharmacological Research on Traditional Remedies, CDRI Lucknow.
15. Dr. P. J. Deshpande's instruments for the use of Kshara Karma.

Additional Books for Reference

1. Anorectal Disorders Ayurvedic Approach - Dr. Rajasree

2.11 No: of hours per subject (lecture-tutorial-seminar-group discussion)

Given under Clause No. 2.10

2.12 Practical training given in labs/supervision (No: of hours for each exercise/training)

Given under Clause No. 2.10

2.13 Records

Relevant records are to be maintained

2.14 Dissertation: Guide/Co-Guide/ Change of Guide

Not Applicable

2.15 Speciality training if any

Given under Clause No. 2.10

2.16 Project work

1. Details of the project work shall be submitted to the concerned department head by the PG scholar within 6 months of starting of the course.
2. A guide shall be allotted to each scholar by the concerned department head.
3. The guide or supervisor shall be a person of status of a Professor or Associate Professor or Assistant professor with five years University approved teaching experience in the subject.
4. Project shall be practical oriented and helpful in the competence in respective specialties. The subject of the project work shall have relation with the subject matter of the specialty.

5. Project reports shall be of minimum 100 and maximum 120 pages.
6. Project must be submitted to the concerned department head 6 months before the final examination.
7. The scholar shall submit 5 copies of project work – 1 for PG Diploma scholar, 1 for Guide, 1 for Department Library, 1 for College Library and 1 for University.

2.17 Any other requirements [CME, Paper Publishing etc.]

Every student shall make presentation on identified subject in the institution and at least ten seminars should be presented to make eligible to appear in the final year examination.

2.18 Prescribed/recommended textbooks for each subject

Given under clause No. 2.10

2.19 Reference books

Given under clause No. 2.10

2.20 Journals

Print

1. J-AIM Journal of Ayurveda and Integrative Medicine –ISSN: 0975 9476
2. Journal of Indian Medical Heritage - ISSN: 0975-430X
3. Journal of Research in Ayurveda and Siddha -ISSN: 0254-3478
4. Annals of Ayurvedic Medicine – ISSN 2277-4092
5. Journal of Ayurveda - ISSN:2321-0435
6. International Journal of Applied Ayurved Research - ISSN - 2347 6362
7. Biomedical and Biotechnology Research journal ISSN -2588-9834
8. International Journal of Ayurveda and Alternative Medicine ISSN: 2395-3985
9. International Journal of Ayurvedic and Herbal Medicine ISSN: 2249-546
10. AYU – Research Journal-ISSN: 0974-8520
11. Ancient Science Life – ISSN: 0257-7941
12. Journal of Indian Systems of Medicine – ISSN: 2320-4419
13. Indian Journal of Traditional Knowledge – ISSN 0972-5938
14. Indian Journal of Natural Products & Resources – ISSN: 0976-0504
15. International Journal of Ayurveda Research – ISSN: 0974-925X
16. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy, ISSN: 2320 – 0251
17. Aryavaidyan, ISSN: 0976-4086
18. JREIM - The Journal of Research and Education in Indian Medicine. ISSN 0970-7700
19. International Journal of Ayurvedic Medicine (IJAM). ISSN – 0976-5921
20. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. ISSN: 2321–6484
21. Planta Medica- Journal of Medicinal Plant and Natural Product Research. ISSN – 0032-0943
22. International Journal of Medicinal and Aromatic Plants (IJMAP). ISSN – 2249-4340
23. Journal of Medicinal Plants Research (JMPR). ISSN: 1996-0875
24. European Journal of Medicinal Plants. ISSN: 2231-0894
25. Journal of Sanskrit Samhita and Siddhanta. ISSN No - 2454-3926
26. Journal of Research in Ayurvedic Sciences. ISSN: 2456-5601,

27. Journal of Drug research in Ayurvedic Sciences. ISSN: 2279-0357
28. Journal of Evidence-Based Integrative Medicine. ISSN: 2515690X
29. The Journal of Alternative and Complementary Medicine. ISSN: 1075-5535
30. Journal of Ayurvedic and Herbal Medicine (JAHM). ISSN: 2454-5023
31. Advances in Integrative Medicine. ISSN: 2212-9626
32. International Research Journal of India. ISSN: 2454-8707
33. Journal of Traditional and Folk Practices. ISSN: 2278-5906
34. Kerala Journal of Ayurveda. Published by Akhila Kerala Govt Ayurveda College Adhyapaka Sanghatana. e-mail: ayushkamy@gmail.com
35. Bhishak, Published by VPSV Ayurveda College, Kottakkal.
36. Dhanwantari Journal of Ayurveda – Published by PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala.
37. Glitters of Ayurveda , Published by Sree Narayana Institute of Ayurvedic Studies and Research, Puthoor, Kollam, E-mail - snayurveda@gmail.com.

