

Dr. D. Y. Patil Vidyapeeth, Pune

Pattern for Pre-Ph. D. Examination for the faculties of

**Medicine, Dentistry, Biotechnology & Bioinformatics, Nursing,
Allied Medical Science (Physiotherapy), Ayurved, Homoeopathic**

Paper I	Research Methodology & Biostatistics No of total Questions - 10 (5 Questions on Research Methodology and 5 Questions on Biostatistics) Each Questions carries 5 marks	Total Marks - 50
Paper II	Recent advances in the concerned speciality No of total Questions - 10 Each Questions carries 5 marks	Total Marks - 50
Paper III	Presentation & Discussion (Relevant to the Research topic for Ph. D.)	Total Marks - 50

**Dr. D.Y. Patil College of Ayurved & Research Centre,
Pimpri, Pune - 411018**

Pre - Ph.D. Syllabus

Index

Sr. No.	PAPER	Subjects
1.	I	Research Methodology & BioStatistics
2.	II RECENT ADVANCES IN THE CONCERNED SPECIALTY, APPLIED ASPECTS	Ayurved Samhita Siddhant
3.		Swasthvritta
4.		Rognidan
5.		Kayachikitsa
6.		Shalya Tantra
7.		Striroga & Prasutitantra
8.		Panchakarma
9.		Kriya Sharir
10.		Shalakyta Tantra
11.		Rachana Sharir
12.	Rasashastra Evam Bhaishajya Kalpana	
13.	Dravyaguna Vigyan	
14.	Agad Tantra, Vyavahar Ayurved Evam Vidhi Vaidyak	
15.	Kaumarbhritya (Bal-Roga)	
16.	III	Presentation & Discussion
17.		Exam Pattern

SYLLABUS: RESEARCH METHODOLOGY & BIOSTATISTICS

50 MARKS

30 Hrs.

Research Methodology	
Sr. No.	Topic
Section A	
1.	Introduction to research methodology in ayurved practice and the research question
2.	Research Methodology in Ayurveda
3.	Concept of populations and samples
4.	Fundamental principles of measurements and data management
5.	Ethical issue in clinical research
6.	Architecture of Research Designs
7.	a) Descriptive and cross sectional studies b) Case control studies
8.	a) Cohort studies b) Randomized controlled trials, Qualitative studies, Systematic reviews metanalysis.
9.	Methods of Data Collection
10.	Data Interpretation (Qualitative & Quantitative)
11.	How to prepare a research proposal, Literature survey for the proposed research work.
12.	Writing the research protocol
13.	Critical appraisal of a journal articles relevant to the proposed topic.
14.	Presentation and publishing a research article.
Bio-Statistics	
Section B	
1	Measures of disease frequency
2	Measures of effect and association
3	Estimation and hypothesis testing including tests of Significance(Chi-square, t-tests, ANOVA, Non parametric tests)
4	The concept of confidence intervals
5	Sample size and sampling
6	SPSS/SAS/Stata/Epi Info applications
7	Measurement errors, reliability, validity and bias
8	Confounding and measures to deal with it (matching, stratified analysis and multivariate analysis)
9	Study of diagnostic tests (Sensitivity, specificity, ROC curve, Bays' theorem)

SUBJECT: AYURVEDA SAMHITA SIDDHANTA

60 hours-

Section One

Sr. No.	Topic	Hours
SECTION - I		
1.	Importance of CharakSamhita Sutra sthana , Vimana sthana, Sharira sthana in present era with special reference to maintenance of health and prevention of diseases.	16hrs
2.	Importance of Ayurvedic compendia in present era for the treatment of AnuktaVyadhi	4 hrs
3.	Knowledge of Basic siddhantas of Ayurveda & their practical application . e.g.Triskandh Ayurveda, Panch mahabhoot siddhant, Lok-purush samya siddhant, Swabhavoparam vaad etc	8 hrs
4.	Role of peer reviewed journals in research and advancement of Ayurveda	2 hrs
SECTION - II		
5.	Study of special features with respect to Nidana &Chikitsa from Ayurveda Samhitas.	10hrs
6.	Role of History & Contribution of commentaries in development & understanding Ayurveda	8 hrs
7.	Sutra Sthan from SushrutSamhita with Dalhan commentary.	8 hrs
8.	Contribution of Laghutrayee in advancement of Ayurveda and research.	4 hrs

SUBJECT- SWASTHAVRITTA

Sr. No.	Topic	Hours
SECTION - I		
1.	Concept of holistic health According to Ayurveda. Spectrum of health, Iceberg phenomenon of diseases, dimensions of health.	02
2.	Applied aspect of Dinacharya and Ritucharya Probable Physiologic effect of Dinacharya procedures. Ritu pattern in various countries of the world and Changing environment and application of ritucharya concept	06
3.	. Effect of ritus on health and preventive measures. 1. Ahara - 1. Concepts of Diet Ayurveda perceptive and its applied aspect 2. Staple diet of various States of India. Staple diet of various countries in correlation with their climate and its study from ayurved Aahar perceptive.	06
4.	Concept of Rasayana , vajikarana and its role in swasthvritta AcharaRasayana, Nityarasayana. Rasayana procedures for Swastha Vajeekarana for Swastha.	02
5.	Vyadhikshamatva . Modern and Ayurvedic concepts. Immunization programmes. Possible contribution of Ayurveda	06
6.	Concept of community health. Ecology and community health Environment and community health Disposal of Wastes- Refuse, Sewage, bio medical waste management	10
7.	Concept of Epidemiology Critical evaluation of Janapadodhwamsa. Epidemiology of different Communicable diseases in detail. Control of Epidemics	10

Sr. No.	Topic	Hours
8.	Demography and Family Planning. Family Welfare Programme and the role of Ayurveda in it.	08
9.	National Health Programmes in Contribution of Ayurveda in National Health Programmes. Health administration under Ministry of H &FWD 15, AYUSH , NRHM, NUHM administration, functions and programmes. Statistics related with Infectious diseases at International, National and State levels Vital Statistics	02
10.	Yoga and Naturopathy History and evolution of Yoga Different Schools of Yoga Physiological effect of Yoga on Body and mind . Ancient and modern concepts Therapeutic effect of yogic practice in the following diseases - Diabetes, Hypertension, Cardiovascular disorders, Obesity, Asthma, Piles, Irritable Bowel Syndrome, Eczema, Psoriasis, Stress Disorders, Eye disorders, Head Ache, Juvenile Delinquency, Mental retardation, Depression, Neurosis, Sexual Dysfunction, Uterine Disorders, Cancer. Basic Principles of Indian School of Nature Cure	08

SUBJECT: ROGA NIDANA AVUM VIKRITI VIGYAN SPECIALITY**60 Hours**

Sr. No.	Topic	Hours
SECTION - I		
1.	Understanding of Samprapti of diseases in Charaka Nidana Sthana in contemporary context.	4 hrs
2.	Clinical aspects of Dosha, Dhatu, Upadhatu, Mala, Agni, Ama, Srotas and Indriya	3 hrs
3.	Understanding of the role of Trividha Avasthapaka in the vitiation of Dosha.	2 hrs
4.	Concept of Nanatmaja and Samanyaja Vikara.	1 hr
5.	Clinical application of Avarana in diagnosis of various diseases.	2 hrs
6.	Clinical application of Shatkriyakala in diagnosis of diseases.	1 hr
7.	Clinical and applied aspects of concept of Upadrava and Arista.	1 hr
8.	Ayurvedic interpretation of various laboratory investigations to derive treatment principles.	2 hrs
9.	Interpretation of various Rogi Bala and Roga Bala technique to plan Chikitsa Sutra	2 hrs
10.	Clinical examination of Deha Bala, Roga Bala, Agnibala And Chetas Bala	2 hrs
11.	Knowledge of current diagnostic tools like ECG, X-Ray, CT scan, MRI and USG	4 hrs
12.	Introduction to clinical methods and techniques for the study of clinical examination. 2	2 hrs
13.	.Importance of medical history taking and its importance in clinical medicine.	2 hrs
14.	Aims, Objectives and Methods applied aspects and importance of various Rogi and Rogapariksha as per classics	2 hrs
15.	Srotaspariksha, ShadangaParikshavis-a-vis general & systemic examination of patient.	3 hrs
16.	Interpretation of Charakoktatrividhapramanapariksha and Sushrutoktashadvidhapariksha with clinical methods mentioned in modern medicine.	3 hrs
17.	Interpretation and use of asthasthananirikshana along with use of current tools as per Ayurved.	2 hrs
18.	Charakoktadashavidha and SushrutoktaDwadashavidhapariksha along with the use of modern supportive tools for understanding of rogabala and rogabala concept to derive chikitsa sutra.	3 hrs
19.	Ayurvedic interpretation of all relevant findings of modern clinical examination.	3 hrs
20.	Understanding of diagnostic procedures in medical emergencies.	2 hrs
21.	Concept of good clinical practices in Ayurveda and modern medicine.	2 hrs

Sr. No.	Topic	Hours
22.	Knowledge of standard clinical laboratory set up.	2 hrs
23.	Knowledge of Ancillary common laboratory investigations(haematology, biochemistry, Serology, Body fluids) for diagnosis of diseases, their methods, normal and abnormal values, factors influencing values & clinical significance as mentioned in practical syllabus.	2 hrs
24.	Importance of Bio markers and their utility in clinical researches.	2 hrs
25.	Update knowledge of emerging diagnostic tools and technologies.	2 hrs
26.	Knowledge of Various Ayurvedic diagnostic softwares/ programmes available	2 hrs
27.	Avayavapariksha-Radio-Imaging techniques; ECG, EEG etc and their clinical interpretation.	2 hrs

SYLLABUS: KAYACHIKITSA

60 hours

Sr. No.	Topic	Hours
1.	Basic principles in clinical research of KAYACHIKITSA. Ayurvedic research methodology according to Charak Viman Sthana	05
2.	Dwividhopakram and Shadvidhopkram & their importance. a) Langhan b) Bruhan c) Rukshan d) Snehan e) Swedan f) Stambhan	10
3.	Detail knowledge of Kalpa (Rasakalpa, Churna, Guti-vati, Asav-Aristha, Ghrita-taila) Routes of Ayurvedic drug administration and applied aspect	10
4.	Rasayan and Vajikaran	05
5.	Chikitsa Siddhanta of Ayurveda and modern management including recent advances of Pranavaha, Annavaha, Udakvaha, Rasadidhatuvaha, Malavaha And Manovaha Srotovikar	30

SUBJECT: SHALYA TANTRA

Hours - 60

Sr. No.	Topic	Hours
1.	All available references related to shalya tantra in various books & samhitas , Sushruta Samhita a) Sutrasthan b) Nidan sthan c) Sharira sthan d) Chikitsa sthan e) Kalpa sthan	5 hrs 5 hrs 5 hrs 5 hrs 5 hrs
2.	Sushruta Samhita a) Historical aspect b) Sanskritika aspect c) Shahityika aspect d) Contribution of sushruta in sushruta samhita All available references in respect to above related to shalya tantra in various books & samhitas ,	5 hrs 5 hrs 5 hrs 5 hrs
3.	Sushruta Samhita - Uttartantra - Sampurna PART III	5 hrs
4.	Surgery - Modern aspect	10 Hrs

SUBJECT: PRASUTI TANTRA- STREE ROGA --**60: Hours**

Sr. No.	Topic	Hours
SECTION - I		
1.	Ayurvedic basic principles related and useful in prasuti tantra and stree roga Garbhagarbhini Vigyana	5 hrs
2.	Bija - Bijabhaga - Bijabhagavayava janya garbhanga vikrithi. Genetics, Ayurgenomics Birth defects and other teratologic abnormalities	1 hrs
3.	Garbhavyapada	3 hrs
4.	Garbhini vyapada	3 hrs
5.	Evaluation of Foetal and Maternal health in complicated pregnancies by making use of diagnostic modalities.	3 hrs
6.	Prenatal diagnosis of fetal abnormalities and appropriate care. PNDT Act and its Implications.	1 hrs
7.	Panchakarma and Yoga in Prasuti tantra	2 hr
8.	Prasava - Vigyana	5 hrs
9.	Sutika vigyana	3 hrs
10.	Obstetric management of high risk Pregnancies	2 hrs
11.	Obstetric shock and management	2 hr
12.	Detailed study of Yoni Vyapada mentioned by different Acharyas with their commentaries and all possible correlations with modern gynecological diseases	5 hrs
13.	Vandhyatva, Adoption law	3 hrs
14.	Artificial Reproductive Treatment	2 hr
15.	Stanaj vyadhi.	2 hr
16.	Measures of contraception	2 hr
17.	Sthanik chikitsa Detailed study of Pichu, Varti, Dhupan, Dhavana, Parisheka, lepa, Kalkadharana, Uttarabasti, Agnikarma and Kshara Karma.	5 hrs
18.	Rajo Nirvritti	2 hr
19.	Modern and Ayurvedic--- Recent studies and advancement in the field of Prasuti Tantra & stree roga	2 hr
20.	Detail study of all drugs and herbo- mineral preparations useful in Prasuti tantra & stree roga	1 hr
21.	Drugs used in obstetric & Gynaec practice, indications/contraindications, doses and side effects.	1 hr

SUBJECTS: PANCHAKARMA**60 HOURS**

SN	Topic	Hours
1.	Basic principles of Ayurveda with reference to Panchakarma i.e.Dosha,Dushya,Mal,Shrotodushti,Anshanshakalpana,Kriyakal,Shadvidha and Dwividhopkrama,Antar and Bahirparimarjan Chikitsa	7
2.	Detail study of all panchakarma and Upkalpana followed by purva,pradhan,pacha karma and indications,contraindications, Vyapad, Vyapad management,samsarjankram,utility and importance of each panchakarma in diseases and healthy person.	15
3.	Knowledge of Aushadidravya used in panchakarma mentioned in Charak Chikistasthan,Kalpa sthan and Sidhistan.	10
4.	Applied aspect of anatomy and Physiology of all strotas.	10
5.	Areas of Research in Panchakarma and Knowledge of Quality Standards of National Accreditation Board of Hospital.	10
6.	Study of Physiotherapy and occupational therapy .	5
7.	Knowledge of Instruments and Equipments used in panchakarma in ancient times and modification therein now.	3

Subject :- Kriya Sharir -**60 hours**

Sr. No.	Topic	Time Duration
1	Basic Principles of Ayurved with reference to Kriya-Sharir i.e. 'Panchamahabhoota , Triguna, Samanya-Vishesha, Lok-Purusha Samya, Purusha concept .Description of recent advances in understanding of various bio- chemical and bio-physical mechanisms involved in Physiology and their correlation with Ayurveda fundamentals.	12
2	Physiological, clinical and research oriented approach in Dosha, Dhatu, Mala, Updhatu, Srotas, Indriya, Agni, Saarta, Panchana, and Dhatu-Poshana.	18
3	Modern laboratory, Ayurvedic and Clinical methods to assess functional mechanisms of the Doshas, Dhatus & Malas.	10
4	Recent advances in Prakruti analysis using tools like questionnaire and various software parameters. Recent studies exploring the genetic /biochemical/haematological/electro physiological basis of Prakruti.	7
5	Recent studies in Biorhythms . Study of instruments related to Kriya Sharir along with methods to develop possible objective parameters and principle of the instrument.	5
6	Recent advances in Neuro-Immune-Endocrine Physiology.	5
7	Recent advances in tissue engineering and stem cell research.	3

SYLLABUS: SHALAKYA TANTRA**60 HOURS**

Sr. No.	Topic	Hours
1.	Ancient Literary review of Shalakyatantra	2
2.	Basic principles of Ayurveda with reference to Shalakyatantra (Ashtavidhashastrkarmas, Chaturvidha chikitsa)	5
3.	Applied aspect of Netra kriyakalpas & other local treatment procedures of Karna - Nasa - Mukha & Shiro Rogas along with aushadhikalpas.	10
4.	Role of Panchakarma Chikitsa, Swasthavrutta , yoga practices.	3
5.	Chikitsa Siddhanta of Ayurved & Modern medicine & surgical management including recent advances in Eye, ENT, Head & Orodental disorders.	25
6.	Fundamentals of Refraction & audiology.	5
7.	Scope of researches in Shalakyatantra in present era.	3
8.	Effects of environmental hazards & life style disorders of Eye , ENT ,Head & Orodental disorders & their Modern& Ayurvedic preventive & therapeutic measures.	5
9.	Role of Ayurveda in National programme for control of blindness , Noise pollution & for prevention of oral cancer.	2

SYLLABUS: RACHANA SHARIR**HOURS : 60**

SN	Topic	No. of lectures (hrs)
1.	Shariropkramaniya Sharir - Concept of Karmapurush, Constitution of Purusha according to Dhatubheda, Basic principles of Panchmahabhut and Triguna siddhanta	12
2.	Garbha Sharir - Basic Principles of Garbha Sharir, Role of Tridosh and panchamahabhut in the Garbha Vruddhi, Anuvanshiki Siddhanta	15
4.	Pramana Sharir - Anguli and Anjali Parimaan	02
5.	Sira Dhamani Srotas - Concepts of Sira Dhamani Srotas and applied aspects	08
6.	Kostha and Aashaya - Concept of Kostha and Aashaya	04
7.	Marma Sharir - Basic principles of Marma Sharir, Classification of Marma Sharir, Clinical importance and applied part of Marma	12
8.	Kala Sharir - Concept and Types of Kala	03
9.	Uttamangiya Sharir - Shatchakra, Ida, Pingala and Sushumna Nadi	04

**SYLLABUS: RASASHASTRA EVAM BHAISHAJYA
KALPANA HOURS : 60**

Sr. No	Topic	No. Of lectures (hrs)
1.	Identification & knowledge with geographical, mineralogical, biological source, occurrence, Physico-Chemical characterization, Grahya-Grahyatva, Shodhan, Marana vidhi, Therapeutic Properties, Uses ➤ Parada ➤ Maharasa ➤ Uparasa ➤ Sadharana rasa ➤ Dhatu ➤ Ratna uparatna ➤ Visha-upavisha ➤ Sudha varga ➤ Sikata varga ➤ Kshar Varga	10
2.	Pharmaceutics Rasachikitsa Aushadhi Yog Vigyan Sidhhant (Basic principles) of ➤ Kharaliya rasa ➤ Kupipakwa rasayana ➤ Parpati Rasa ➤ Pottali rasa ➤ Loha evam mandur kalpa ➤ Panchavidha kashaya kalpana evam Upakalpana ➤ Avaleha Kalpana ➤ Snehapaka kalpna ➤ Sandhana Kalpana ➤ Pathya Kalpana ➤ New dosage forms – Recent Advances	20
3.	Pharmacology and Pharmacy management General Pharmacology ➤ Principle of pharmacology, pharmacodynamics, pharmacokinetics, absorption, distribution, metabolism, excretion, mechanism of action, dose determination & dose response, structure activity relationship ➤ Routes of drug administration ➤ Factors modifying drug effect, bio availability and bio equivalence, drug interaction, adverse drug reaction and drug toxicity ➤ Nano Technology ➤ Preclinical evaluation-Experimental pharmacology (Bio essay, in vitro, in vivo cell line studies) Animal ethics ➤ Clinical pharmacology	20
4.	Laws governing Ayurvedic drugs	10

SYLLABUS: DRAVYAGUNA VIDNYANA**HOURS: 60**

Sr. No	Topic	Description	No. Of lectures(hrs)
1	Morphological characteristics features	Distinguishing morphological characteristics features (swaroop) of medicinal plants listed in Ayurvedic pharmacopoeia of India (API).	4
2	Conceptual knowledge of Bruhatrayi, Laghutrayi with their commentaries & Nighantu	Knowledge & interpretation of Bruhatrayi, Laghutrayi along with their Commentators	2
3	Drug Research	Prashasta Bhesaja Parikshana as per Charakacharya; Pharmacognostical study of different parts of the plants with reference to Macroscopic and microscopic study and Qualitative and Quantitative analysis like foreign matter, extractive (water and alcohol), ash value, acid insoluble ash and TLC separation.; Methods of drugs Standardization and Quality control; Biomarkers Knowledge of clinical pharmacology and clinical drug research as per GCP guidelines	12
4	Pharmaco- vigilance, ADR	Knowledge of Pharmaco-vigilance in Ayurveda & modern medicine, Adverse drug reactions & drug interaction of medicinal plants, Drug incompatibility	2
5	Biodiversity	Knowledge of biodiversity, endangered medicinal species, threatened species	2
6	TKDL (Traditional Knowledge of Digital Library) Various acts	Knowledge of TKDL, Introduction to relevant portions of following Acts – Drugs and Cosmetic Act, Drug & Magic Remedies Act, FSSA (Food Safety and Standard Acts), AFA(Agriculture, Fisheries and Food Authority), Wildlife & Biodiversity Acts & Intellectual Property Right (IPR) and Regulations pertaining to Import and Export of Ayurvedic Drugs.	2
7	Pharmaco-genomics	Knowledge of Genetically Modified Plants. Knowledge of Pharmaco-genomics,	3
8	Drug action	Fundamental principles of drug action in Ayurveda and Modern Science; Drugs acting on Various Srotas (Various Systems), Site of drug action; Bhesaj Prayoga Siddhant [Principles of drug administration]	8

Sr. No	Topic	Description	No. Of lectures(hrs)
9	Study of Guna and Karma	Detailed study of Guna and Karma of dravyas listed in API and Bhavaprakasha Nighantu along with current research review. Comprehensive study of karma as defined in Brihatrayee & Laghutrayee	4
10	Anuktadravya	Knowledge of guna and karma of anuktadravyas. (Only karma should be asked not guna of anuktadravyas).	2
11	Experimental pharmacology	Experimental pharmacology for the evaluation of – analgesic, antipyretic, anti inflammatory, anti diabetic, anti hypertensive, hypo lipidemic, anti ulcer, cardio protective, hepatoprotective, diuretics, adaptogens, CNS (Central Nervous System) activities, anti microbial and anti mycotic activities.	10
12	Purification of Poisonous plants	Studies on changes occurring in purification of poisonous plants drugs	3
13	Dashemanigana and Agryasangraha	Dashemanigana and Agryasangraha of Charak and Vagbhat should be included.	6

**SYLLABUS: AGAD TANTRA, VYAVAHAR AYURVED EVAM VIDHI
VAIDYAK**

HOURS : 60

Sr. No.	TOPIC	NO. OF LECTURES (HRS)
1	Introduction to Agadtantra and its scope, it's sequential development in consecutive era	1
2	Visha- Ayurved view - definition, properties, Visha Vargikarana, Visha Prabhav, Visha Guna, Visha Vega, Visha Vegantar, Visha Karmukatva, Charakokta chikitsopkrama.	4
3	Examination of poison according to contemporary and ayurvedic methods.	3
4	Poison- Modern view. definition, classification, their action, route of administration, absorption, excretion and metabolism, diagnosis of acute and chronic poisoning, general principals of treatment of poisoning and duties of medical practitioner in case of suspected poisoning.	4
5	Concept of Vishas – Ancient and recent management	13
6	Madya according to Ayurved and Modern view	3
7	Various Acts pertaining to Agad Tantra and Vyavhar Ayurved	2
8	Introduction to Vyavhar Ayurved and Vidhi Vaidyak. (Forensic Medicine and Medical Jurisprudence) it's scope and history.	1
9	Legal procedure and doctor in court	1
10	Personal Identity and it's Medico-legal importance.	3
11	Death and it's Medico legal importance, Medico-legal Autopsy	6
12	Injury- Classification, Burns, Scalds, Effect of Lightening and Electric Shock it's Medico-legal importance related section of IPC (Indian Penal Code) in detail aspect	7
13	Asphyxial Deaths and it's medico-legal Importance	2
14	Medico-legal aspect of sterility impotency virginity artificial insemination, pregnancy, abortion, foeticide delivery, infanticide, battered baby, legitimacy of child and all related act	6
15	Forensic Psychiatry and it's medico-legal importance	2
16	Rights and functions of CCIM and MCIM, duties of RMP (Registered Medical Practitioner), professional misconduct, negligence and CPA (Consumer Protection Act.)	2

SYLLABUS OF KAUMARBHRITYA (BAL-ROGA) Subject. (60)

SN	Topic	Hrs.
1	Ancient Status & Advancements in the field of Kaumarbhritya Significant contribution of Kashyap Samhita & other texts of Ayurveda in the field of Kaumarbhritya.	10
2	Prakriti Bija-Bijabhaga- Bija Bhagavayava evam Tadjanya Vikriti (Genetics & related disorders). Garbha Vigyana (General embryology) Sharirik Vriddhi Mansik evam Samajikvikas (Physical growth, mental & social development of Child)	10
3	Navjatshishuvigyan evam poshan (Neonatology & nutrition). All Navjatshishuvyadhis with managements (Ayurved and modern).	10
4	Bala Poshan (Child Nutrition). Navjat Shishu Ahara (Neonatal feeding, Stanyadosha (Vitiation of Breastmilk), Stanya Shodhana (Purification of Breastmilk, Dhatri (Wet Nurse) Dhatriguna & dosha (Characteristics of wet nurse), Concept of breastmilk banking. Aushadhimatra (Modern & Ancient views). Concept of Vyadhikshamatva	10
5	Balrog (Pediatric Disorders) All systemic disorders with ayurvedic (as per all acharyas) and modern interpretation. Balagraha-Scientific study of Graha Roga. Panchakarma-Principles of Panchakarma & their application in Pediatric Practice	10
6	National programs related to Pediatrics. Update knowledge of Clinical Pediatrics. Applications of research Methodology in the field of Pediatrics	10

Paper - III

Presentation & Discussion 50 Marks

The presentation of the Research topic by the candidate will be evaluated by an Expert Committee in the concerned faculties. The candidate will be required to make a presentation under the following headings -

1. Need for Selection of the topic.
2. Aims & Objectives
3. Current Scenario (In relation to topic of research)
4. Detail study plan.
5. Evaluation Parameters.
6. Expected impact of study / Implications.

He / She will also be required to provide a brief report (10 sets) of the contents of the presentation not exceeding 10 pages) to the members of the Committee.

Exam Pattern

Paper I	Research Methodology & Biostatistics No of total Questions - 10 (5 Questions on Research Methodology and 5 Questions on Biostatistics) Each Questions carries 5 marks	Total Marks 50
Paper II	Recent advances in the concerned specialty No of total Questions - 10 Each Questions carries 5 marks	Total Marks 50
Paper III	Presentation & Discussion (Relevant to the Research topic for Ph.D.)	Total Marks 50