E-Journals

1. Ancient Science of Life. eISSN: 2249-9547
2. Indian Journal of Traditional Knowledge (IJTK). eISSN: 0975-1068
3. Journal of Ayush:-Ayurveda, Yoga, Unani, Siddha and Homeopathy. eISSN: 2278-2214
4. Journal of Research in Ayurvedic Sciences. eISSN: 2581-9895
5. Journal of Drug research in Ayurvedic Sciences. eISSN: 2581-8295
6. Journal of Evidence-Based Integrative Medicine. eISSN: 2515690X
7. The Journal of Alternative and Complementary Medicine. eISSN: 1557-7708
8. Journal of Research in Traditional Medicine (JRTM). eISSN: 2455-3166
9. International Journal of Ayurveda and Alternative Medicine eISSN: 2348-0173
10. Journal of Indian Systems of Medicine. eISSN: 2455-5029
11. Indian Journal of Natural Products & Resources. eISSN: 0976-0512
12. Annals of Ayurvedic Medicine. eISSN: 2347-6923
13. Ayurline: International Journal of Research in Indian Medicine. eISSN: 2456-4435
14. Advances in Applied Science Research –E-ISSN- 0976-8610
15. International Research Journal of Pharmacy and Medical Sciences. eISSN: 2481-3277
16. Health Sciences -*healthsciences.ac.in/Open Access Peer Reviewed E-Journal*. Kerala University of Health Sciences, Thrissur.

2.21 Logbook

Shall be maintained in all Post Graduate Courses. All academic work should be maintained and shall be countersigned by concerned HOD.

3. EXAMINATIONS

3.1 Eligibility to appear for examinations [including Supplementary]

A. Preliminary examination:

A minimum of 80% attendance and the candidate should have submitted the details of the ensuing project work in time.

B. Final examination:

For appearing final year examination 80 % attendance in each theory and practical subjects separately is required

If a student fails in the preliminary examination he/she can continue the course but shall have to pass preliminary examination at least 90 days before appearing final year examination.

3.2 Schedule of Regular/Supplementary exams

The University shall conduct not more than two examinations in a year.

3.3 Scheme of examination showing maximum marks and minimum marks

The postgraduate diploma course shall have two examinations in the following manner :—

1. The preliminary examination shall be conducted by the institution where student is under going training at the end of one academic year after admission to make the student eligible to appear in the final examination.
2. The final examination shall be conducted at the end of second year. The students will have to pass preliminary examination at least 90 days before appearing final year examination.
3. The final examination conducted by the University at the end of two years shall cover 75% of II year and 25% syllabus of I year.
4. Minimum passing marks shall be 50% in theory and practical separately.
5. If an Examination could not be conducted due to a local Bandh or any other difficulties in conducting Examination, that particular Examination shall be conducted on the next working day.

SCHEDULE OF EXAMINATIONS

- a. The preliminary examination shall be conducted at the end of one academic year after commencement of course.
- b. The final examination shall be conducted on completion of two academic years after commencement of PG 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.
- e. The student shall obtain minimum 50% marks in Theory and Practical separately to be announced as pass.
- f. If a student fails in preliminary examination, he/she shall have to pass preliminary examination at least 90 days before appearing final year examination.
- g. If the student fails in theory or practical in the final examination he/she can appear in the subsequent examination without requiring submit a fresh project work.
- h. The post- graduate diploma shall be conferred after the student passes the final examination.

CONDUCT OF EXAMINATION

Diploma examination in any subject shall consist of theory, clinical, practical and oral.

1. **Theory:** There shall be two theory papers and two sections in each paper. One paper out of these shall essentially consist of the basics of the concerned discipline.

2. **Clinical:** Clinical examination of the subject shall be conducted to test/aimed at assessing the knowledge and competence of the candidate for undertaking independent work as a specialist.

3. **Practical:** Practical examination shall be conducted to assess practical skill and competence of respective specialities.

4. **Viva-Voce:** The Viva-voce examination shall be thorough and shall aim at assessing the candidate's knowledge, competence, understanding of the subject and communication skill of concerned subject which shall form a part of examination.

QUESTION PAPER PATTERN

Question paper pattern will be as per recommendations of the Board of Studies.

The pattern is long essay for 20 marks -one question

Short essay 10 marks - Eight questions

Total 9 questions for 100 marks

3.4 Papers in each year

Given under clause No.2.10

3.5 Details of theory exams [include number of papers, duration, type of questions & number of questions and marks]

Given under clause No. 2.10 & 3.3

3.6 Model question paper for each subject with question paper pattern

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Kshar Karma (Diploma in Kshar Karma)
(..... scheme)**

Paper I - Basic principles

Time: 3 Hours

Max. Marks: 100

- Answer all questions.

Essay

(20)

1. Explain Trividha karma and its significance in anorectal surgery.

Short Essays

(8 x 10)

2. Ayurvedic concept of Guda
3. Chemical sterilization
4. Anal sphincters
5. Surgical ethics in current surgical practice.
6. Diagnostic modalities in Fistula in Ano
7. Surgical site infections
8. Randomized controlled trial
9. Surgical instruments useful in diagnosis of Haemorrhoids

QP CODE:

Register No.....

PG Diploma Ayurveda Preliminary Examinations.....

**Kshar Karma (Diploma in Kshar Karma)
(..... scheme)**

Paper II – Ayurvedic and Modern Drugs Pharmacology

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Describe the method of preparation, standardization, sterilization and storage of Pratisaraniya Kshara

Short Essays

(8x10=80)

2. Indications and contraindications of Kshara karma
3. Pharmacodynamics of Apamarga Kshara
4. Antibiotics in anorectal diseases
5. Indication and different methods of preparation of Paniya kshara
6. Laxatives - Ayurveda and modern concept
7. Ksharavarti
8. Any five Ksharasutra with its pharmacological action.
9. Analyse the yoga - Guggulu panchapala Choornam.

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Kshar Karma (Diploma in Kshar Karma)
(..... scheme)**

Paper I - Nidan and Chikitsa

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Explain various operative techniques in the management of Bhagandara

Short Essays

(8x10 = 80)

2. Ischiorectal abscess
3. Aetiopathogenesis and clinical features of Fistula in ano
4. Multiple fistula
5. Parasurgical treatment in Bhagandara
6. Care of HIV infected Fistula in ano cases
7. Pre-operative measures in ano rectal diseases
8. Nadvranam
9. Inflammation

QP CODE:

Register No.....

Final Year PG Diploma Ayurveda Examinations.....

**Kshar Karma (Diploma in Kshar Karma)
(..... scheme)**

Paper II - Nidan and Chikitsa

Time: 3 hrs

Max Marks: 100

- Answer all questions

Essay

(20)

1. Describe aetiopathogenesis, types, diagnosis and complications of Haemorrhoids (Arsas)

Short Essays

(8x10 = 80)

2. Ksharalepa in Arsas
3. Management of Rectal prolapse
4. Complications and its management in Ksharakarma
5. Diagnosis of Rectal Carcinoma
6. Pain management in Ksharasutra therapy
7. Diagnosis and management of Parikarthika (Fissure in ano)
8. Management of Haemorrhage during Ksharasutra therapy
9. Recent advances in the field of Kshara karma

3.7 Internal assessment component

Not applicable

3.8 Details of practical/clinical exams [include duration, type of cases/questions and marks]

Given under clause No.2.10 & 3.3

3.9 Number of examiners needed (Internal & External) and their qualifications

The preliminary examination and final examination will be held in theory, clinical, practical and oral examinations.

Preliminary Examination - Two senior most examiners from the same department shall be there to conduct the examination.

Final year examination – A team of 2 examiners shall be there to conduct the examination out of which one shall be from external zone. The examiners should be a minimum of Associate Professor Level or should have minimum 5 years PG teaching experience.

3.10 Details of viva: division of marks

Viva-voce shall be conducted separately by each examiner and coordinated by the senior most internal examiner. The same person shall finalize the mark sheet of practical and viva-voce examinations, in consultation with the other examiner.

4. INTERNSHIP

Not applicable

5. ANNEXURES

5.1 Check Lists for Monitoring

Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution

