

M.D./M.S.-AYURVEDA

PRELIMINARY PAPER-I  
RESEARCH METHODOLOGY AND MEDICAL STATISTICS

**PART-A**  
**RESEARCH METHODOLOGY**

**1 Introduction to Research**

- A. Definition of the term research
- B. Definition of the term anusandhan
- C. Need of research in the field of Ayurveda

**2 General guidelines and steps in the research process**

- A. Selection of the research problem
- B. Literature review: different methods (including computer database) with their advantages and limitations
- C. Defining research problem and formulation of hypothesis
- D. Defining general and specific objectives
- E. Research design: observational and interventional, descriptive and analytical, preclinical and clinical, qualitative and quantitative
- F. Sample design
- G. Collection of the data
- H. Analysis of data.
- I. Generalization and interpretation, evaluation and assessment of hypothesis.
- J. Ethical aspects related to human and animal experimentation.
- K. Information about Institutional Ethics Committee (IEC) and Animal Ethics Committee (AEC) and their functions. Procedure to obtain clearance from respective committees, including filling up of the consent forms and information sheets and publication ethics.

**3 Preparation of research proposals in different disciplines for submission to funding agencies taking EMR-AYUSH scheme as a model.**

**4. Scientific writing and publication skills.**

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

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

Swastha, Atura Pariksha Paddhati  
Dashvidha Parikshya Bhava  
Tadvidya sambhasha, vadmarga and tantrayukti

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

**7. Different fields of Research in Ayurveda**

- a. Fundamental research on concepts of Ayurveda
- b. Panchamahabhuta and tridosha.
- c. Concepts of rasa, guna, virya, vipak, prabhav and karma
- d. Concept of prakriti-saradi bhava, ojas, srotas, agni, aam and koshta.

**8. Literary Research-**

Introduction to manuscriptology: Definition and scope. Collection, conservation, cataloguing. Data mining techniques, searching methods for new literature; search of new concepts in the available literature. Methods for searching internal and external evidences about authors, concepts and development of particular body of knowledge.

**9. Drug Research (Laboratory-based)-** Basic knowledge of the following:  
**Drug sources:** plant, animal and mineral. Methods of drug identification.

**Quality control and standardization aspects:** Basic knowledge of Pharmacopoeial standards and parameters as set by Ayurvedic Pharmacopoeia of India.

Information on WHO guidelines for standardization of herbal preparations. Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP).

**10. Safety aspects:** Protocols for assessing acute, sub-acute and chronic toxicity studies. Familiarization with AYUSH guidelines (Rule 170), CDCSO and OECD guidelines.

**11. Introduction to latest Trends in Drug Discovery and Drug Development**

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

**12. Clinical research:**

Introduction to Clinical Research Methodology identifying the priority areas of Ayurveda

Basic knowledge of the following:-

Observational and Interventional studies

Descriptive & Analytical studies

Longitudinal & Cross sectional studies

Prospective & Retrospectives studies

Cohort studies

Randomized Controlled Trials (RCT) & their types

Single-case design, case control studies, ethnographic studies, black box design, cross-over design, factorial design.

Errors and bias in research.

New concepts in clinical trial- Adaptive clinical trials/ Good clinical practices (GCP)  
Phases of Clinical studies: 0,1,2,3, and 4.

**Survey studies -**

Methodology, types, utility and analysis of Qualitative Research methods.  
Concepts of in-depth interview and Focus Group Discussion.

**13.** Pharmacovigilance for ASU drugs. Need, scope and aims & objectives. National Pharmacovigilance Programme for ASU drugs.

**14.** Introduction to bioinformatics, scope of bioinformatics, role of computers in biology. Introduction to Database- Pub med, Medlar and Scopus. Accession of databases.

**15.** Intellectual Property Rights- Different aspect and steps in patenting. Information on Traditional Knowledge Digital Library (TKDL).

**PART-B**

**40 marks**

**MEDICAL STATISTICS**

**Teaching hours: 80**

- 1 **Definition of Statistics :** Concepts, relevance and general applications of Biostatistics in Ayurveda  
Collection, classification, presentation, analysis and interpretation of data (Definition, utility and methods)
- 2 **Scales of Measurements** - nominal, ordinal, interval and ratio scales.  
**Types of variables** – Continuous, discrete, dependent and independent variables.  
**Type of series** – Simple, Continuous and Discrete
- 3 **Measures of Central tendency** – Mean, Median and Mode.
- 4 **Variability:** Types and measures of variability – Range, Quartile deviation, Percentile, Mean deviation and Standard deviation
- 5 **Probability:** Definitions, types and laws of probability,
- 6 **Normal distribution:** Concept and Properties, Sampling distribution, Standard Error, Confidence Interval and its application in interpretation of results and normal probability curve.
- 7 **Fundamentals of testing of hypotheses:**  
Null and alternate hypotheses, type I and type 2 errors.  
Tests of significance: Parametric and Non-Parametric tests, level of significance and power of the test, 'P' value and its interpretation, statistical significance and clinical significance
- 8 **Univariate analysis of categorical data:**  
Confidence interval of incidence and prevalence, Odds ratio, relative risk and Risk difference, and their confidence intervals
- 9 **Parametric tests:**  
'Z' test, Student's 't' test: paired and unpaired, 'F' test, Analysis of variance (ANOVA) test, repeated measures analysis of variance

**10 Non parametric methods:**

Chi-square test, Fisher's exact test, McNemar's test, Wilcoxon test, Mann-Whitney U test, Kruskal – Wallis with relevant post hoc tests (Dunn)

**11 Correlation and regression analysis:**

Concept, properties, computation and applications of correlation, Simple linear correlation, Karl Pearson's correlation co-efficient, Spearman's rank correlation.

Regression- simple and multiple.

**12 Sampling and Sample size computation for Ayurvedic research:**

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

**13 Vital statistics and Demography:**

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

**14 Familiarization with the use of Statistical software like SPSS/Graph Pad**

**PRACTICAL**

**100 marks**

**I. RESEARCH METHODOLOGY**

**hours 120**

**Teaching**

**PRACTICAL NAME**

**1 Pharmaceutical Chemistry**

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

**2 Awareness of Chromatographic Techniques**

Demonstration or Video clips of following:

- Thin-layer chromatography (TLC).
- Column chromatography (CC).
- Flash chromatography (FC)
- High-performance thin-layer chromatography (HPTLC)
- High Performance (Pressure) Liquid Chromatography (HPLC)
- Gas Chromatography (GC, GLC)

**4 Pharmacognosy**

Familiarization and Demonstration of different techniques related to:-Drug administration techniques-oral and parenteral.

Blood collection by orbital plexuses puncturing.

Techniques of anesthesia and euthanasia.

Information about different types of laboratory animals used in experimental research Drug identification as per API including organoleptic evaluation

**5 Pharmacology and toxicology**

Familiarization and demonstration of techniques related to pharmacology and toxicology

## 6 Biochemistry (Clinical)

Familiarization and demonstration of techniques related to basic instruments used in a clinical biochemistry laboratory – semi and fully automated clinical analyzers, electrolyte analyzer, ELISA-techniques, nephelometry.

Demonstration of blood sugar estimation, lipid profiles, kidney function test, liver function test.HbA1, cystatin and microalbumin estimation by nephelometry or other suitable techniques.

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

## 7 Clinical Pathology

Familiarization and demonstration of techniques related to basic and advanced instruments used in a basic clinical

pathology lab. Auto cell counter, urine analyzer, ESR, microscopic examination of urine.

## 8 Imaging Sciences

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

## 9 Clinical protocol development

## II. MEDICAL STATISTICS

### Practical hours:20

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

### Distribution of marks (practical):

1. Instrumental spotting test– 20 marks
2. Clinical protocol writing exercise on a given problem– 20 marks
3. Records:Research methodology -10 Mark
4. Medical statistics -10 marks
5. Viva- Voce -40 Marks

### REFERENCE BOOKS:-

#### Pharmacognosy:

1. Aushotosh Kar “Pharmacognosy & Pharmacobiotechnology” New Age International Publisher. Latest Edition. New Delhi.
2. Drug Survey by Mayaram Uniyal
3. Fahn A (1981). Plant Anatomy 3rd Edition Pergamon Press, Oxford
4. Kokate, CK., Purohit, AP, Gokhale, SB (2010). Pharmacognosy. Nirali Prakashan. Pune.
5. Kokate, CK., Khandelwal and Gokhale, SB (1996). Practical Pharmacognosy. Nirali Prakashan. Pune.
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8. Tyler VE Jr and Schwarting AE., Experimental Pharmacognosy, Burgess Pub. Co, Minneapolis, Minnesota.
9. Wallis- TE (2011)- reprint. Practical Pharmacognosy (Fourth Edition) Pharma Med Press,Hyderabad.
10. Wallis T E, Analytical Microscopy, J & A Churchill limited, London.
11. Wallis T E., Text Book of Pharmacognosy, J & A Churchill Limited, London.

12. WHO guidelines on good agricultural and collection practices- (GACP) for medicinal plants (2003). World Health Organization- Geneva.
13. WHO monographs on selected medicinal plants (1999)—Vol. 1. 1.Plants, Medicinal 2.Herbs 3.Traditional medicine. ISBN 92 4 154517 8. WHO Geneva.

**Pharmaceutical chemistry, quality control and drug standardization:**

1. Ayurvedic Pharmacopoeia of India. Part I- volume 1 to 8 and Part II- volume 1 to 3. Ministry of Health and Family Welfare. Controller of Publication. Govt of India. New Delhi.
2. Brain, KR and Turner, TD. (1975). The Practical Evaluation Phytopharmaceuticals. Wright Sciencetechnica, Bristol.
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4. Harborne, JB (1973). Phytochemistry Methods. Chapman and Hall, International Edition, London.
5. HPTLC- Fingerprint atlas of Ayurvedic Single Plant Drugs mentioned in Ayurvedic Pharmacopoeia Vol- III and IV. CENTRAL COUNCIL FOR RESEARCH IN AYURVEDA AND SIDDHA. New Delhi.
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7. Khopkar, S. M. Analytical Chemistry, New Age International Publishers , 3 rd edition
8. Laboratory Guide for- The Analysis of Ayurved and Siddha Formulations – CCRAS, New Delhi.
9. Mahadik KR, Bothara K G. Principles of Chromatography by, 1st edition, Nirali Prakashan.
10. Qadry JS and Qadry S Z., Text book of Inorganic Pharmaceutical and Medicinal Chemistry, B. S. Shah Prakashan, Ahmedabad.
11. Quality Control Methods for Medicinal Plant Material. Reprint (2002). WHO- Geneva.
12. Rangari V.D., Pharmacognosy & Phytochemistry, Vol I, II, Career Publication,
13. Sharma BK. Instrumental Methods of Chemical Analysis by, Goel Publishing House.
14. Srivastav VK and Shrivastav KK. Introduction to Chromatography (Theory and Practice)
15. Stahl E., Thin Layer Chromatography - A Laboratory Handbook, Springer Verlag, Berlin.
16. Sukhdev Swami Handa, Suman Preet Singh Khanuja, Gennaro Longo and Dev Dutt Rakesh (2008). Extraction Technologies for Medicinal and Aromatic Plants -INTERNATIONAL CENTRE FOR SCIENCE AND HIGH TECHNOLOGY- Trieste,

**Biochemistry and Laboratory techniques:**

1. Asokan P. (2003) Analytical Biochemistry, China publications,
2. Campbell, P.N and A.D .Smith, Biochemistry Illustrated, 4th ed, Churchill Livingstone.
3. David Frifelder. W. H. Freeman. (1982). Physical Biochemistry by; 2 edition
4. David Sultan (2003).Text book of Radiology and Imaging, Vol-1, 7th Edition.
5. Deb, A.C., Fundamentals of Biochemistry, Books and Allied (P) Ltd, 2002.
6. Harold Varley. Practical Clinical Bio-chemistry
7. Kanai L.Mukherjee. Clinical Pathology:,Medical Laboratory Technology Vol. I.Tata McGrawHill 1996, New Delhi.
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11. Zubay, G.L. Biochemistry, W.M.C. Brown Publishers, New York 1998.
12. Text book of Radiology and Imaging, Vol-1, David Sultan, 7th Edition. 2003.

**Research methodology:**

1. Alley, Michael. The craft of scientific writing. Englewood Cliffs. N.N. Prentice 1987.
2. Ayurvediya Anusandhan Paddhati – P.V. Sharma
3. Altick and Fenstermaker. ( 2007). *The Art of Literary Research*. 4th ed. W. W. Norton. Castle, Gregory. *Blackwell Guide to Literary Theory*. Blackwells,
4. Bowling, A. (2002). *Research Methods in Health* (2nd ed). Buckingham: Open University Press.
5. Day R.A. How to write a scientific paper. Cambridge University Press.
6. Cooray P.G. Guide to scientific and technical writing.
7. Deepika Chawla and Neena Sondhi. (2011). *Research Methods- Concepts and cases*. New Delhi: Vikas Publishing House.
8. Greenhalgh, T. (2006) *How to Read a Paper: The Basics of Evidence-Based Medicine*. (3rd ed) Blackwell
9. Kothari- CR (2004). *Research Methodology- Methods and Techniques* (Second Revised Edition). New Age International Publishers- New Delhi.
10. Kumar, R. 2005. *Research Methodology: a Step-by-Step Guide for Beginners, 2nd ed*. Thousand Oaks, CA, London: Sage Publications.
11. Petter Laake, Haakon Breien Benestad and Bjørn Reino Olsen. (2007). *Research Methodology in the Medical and Biological sciences*. Academic Press is an imprint of Elsevier, 84 Theobald's Road, London WC1X 8RR, UK. ISBN: 978-0-12-373874-5
12. Relevant portions of Ayurvedic Samhitas and other texts

**Drug research and development:**

1. RICK NG, (2009). *DRUGS- from discovery to approval*. John Wiley & Sons, Inc., Hoboken, New Jersey
2. Research guidelines for evaluating the safety and efficacy of herbal medicines. (1993). . WHO- (Regional Office for the Western Pacific – Manila) ISBN 92 9061 110 3 (NLM Classification: WB 925).
3. Jagdeesh, Sreekant Murthy, Gupta, YK and Amitabh Prakash Eds. *Biomedical Research (From Ideation to Publication)* (2010). Wolters Kluwer/ Lippincott Williams and Wilkins.
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5. *Natural products isolation*. (2006) 2nd ed. / edited by Satyajit D. Sarker, Zahid Latif, Alexander I. Gray. (Methods in biotechnology; 20). Includes bibliographical references and index. Humana Press Inc. ISBN 1-58829-447-1 (acid-free paper) – ISBN 1-59259-955-9 (eISBN)
6. Gazette Extraordinary Part- II-Section 3 - Sub section (i) December 2008. Govt of India. AYUSH Guidelines on safety studies- Rule 170 of Drugs and Cosmetics Act.
7. OECD (2000) *Guidance Document on Acute Oral Toxicity*. Environmental Health and Safety Monograph Series on Testing and Assessment No 24.
8. OECD Guideline for the Testing of Chemicals – Repeated Dose 90-day Oral Toxicity Study in Rodents, 408, 1998. <http://browse.oecdbookshop.org/oecd/pdfs/free/9740801e.pdf>(latest version)
9. OECD Series on Principles of Good Laboratory Practice (GLP) and Compliance Monitoring, 1998. [http://www.oecd.org/document/63/0,2340,en\\_2649\\_34381\\_2346175\\_1\\_1\\_1\\_1,00.php](http://www.oecd.org/document/63/0,2340,en_2649_34381_2346175_1_1_1_1,00.php)

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12. *Bombay.*
13. Jaju B.P.: Pharmacological Practical Exercise Book, *Jaypee Brothers, New Delhi*.
14. Kulkarni S.K.: Hand Book of Experimental Pharmacology, *Vallabh Prakashan, New Delhi*
15. Ravindran R.: X-Pharm (Software), Indian Journal of Pharmacology, *JIPMER, Pondicherry*.

#### **Biotechnology and Bio-informatics:**

1. Angela M. Meireles A (2009). Extracting Bioactive compounds for food products. Theory and applications. CRC- Press Taylor and Francis Group.
2. Bergeron BP 2002 Bioinformatics Computing 1st Edition, Prentice Hall
3. Chikhale, N.J. and Virendra Gomase, Bioinformatics- Theory and Practice, Publisher: Himalaya Publication House, India; 1 edition (July, 2007) ISBN-13: 978-81-8318-831-9
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5. Satyanarayana, U.: Biotechnology, Books and Allied (P) Ltd, Kolkata, 2005
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8. <http://www.zygogen.com>.
9. <http://www.dsr.nic.in/reports/tifp/database/metallo.pdf>.
10. [www.consort-statement.org](http://www.consort-statement.org)
11. [www.strobe-statement.org](http://www.strobe-statement.org)
12. [www.icmr.nic.in](http://www.icmr.nic.in)

#### **Clinical Evaluation:**

1. CDSCO, Good Clinical Practices For Clinical Research in India, Schedule Y (Amended Version – 2005), <http://cdsco.nic.in/html/GCPI.php>
2. Ethical Guidelines for Biomedical Research on Human subjects. (2000). Indian Council of Medical Research- New Delhi.
3. Gallo P., Chuang-Stein C., Dragalin V., Gaydos B., Krams M., Pinheiro J. Adaptive Designs in Clinical Drug Development—An Executive Summary of the PhRMA Working Group. *Journal of Biopharmaceutical Statistics*. 16: 275–283; 2006
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**9. William C. Scheffer Introduction to Clinical Researchs**

**Medical Statistics:**

1. Armitage, P. and Berry, G. (1994) *Statistical Methods in Medical Research* (3rd ed). Blackwell Science.
2. Armitage P, Berry G, Matthews JNS: *Statistical Methods in Medical Research*. Fourth edition. Oxford, Blackwell Science Ltd; 2002
3. Bland, M. (2000) *An Introduction to Medical Statistics* (3rd ed). Oxford: Oxford University Press.
4. Bradford Hill – *Basic Medical Statistics*
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12. Rick J Turner and Todd A Durham (2008). *Introduction to Statistics in Pharmaceutical Clinicaltrails*. Published by the Pharmaceutical Press- An imprint of RPS Publishing,1 Lambeth High Street, London SE1 7JN, UK
13. Symalan, K. (2006). *Statistics in Medicine (First Edition)* Trivandrum: Global Education Bureau.
14. Sundar Rao, Jesudian Richard - *An Introduction to Biostatistics*.
15. Suhas Kumar Shetty- *Medical statistics made easy*

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**PRELIMINARY**  
**PAPER-II**

**M.D. (AYU) SWASTHAVRITA (PREVENTIVE, SOCIAL MEDICINE & YOGA)**

**TEACHING HOURS 100 HOURS.**

**PRACTICAL 100 HOURS.**

**THEORY- 100 MARKS**

**PRACTICAL AND VIVA-VOCE - 100 MARKS**

**PART A (50 MARKS)**

1. Contribution of Swasthavrita in Community Medicine ( Public Health).
2. Comparison of Concept of Swastha according to various Ayurvedic Samhitas.
3. Applied aspect of Swasthya, based on various parameters described in Samhitas.
4. Details of definition and dimensions of health and parameters for its evaluation as per World Health Organization.
5. Relevance of Dinacharya, Ratricharya and Ritucharya in health promotion and prevention of diseases in modern day scenario and different occupations. (Importance of Niyat Kala Vihara-Dincharya,

Ratricharya and Ritucharya in prevention of diseases. )

6. Applied aspect of Adharaniya and Dharaniya Vega in health promotion and prevention of diseases with examples. (Importance of Aniyat Kala-Vegdharana, Vega Udirana, Shodhana, Brumhana, Bhutadyasparshana. )
7. Details of Ahara and Poshana as per Samhitas and its role in changing diet patterns of present era.
8. Nidra as per Ayurvedic classics. Effects of changing patterns of sleep on health.
9. Concept of Brahmacharya , Abrahmacharya and its relevance in present era.
10. Concept of Bala and Ojas in relation with Vyadhikshamatva .
11. Importance and relevance of Ritu Shodhana.
12. Role of Rasayana in promotion of health and prevention of diseases. Scope of Rasayana in Geriatrics and Reproductive & Child Health.
13. The concept of Ashtanga Yoga and its relation to health.
14. References about Yoga in Ayurvedic classics.
15. References about Ayurveda in Yoga classics.
16. The phenomenon of disease manifestation based on Adhi and Vyadhi as per Yoga Vashishtha and its relevance with Therapeutic Yoga.
17. Applied aspect of Pancha Mahabhutas in Nature Cure.

**Part B (50 MARKS)**

1. Janapadodhdhwamsa and measures of its prevention.
2. Principles of Epidemiology and its application.
3. Concept of disease control and stages of intervention.
4. Role of Swasthavritta and Yoga in prevention of communicable diseases.
5. Role of Swasthavritta and Yoga in prevention of non-communicable diseases.
6. Levels of disease prevention.
7. Kriya Kala and its importance in disease prevention.
8. Basic principles of Sankramaka Vikara - causes, modes of disease transmission, epidemiological triad.
9. Principles of Health Education and its role in community health maintenance and promotion.
10. Environmental health - concept of water, soil and air purification as per Ayurveda and Modern Science.
11. Newer threats to Environment – including plastic, e-waste, radiation and global warming.
12. Importance and relevance of Meteorology in Swasthavritta.
13. Role of Swasthavritta in Maternal and Child Health care.
14. Role of Swasthavritta and Yoga in Sports' Medicine.
15. National Population Policy, Importance of Family Planning Methods in National development. Ayurvedic methods of birth control (Yoga Ratnakara).
16. National Health Policy as per Alma Ata declaration.

**PRACTICAL**

1. Departmental duties
  - a. Duty in OPD and IPD with regard to Ayurveda Dinacharya, Ritucharya, Pathyapathya, Yoga and Nisargopachara.
  - b. Museum development- wall magazine / charts

c. Regular attendance in Yoga training in the Swasthya Rakshana and Yoga OPD.

2. Practice the following daily regimens

a. Pratimarsha Nasya

b. Anjana

c. Kavala and Gandusha

d. Abhyanga

e. Udvartana

f. Prayogika Dhoomapana

g. Matra Basti

3. Preparation of different Krittanna Kalpanas

a. Laja Manda

b. Mudga, Kulatha, Chanaka Yusha

c. Shali and Nartaki Peya

d. Shali, Dashamoola Yavagu

e. Shali Vilepi

f. Krishara

g. Nimbu Panaka

h. Payasa

i. Godhuma/Yava/Nartaki Roti

4. Health Awareness lectures to the community (mimimum 5)

5. Assessment of Swasthya (Mimimum 5 cases)

6. Participation in observance of National & International days related to health.

7. Practice of the following Asanas:

Yogic Shukshma and Sthula Vyayama. Standing Postures- Ardhakatichakrasana, Padahastasana, Ardhashchakrasana, Trikonasana Sitting Postures- Swastikasana, Siddhasana, Padmasana, Vajrasana, Bhadrasana, Gomukhasana, Shashankasana / Shashakasana, Ushtrasana, Paschimottanasana, Suptavajrasana, Ardhamatsyendrasana Supine Postures- Shavasana, Pavanmuktasana, Sarvangasana, Matsyasana, Halsana, Chakrasana, Prone Postures- Makarasana, Shalabhasana, Bhujangasana, Dhanurasana.

8. Practice of Pranayama.

9. Uccharit Pranava Pranayama (Om Chanting with Pranayama).

### **Distribution of marks (Practical)**

1. Records - 10 Marks

2. Preparation of Krittanna Kalpanas - 20 Marks

3. Dinacharya procedure - 10 Marks

4. Spotting (10) Aahar dravyas, - 20 Marks

Family Planning Devices, Vaccine/Serum and Models /Specimens, Naturopathic and yogic Specimens.

5. Yogasana and Pranayam - 10 Marks

6. Viva-voce - 30 Marks

### **Reference Books:**

## BVDU Faculty of Ayurved\_PG\_Swasthvrutta

- 1) Relevant portions of Charak, Sushruta, Vagbhata (Ashtang Hrudaya), Ashtang Samgraha, Sarangadhara, Bhavaprakasha, Madhavanidana & Yogaratnakara, Bhela Samhita with the respective commentaries
- 2) SwasthavruttaSamuchaya –VaidyaPtRajesvarDuttaShastri
- 3) SwasthyaVignyana -Dr.B.G.Ghanekarshastri
- 4) SwasthvruttaVigyan - Dr.Ramharsha Singh.
- 5) Swasthvrittam - Dr.BramhanandTripathi
- 6) AyurvediyaSwasthvrittam - Vd.Jalukar
- 7) SwasthaVigyan - Dr.MukundswaroopVerma
- 8) Swasthavrutta - Dr.Shivkumar Gaud
- 9) Swasthavrutta- Part-I & II- Vd. Mhaiskar, Vd.Vatve
- 10) Ayurvediya Hitopdesh - Vd.RanjitRai Desai
- 11) Preventive and Social Medicine - J.K.Park
- 12) Preventive and Social Medicine – Mahajan
- 13) Preventive and Social Medicine – B.N.Ghosh
- 14) Community Medicine - Baride and Kulkarni
- 15) Preventive and Social Medicine – Gupta 16) Patanjali Yoga Sutra – Maharshi Patanjali, Karambelkar
- 17) HathayogPradipika – SwatmaramYogendra 18) GherandSamhita- Gherand Muni
- 19) Shiva samhita – Kaivalyadhama
- 20) Yoga and Ayurveda - Dr.Rajkumar Jain
- 21) YogikYogPadhati - BharatiyaprakrutikChikitsaPadhat
- 22) YogikChikitsa - ShriKedarnath Gupta
- 23) SachitraYogasanDarshika - Dr.IndramohanJha
- 24) Yoga and Yogikchikitsa - Ramharsha Singh
- 25) The Foundation of Contempary Yoga - R.H.Singh
- 26) Yogadeepika - Shri. B.K.S. Iyengar
- 27) YogasidhantaevumSadhna - H.S.Datar
- 28) PrakritikaChikitsa -Kedarnath Gupta
- 29) PrakrutikChikitsaVigyan - Verma
- 30) PrakrutikChikitsaVidhi - Sharan Prasad
- 31) Light on Yoga, Light on Pranayama- Shri. B.K.S. Iyengar
- 32) Light on Patanjala yogasutra - Shri. B.K.S. Iyengar
- 33) Janasankhyashikshasidhanta evamUpadeysa - S.C.Seel
- 34) Health and Familywelfare - T.L.Devraj
- 35) Bio-Statistics - B.K. Mahajan
- 36) Swasthavrutta - Vd.Sakad
- 37) Reddy's Comprehensive Guide to Swasthavrutta –Dr.P.Sudhakar Reddy
- 38) Swasthavrutta – Vd Yeshwant Patil and Vd. Vhawal
- 39) Swasthavrutta – Vd. Patrikar Vijay
- 40) Dr.Me Kay Khau? \_Dr.M.S.Kulkarni
- 40) Swasthavruttavidnyan - Dr.MangalaGowri
- 41)Positive Health - Dr.L.P.Gupta
- 42)Biogenic Secretes of Food In Ayurveda - Dr.L.P.Gupta 43)Text book of Swasthavrutta - Dr.Ranade,

Dr.Bobade, Dr.Deshpande

44) Food and nutrition – Swaminathan

45) Yoga and Nisargopachar- Vd. Prama Joshi

46) Essence of Yoga - Dr.MangalaGowri

47) The essentials of Nature Cure - Dr.MangalaGowri

48) Yogasudha – Dr. Kashinath

**POST GRADUATE FINAL YEAR  
M.D. (AYU) SWASTHAVRITA**

**\* TEACHING HOURS FOR THEORY SHALL BE 100 HOURS PER PAPER.**

**\*\* TEACHING HOURS FOR PRACTICAL SHALL BE 200 HOURS.**

**PAPER I**

**MARKS 100**

**VAIYAKTIKA SWASTHAVRITAM SADVRITAM CHA(PERSONAL  
AND MORAL HYGIENE)**

1. Role of Swasthavritta in socio cultural, developmental and environmental aspects of health.
2. Study of indicators of health—mortality indicators, morbidity indicators, disability rates and nutritional status indicators.
3. Dinacharya – Detailed accounts by Charaka, Sushruta, Vagbhata and Bhavamishra.
4. Practical application of Dinacharya in today's era and probable physiological effect of these procedures.
5. Ratricharya – Bhavamishra and other classics.
6. Study of Day and night pattern in various countries and its relevances to the status of health.
7. Ritucharya – Classical description by Charaka, Sushruta, Vagbhata, Bhela Samhita and Bhavamishra.
8. Preventive & Promotive aspects of Ritucharya and its need and importance in present Era, Importance of Ritusandhi and Yamadamshttra.
9. Ritu Shodhana technique with reference to various Ritus, its method and mode of action in disease prevention.
10. Relevance of Vegadharana and Udirana in disease manifestation and Management.
11. Ahara – Classical food items described in Charaka, Sushruta, Vagbhata, Yogaratnakara and Sharngadhara.
12. Aharavargas and their comparison with today's food items.
13. Dietetics intervention in malnutrition, under nutrition and over nutrition as per Ayurveda and modern science.
14. Rules of Dietetics according to Charaka, Sushruta and Vagbhata.
15. Pros and Cons of vegetarian and non vegetarian foods.
16. Viruddhahara – Classical and modern day examples and its impact on health.
17. Knowledge about Assessment of nutritional status of individual and community.
18. Pathya Apathya in various diseases as per Ayurvedic classics viz. Jwara, Pandu, Raktapitta,

Gulma, Prameha, Hridroga, Shosha, Unmada, Apasmara, Kamala, Udara, Shwasa, Kasa, Hikka, Agnimandya, Ajirna, Atisara, Grahani, Amlapitta, Pravahika, Arsha, Kushtha, Mutrakrichchra, Ashmari, Vidradhi, Shotha, Visarpa, Vatavyadhi, Vatarakta, Shiro-Karna-Nasa- Mukha- Netra Roga.

19. Ayurvediya Ahara, Aushadha Kalpana in relation with nutraceuticals and nutrigenomics (Prakruti Anurup Ahara).
20. Food adulteration, methods for detecting, controlling food adulteration and its legislative control.
21. Role of Nidra, Brahmacharya, Abrahmacharya in maintenance of health and causation of diseases and their management.
22. Sadvrutta – Description of Charaka, Sushruta and Vagbhata. Clinical importance of Achar Rasayana, Nitya Rasayana and Sadvrutta in prevention of diseases & promotion of health
23. Rasayana -- its utility in health and disease condition.
24. Scope of Vajikarana in health. – Pathya Apathya Kalpana and Vihara for Vajikarana.
25. Role of Ayurveda in mental health.
  
26. Vyadhikshamatva – Ayurvedic, Modern concepts and its practical implementation.
27. Concept of genomics in relation with status of health.

**PAPER II**

**100 MARKS**

**SAMAJIKA SWASTHAVRITTAM(COMMUNITY HEALTH)**

1. Ayurvedic aspect of social health.
2. Vyadhi Sankarya as a causative factor of a Vyadhi. Web of causation of diseases, multifactorial causation.
3. Natural history of diseases. ICD- International Classification of Diseases.
4. Ecology and community health. Impact of bio-geo-chemical cycle (impact of changing global nitrogen cycle on human health)
5. Environment and community health (Bhumi, Jala, Vayu their Shuddhikarana and Prakasha, Shabda, Vikirana)
6. Disinfection practices for the community – Ayurvedic and Modern .
7. Immunization programmes. Possible contribution of Ayurveda. E.g. Suvarnaprashana, Karnapalibhedana etc.
8. Housing Standards. Description of Aaturalaya(hospital), Sutikagara, Kumaragara, Panchakarmagara and Mahanasa (Kitchen)
9. Disposal of Wastes- refuse, sewage. Methods of excreta disposal in sewerred andunsewerred areas. Disposal of dead body.
10. Management of biomedical waste. Biomedical waste act- 1998, 2016.
11. Occupational Health. Role of Ayurveda in Occupational health, in ESI and other Government sectors.
12. Medical Entomology– Arthropods of medical importance and their control measures.
13. Medical parasitology and control in relation to communicable diseases.
14. School Health Services and possible contribution of Ayurveda.
15. Demography and Family Planning. Recent developments in family planning measuresand contribution of Ayurveda.
16. Family Welfare Programme and the role of Ayurveda in it.
17. Old age problems in community. Role of Swasthavrutta in Geriatric care.
18. Role of Ayurveda in palliative, rehabilitative and convalasence care.
19. Life Style disorders and Non Communicable diseases in community and the role of Ayurveda in them.

20. Medical Sociology.- adolescent health, social and behavioral problems, its policy for prevention and control, public relation, doctor patient relationship and hospital sociology.

**PAPER III**

**100 MARKS**

**SAMKRAMAKA ROGA PRATISHEDHAM EVAM SWASTHYA PRASHASANAM  
(EPIDEMIOLOGY AND HEALTH ADMINISTRATION)**

1. Modern Concept of Epidemiology
2. Critical evaluation of Janapadodhdhwamsa.
3. Clinical epidemiology of different communicable diseases, re- emerging and newer diseases and the role of Ayurveda in them.
4. Investigations for communicable diseases
5. Sexually Transmitted Diseases and their control
6. Ayurvedic view of Samkramaka Rogas.
7. Investigation and control of an Epidemic and probable role of Ayurveda in it.
8. Host Defenses.
9. Notifiable diseases and procedure for notification and other formalities.
10. Ayurvedic concept of health maintenance for travelers.
11. Nosocomial infection, iatrogenic diseases, opportunistic infection, isolation ward and its Ayurvedic perspective.
12. AYUSH- aims, objectives, structure, function and health policies.
13. National Health Programmes and possible contribution of Ayurveda in them.
14. Health administration in India.
15. National Health Mission, National AYUSH Mission, administration, functions and programmes. Swachha Bharat Abhiyana.
16. National and International Health Agencies and their activities.
17. Disaster management
18. Statistics related with Infectious diseases at International, National and State levels.
19. Vital Statistics.

**PAPER IV**

**100 MARKS**

**YOGA EVAM NISARGOPACHARA(YOGA AND NATURE  
CURE)**

1. History and evolution of Yoga
2. Nirukti and definitions of yoga
3. Rajayoga – (Ashtanga yoga) philosophy of Patanjali according to Yogasutras.
4. Hathayoga - according to Hatha Pradipika, Gheranda Samhita and Shiva Samhita.
5. Karmayoga – Philosophy according to Bhagavad Gita
6. Mantrayoga, Layayoga, Jnanayoga and Bhaktiyoga.
7. Concept of Sthula, Sukshma and Karana Shariras
8. Concept of Panchakoshas
9. Concept of Shat Chakras, Nadis and Kundalini. Signs of Nadishuddhi.
10. Physiological effect of Yoga on Body and mind – ancient and modern concepts.
11. Suryanamaskara and its effect on health.
12. Shat Kriyas and its physiological their therapeutic effects.
13. Therapeutic effect of Yogic practice in the following diseases - Diabetes, Hypertension, Cardiovascular disorders, Obesity, Asthma, Irritable Bowel Syndrome, Eczema, Psoriasis, Stress Disorders, Eye disorders, Headache, Juvenile Delinquency, Mental Retardation, Depression, Neurosis, Sexual Dysfunction, Gynecological, Uterine Disorders, Cancer,

Addiction.

14. Utility of Yoga in Rehabilitation and the usage of props..
15. Yoga in Ayurveda –Concept of Moksha, Tools for Moksha, Naishthiki chikitsa, TattvaSmriti, Satyabudhhi, YoginamBalamAishwaram, Mukta Atmalaxana (Charaka Samhita Sharirasthana chapter 1 & 5)
16. History of Nisargopachara.
17. Basic Principles of Indian School of Nature Cure – Panchabhuta Upasana and its therapeutic effects and utility.
18. Basic Principles of Western School of Nature Cure.
19. Different types of Mud therapy, Hydro therapy, Helio therapy and Chromo therapy Massage and excise therapy, fasting and relaxation therapy and their therapeutic effectsand utility.



**SCHEME OF PRACTICALSDURATION: - 02 YEARS**

1. Health promotive and protective practices of Dinacharya procedures viz. Dantadhavana, Anjana, Nasya, Kavala, Gandusha, Dhumapana, Abhyanga, Udvartana

**2) Practical Demonstration of Yoga**

a) Sukshma and Sthula Vyayama

b) Suryanamaskara

c) Aasanas :

**Sitting Position**

1. Padmasana
2. Swastikasana
3. Siddhasana
4. Bhadrasana
5. Gomukhasana
6. Vajrasana
7. Suptavajrasana
8. Simhasana
9. Paschimottanasana
10. Ardhamasytendrasana
11. Ushtrasana

**Supine position:**

1. Shavasana
2. Uttananpadasana
3. Sarvangasana
4. Halasana
5. Karnapidanasana
6. Naukasana
7. Matsyasana
8. Setubandhasana
9. Prone position:
10. Makarasana
11. Niralmbasana
12. Shalabhasana
13. Bhujangasana
14. Dhanurasana
15. Mayurasana

**Standing position:**

1. Tadasana
2. Utkatasana
3. Vrikshasana
4. Ardhakaticharasana
5. Trikonasana
6. natarajasana

**d) Mudra**

- 1) Viparita karani
- 2) Yoga Mudra
- 3) Shanmukhi Mudra
- 4) Brahma Mudra
- 5) Ashwini mudra

**e) Bandha**

- 1) Jalandhara, Uddiyana, Mula Bandha

**f) Shuddhikriya** – Jala Neti, Sutra Neti, Jala Dhauti, Trataka, Shankhprakashalana, Kapalbhathi- Vyutkrama and Shitkrama Kapalbhathi, Nauli.

**g) Pranayama**

Nadishudhhi- Anulom Vilom Pranayama,

**h) Kumbhaka Bhedas**

- 1) Suryabhedana
- 2) Ujjayi,
- 3) Bhastrika,
- 4) Bhramari
- 5) Sheetali
- 6) Sitkari

**i) Dhyana**

**Practical Demonstration of Naturopathy procedures**

- a. Mruttika Snana (Mud Bath)
- b. Mruttika Patti (Mud Pack)
- c. Pada and Hasta Snana (Foot and Arm bath)
- d. Bashpasnana (Steam bath)
- e. Avagahana (Immersion bath)
- f. Prishthasnana (Spinal bath)
- g. Katisnana (Hip bath)
- h. Alternate hot and cold bath
- i. Water packs
- j. Deferent massage techniques
- k. Sun Bath techniques
- l. Relaxation techniques – QRT (Quick Relaxation Technique), IRT (Instant Relaxation Technique), DRT (Deep Relaxation Technique).

**3) Long case sheets for Pathya, Apathya, Yoga and Nisargopachara advice to**

- a) Non communicable diseases 10

**(Proforma attached as Annexure ‘A’/ ‘E’)**

- b) Communicable diseases 10

**(Proforma attached as Annexure ‘B’)**

- c) Garbhini Paricharya 10

**(Proforma attached as Annexure ‘C’ d) Mal**

**Nutrition treatment cases 10 (Proforma attached as Annexure ‘D’)**

**Departmental Practicals**

- 1) Danta dhavana
- 2) Anjana
- 3) Nasya
- 4) Gandusha
- 5) Kavala
- 6) Dhoompana – Dhumavarti Nirmana

**6) Educational Visits-**

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

- 1) Water Purification Centre
- 2) Milk Dairy
- 3) Industry
- 4) Leprosy Centre
- 5) T.B. Centre
- 6) Yoga Centre
- 7) Naturopathy Centre
- 8) Primary Health Center
- 9) Disposal of Waste Unit

- 10) Sewage Disposal Unit
- 11) Psychiatric Hospital
- 12) Isolation Hospital
- 13) A.R.T. Centre
- 14) Food and Drug Administration Centre
- 15) District /Civil Hospital

**7) Field Work**

- a) Community Health Survey (Minimum 10 forms) –  
**(Proforma attached as Annexure ‘F’)**
- b) School Health Check-up (Minimum 10 forms)

**8. Departmental duties : Regular Attendance as-**

1. Duty in OPD and IPD
  2. Museum Development
  3. Yoga training for Self, Swastha and patients.
  4. Departmental Seminars
  5. Research Journal /Article Reviews( Minimum 2)
  6. Submit minimum 2 papers in any publications.
  7. Micro Teaching (Training to take Lectures and Practicals of UG). Minimum 10.
  8. Health Awareness talk for public.
  9. Daily diary- Log book
- 

**Annexure ‘A’**

**PROFORMA**

**(Non - Communicable Disease case)A]**

**General Information :**

1. Name of the Patient: \_\_\_\_\_
2. Age : \_\_\_\_\_ yrs. 3. Sex : Male/Female 4. Religion : \_\_\_\_\_
5. Date of Admission : \_\_\_\_\_
6. Address : \_\_\_\_\_
7. Occupation : \_\_\_\_\_ 8. Education : \_\_\_\_\_
9. Per Capita income : \_\_\_\_\_ Rupees.
10. Socio economic class (Modified \_\_\_\_\_)

**B] Present illness:**

Chief complaints (chronological order) : \_\_\_\_\_

**C] History of past illness :**

1. Similar complaints in past : \_\_\_\_\_
2. Any other significant history : \_\_\_\_\_

**D] History of illness in Family :**

1. Type : \_\_\_\_\_ 2. Composition : \_\_\_\_\_
3. Similar illness in family : Yes /No If yes, give details : \_\_\_\_\_

**E] Life Style and personal history :**

1. Occupation : Manual Work /Table Work/ Field Work/ Administration /Any other (Specify)
2. Muscular exertion (occupational / domestic etc.) Minimum / Moderate /Heavy
3. Exercise: Nil / Walking / Running / Jogging/ Cycling / Swimming / Weight Lifting/ Anyother specify \_\_\_\_\_
4. Mental Stress &Strain : Occupational/ domestic/ any other specify \_\_\_\_\_
5. Hobby , Recreation : \_\_\_\_\_
6. Diet :
  - a. Veg / Non Veg / Mixed

b. Total calorie intake \_\_\_\_\_calorie /day

adequate / inadequate/ excess

c. Fat :

adequate / inadequate/ excess

Vegetable / Animal fats

Predominantly saturated / unsaturated

d. Spice & Hot foods (Specify)

e. Regularity in taking meals

f. Type of diet : balanced / Non balanced (Give reason)

7. Sleep and rest : adequate / inadequate

8. Habits & addictions

Smoking : Yes / No /Past Smoker

If yes : Type /duration /quantity/ frequency. \_\_\_\_\_

Alcohol : Yes / No /Past Alcoholic

If yes : Type /duration /quantity/ frequency. \_\_\_\_\_

Any Other : Specify, give details. \_\_\_\_\_

**F] General Examinations :** \_\_\_\_\_

**G] Systemic Examination :** \_\_\_\_\_

RS/ CVS/CNS/PA : \_\_\_\_\_

**H] Diagnosis :**

i. Provisional : \_\_\_\_\_

ii. Differential : \_\_\_\_\_

**I] Investigations :**

Investigation done : \_\_\_\_\_

Any further investigations required : \_\_\_\_\_

**J] Final Diagnosis :** \_\_\_\_\_

**K] Management :** \_\_\_\_\_

Drug therapy (give details) : \_\_\_\_\_

Diet modification : \_\_\_\_\_

Health Education / Life Style modification : \_\_\_\_\_

Follow up : \_\_\_\_\_

**L] Prevention & Control Measures**

Primary Prevention : \_\_\_\_\_

Secondary Prevention : \_\_\_\_\_

Tertiary Prevention : \_\_\_\_\_

Sign.of Student

Sign. of Guide

**Date :-**

Annexure 'B'

**PROFORMA**

(Communicable Disease case)A]

**General Information :**

1. Name of the Patient : \_\_\_\_\_
2. Age : \_\_\_\_\_ yrs. 3. Sex : Male / Female
4. Date of Examination : \_\_\_\_\_
5. Address : : \_\_\_\_\_
6. Locality : Urban – Slum / Non-Slum /Rural/Other (Specify) \_\_\_\_\_
- 7 Duration of Stay in the Locality ; \_\_\_\_\_(years/months)
8. Hospital Registration No. : \_\_\_\_\_ 9. Date of Admission : \_\_\_\_\_
10. Religion / Caste : \_\_\_\_\_ 11. Education : \_\_\_\_\_
12. Occupation : \_\_\_\_\_ 13. Type of Family : \_\_\_\_\_
14. Total No. of Family Members : \_\_\_\_\_ 15. Total Family income: \_\_\_\_\_
16. Per Capita income per month : \_\_\_\_\_ Rs.
17. Socio-economic Status (As per \_\_\_\_\_ classification) : \_\_\_\_\_

**B] Chief Complaints (In Chronological order)**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**C] H/O Present illness :** \_\_\_\_\_

**D] H/O Past illness :** \_\_\_\_\_

i. Similar complaints in past : \_\_\_\_\_

ii. Any other significant history : \_\_\_\_\_

**E] History of illness in the family :** \_\_\_\_\_

**F] Personal History**

a. Dietary : \_\_\_\_\_

b. Immunization : \_\_\_\_\_

c. Habits : \_\_\_\_\_

**G] Environmental history (Pertinent to the route of transmission)**

- i] Water Supply ii] Excreta Disposal iii] Drainage iv] Cattle  
v] Pet animals, Poultry vi] Housing condition vii] Over Crowdingviii]  
insect nuisance ix] Courtyard of house etc.

**H] Epidemiological information (Backward tracing of index case.)**

i. Any similar case in the family / neighborhood / School / Place of recreation / any other

Specify. \_\_\_\_\_

ii. History of attending to similar case – if yes, when ? \_\_\_\_\_

iii. History of visiting any unaccustomed place if yes, When ? \_\_\_\_\_

iv. Total contacts \_\_\_\_\_ v. High risk contacts. \_\_\_\_\_

**I] Provisional Diagnosis ( with justification in brief)** \_\_\_\_\_

**J] Differential Diagnosis :** \_\_\_\_\_

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**K] Investigation Done :**

\_\_\_\_\_

a. If yes, reports & your comments. \_\_\_\_\_

**b.** Other investigations required (with reason) if any. \_\_\_\_\_

**L] Final Diagnosis :** \_\_\_\_\_

**M] Management of Patients :**

1 Chemotherapy / Other drugs (Specify with name, dose schedule, route of administration, duration of treatments and precautions if any) \_\_\_\_\_

2. Diet modification \_\_\_\_\_

3. Personal Hygiene \_\_\_\_\_

4. Health Education \_\_\_\_\_

5. Any other (Specify) \_\_\_\_\_

6. Follow up : \_\_\_\_\_

**N] Preventive & Control Measures at**

a. Family Level

i. Chemoprophylaxis \_\_\_\_\_

ii. Immunization (Active / Passive) \_\_\_\_\_

iii. Personal Hygiene (specify) \_\_\_\_\_

iv. Chemical disinfections of (Specify) \_\_\_\_\_

concentration, quantity, technique, contact period, way of disposal of disinfected material

v. Follow up \_\_\_\_\_

vi. Care of Contacts \_\_\_\_\_

b. Community Level

i. General Intervention measures \_\_\_\_\_

ii. Specific measures against the illness \_\_\_\_\_

iii. Any other (Specify) \_\_\_\_\_

c. National Level \_\_\_\_\_

National Health Programme for control / Eradication of the disease or related health programmes.

Sign.of Student

Sign. of Guide

**Date :-**

Annexure 'C'

**PROFORMA**

(Ante-natal case)

**A] General Information :**

- 1) Date of Examination : \_\_\_\_\_
- 2) Name : \_\_\_\_\_
- 3) Age : \_\_\_\_\_ yrs.
- 4) ANC Registered : Yes/No If yes, place/date/month of registration \_\_\_\_\_
- 5) Education of pt \_\_\_\_\_ Occupation of pt \_\_\_\_\_
- 6) Education of Husband \_\_\_\_\_ Occupation of Husband \_\_\_\_\_
- 7) No of family members \_\_\_\_\_ Total family income \_\_\_\_\_ Rs/month
- 8) Socio-economic class \_\_\_\_\_ (as per Modified \_\_\_\_\_ classification)
- 9) Address : \_\_\_\_\_

**B] Complaints – if any:** \_\_\_\_\_

**C] Menstrual History :** Menarche, cycles-day/month, regularity, flow etc.

L. M. P \_\_\_\_\_ E.D.D. \_\_\_\_\_

**D] Obstetric History :**

**Gestational**

- Age (wks)
- Type of
- Delivery
- Hosp./ Home
- Conducted
- By
- Baby alive/stillborn/ abortion
- Live birth interval
- Use of contraceptives(specify)1.
- 2.

**E] Family History :**

\_\_\_\_\_

**F] Past History :** Hypertension/ Diabetes/ S.T.D./T.B./Leprosy etc.

**G] Personal History :** Bowel/Bladder/Sleep/Appetite/Habits/Addictions etc.

Immunization status : Tetanus toxoid / Any other ( specify)

a) For current pregnancy

\_\_\_\_\_

b) For previous pregnancy

\_\_\_\_\_

Nutritional status (based on Calorie Intake, other nutrients, anthropometry etc.)

**H] General Examination :**

- Height \_\_\_\_\_ Cms./ Wt. \_\_\_\_\_ kgs, / TPR / B.P \_\_\_\_\_ mm of Hg
- Pallor/Icterus/ Cyanosis/Oedema/ Lyphadenopathy. any other ( specify)
- Cleanliness of : Skin /Nails/Hair/Clothes/Eyes/Ears/Nose/Oral Cavity / breasts & Nipples etc.

**I] P/A Examination:**

- Ht. of uterus/presentation and lie of foetus /Head-floating or engaged/foetal movements/FHS/ Any other (specify) \_\_\_\_\_

**J] Systemic Examination:**

RS/ CVS/CNS \_\_\_\_\_

- K] Investigations:** - Urine: Albumin/sugar/microscopic/culture.  
- Hb % Blood grouping & cross matching/VDRL/HIV/Blood Sugar  
- Any other ( specify) \_\_\_\_\_

**L] Clinical impression :**

- Whether high risk ? If yes, mention the risk factors. \_\_\_\_\_

**M] Advice to the Patient and Management :**

- Immunization/Diet/Supplementary nutrition/personal hygiene/preparation for motherhood/ drugs given (if any) / Warning signals/fallow up visits
- Whether the patient/ family members are availing services from Anganwadi / Other Community Health Centre /Private Health Agency? If yes – Give details.
- Give details of referral in high risk cases. \_\_\_\_\_

**N] Follow up :**

Findings & Remarks (including advice) \_\_\_\_\_

During subsequent visits (mention the date of visits) \_\_\_\_\_

**O) Comments :**

\_\_\_\_\_  
\_\_\_\_\_

Sign.of Student

Sign. of Guide

**Date :-**



Annexure 'D'

**PROFORMA**

**MALNUTRITION CASE ( UNDER FIVE YEARS AGE )**

**A] General Information :**

- i..Date of Examination : \_\_\_\_\_
- ii.. Name of the informer & his/her relationship with the child (case)
1. Name of the child : \_\_\_\_\_
  2. Date of birth : \_\_\_\_\_ 3.Age : \_\_\_\_\_ 4.Sex : Male/Female
  5. Caste /Religion : \_\_\_\_\_
  6. Address : \_\_\_\_\_
  7. Whether the child is attending Balwadi/Nursery etc. : \_\_\_\_\_
  8. Father \_\_\_\_\_ Mother \_\_\_\_\_
  - I. Name : \_\_\_\_\_
  - II. Age : \_\_\_\_\_
  - III. Education : \_\_\_\_\_
  - IV. Occupation : \_\_\_\_\_
  - V. Income : \_\_\_\_\_
  9. I Total number of family members and family composition \_\_\_\_\_
  - II. Total family income \_\_\_\_\_ Rupees per month
  - III. Per Capita Income \_\_\_\_\_ Rupees per month
  - IV. Socio economic Status \_\_\_\_\_ as per \_\_\_\_\_ classification

**B] Complaints (if any) :** \_\_\_\_\_

**C] History of Present illness :** \_\_\_\_\_

**D] History of Past illness (if any) :** \_\_\_\_\_

**E] Family history :** \_\_\_\_\_

**F] Birth history of the case :** \_\_\_\_\_

- i. Place of delivery : Home/ Hospital /Other (Specify) \_\_\_\_\_
- ii. Delivery conducted by : Untrained or trained Dai / Nurse / Doctor etc. \_\_\_\_\_
- iii. Type of delivery : FTND/ Pre mature/SFD/Assisted delivery etc. \_\_\_\_\_
- iv. Congenital anomaly : if any give details. \_\_\_\_\_

**G] Anthropometry**

- i. Weight : \_\_\_\_\_ Kgs. ii. Height \_\_\_\_\_ Cms.
- iii. Chest Circumference \_\_\_\_\_ Cms. Iv. Head Circumference \_\_\_\_\_ Cms
- iv. Mid arm Circumference \_\_\_\_\_ Cms.

**H] Immunization History**

- i. B.C.G./ OPV/ DPT/Measles/Any other give details \_\_\_\_\_
- ii. Immunization card available : Yes / No.

**I] Dietary History**

- i. Breast feeding : Yes/ No
  - a. If yes : Only breast feed or weaning started
  - b. If weaned : Age at weaning, type of weaning foods etc.
  - c. If not breast feed : At what age breast feeding stopped? (give reason if any)
- ii. a. Total calorie intake \_\_\_\_\_ Calorie /day
- b. Total Protein intake \_\_\_\_\_ gram/day
- iii. Calorie / Protein deficient if any : Yes/No.
- If yes mention percent of deficient \_\_\_\_\_
- iv. Any other nutritional deficiency (Specify) \_\_\_\_\_

**J] General Examination :**

- 1) Built, nourishment & general appearance
- 2) TPR 3) Pallor 4) Icterus 5) Cyanosis 6) Lymphadenopathy
- 7) Oedema 8) Dehydration 9) Eyes 10) Ears
- 11) Face, Nose, Lips & Tongue 12) Teeth gums oral cavity 13) Skin, nails hair
- 14) Rachitic changes. 15) Any other (specify)

**K] Systemic Examination :RS/CVS/PA/CNS/Gonads**

**L] Milestones of growth & development**

Physical / Psychological/ Motor / intellectual / behavioral/ Social  
Milestones : Normal/ Augmented / Delayed

**M] Provisional diagnosis / Differential Diagnosis :**

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**N] Investigations :**

---

**O] Diagnosis :** \_\_\_\_\_

**P] Management, Advise and Comments :** \_\_\_\_\_

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Sign.

**Date :-**

Annexure 'E'

**PROFORMA**

*PathyaApathya, RutuShodhan, Yoga &Nisargopachar Advice to Patients of Attached Hospital.*

**A) General Information :-**

- 1) Sr. No. : \_\_\_\_\_
- 2) Name of the Patient : \_\_\_\_\_
- 3) Address : \_\_\_\_\_
- 4) OPD No. : \_\_\_\_\_ IPD NO. \_\_\_\_\_
- 5) Diagnosis : \_\_\_\_\_
- 6) Date of Advice : \_\_\_\_\_

**B) Advice given**

**a) Pathya - Apathya**

- i. Ahar : \_\_\_\_\_
- ii. Vihar : \_\_\_\_\_

**b) RutuShodhanUpakrama :**

\_\_\_\_\_

**c) Yogopachar:** \_\_\_\_\_

**d) Nisargopachar:** \_\_\_\_\_

**C) Date of follow up :** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**D) Remarks:** \_\_\_\_\_

\_\_\_\_\_

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Sign. of

**Date :-**

\_\_\_\_\_

**ANNEXURE 'F'**

**HEALTH SURVEY**

Name and address of the family head-

Telephone no.

**Family profile**

Family Structure

Age(in completed years)	Male	Female	Total
<1 yr(infants)			
1-5yrs			
6-15yrs			
16-64yrs			
>65 yrs			

Family Composition

Family type: Nuclear/Joint/Three generation

Total members:

Sr.no	Name	Age in years	Sex	Marital status	Education	Occupation	Income	Medico social status

Immunization status (if relevant)

Per capita monthly income=Total family income/no. of members

**Socioeconomic Class**

**Medico Social Status**

Infant Children under 5yrs Pregnancy Lactation Old age	Leprosy HIV/STD Cancer Diabetes BP/Cardiac problem	Disability Mental retardation Psychiatric problem Alcohol addition Social evils
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**Living Conditions (Housing)**

Sr.No.	Housing standards	Score :1 for satisfactory criteria 0 for poor criteria
1.	<b>Construction</b> :Locality, Safety ,Protection	
2	<b>Space</b> :Spatial sufficiency to prevent overcrowding	
3.	<b>Light and Ventilation</b>	
4.	<b>Water</b> :Adequacy ,accessibility and safe storage of water	
5.	<b>Sanitation</b> : Washing, bathing, toilet facilities, sanitary disposal of kitchen waste ,garbage and excreta	
6.	<b>Kitchen</b> :Facilities for hygienic cooking and storage of food,smoke outlet	
7.	<b>Environment Disturbances</b> : Noise, air pollution ,weather Inclemency toxic fumes, dust ,odour ,moisture, open drainetc. <b>Vector</b> like fly ,mosquito ,rodent and other nuisance	
8.	<b>Animals</b> : Pet, cattle, poultry keeping	
9.	<b>Cleanliness</b> of persons and premises	
10.	<b>Connectivity</b> :Road ,transportation ,communication, schools, hospital cultural ,social, recreational ,fire, police ,etc	

Assessment of living condition: Score: 6-10 Satisfactory, 0-5 Poor

**Vital Events in the Family in last 1 year**

Birth:

Adoption:

Marriage/Divorce:

Death with cause:

**Social status of the Family**

**Education:**

**Occupation:**

**Living condition:**

**Social relationship:**

**Socioeconomic status:**

**Health Status of the Family** - Good/Average/Poor

**Which pathy family members prefer for treatment-** Allopathy/Ayurvedic/Homeopathy

### Epidemiological History for Communicable Diseases

- 1 .Name of disease:
- 2 .Any similar case in the family: Yes/No
3. Any similar case in neighborhood: Yes/No
4. Any contact with similar case: Yes/No

### Family (Hereditary) History For Non-communicable DiseasesNon-communicable disease: Present/Absent

If yes, specify:

### SIGN OF STUDENT SIGN OF GUIDE

### Format of Practical / Oral Examination

Sr. No.	Heading of Practicals	Marks
1	Daily work book-Log book	10
2	Case Record Sheets	20
3	One Long Case ( Pathya-Apathya advice)	20
4	One Short Case (Yoga and naturopathy advice )	10
5	Yoga Demonstration	20
6	Microteaching/Topic presentation	10
7	Thesis Presentation	50
8	Viva Voce	60
	<b>Total</b>	200

### Reference Books

- 1) Relevant portions of Charak, Sushruta, Vagbhata (AshtangHrudaya), Ashtang Samgraha, Sarangadhara, Bhavaprakasha, Madhavanidan&Yogaratanakara, Bhela Samhita with the respective commentaries
- 2) SwasthavrittaSamuchaya –VaidyaPtRajesvarDuttaShastri
- 3) SwasthyaVignyana -Dr.B.G.Ghanekarshastri
- 4) SwasthavrittaVigyan - Dr.Ramharsha Singh.
- 5) Swasthrittam - Dr.BramhanandTripathi
- 6) AyurvediyaSwasthrittam - Vd.Jalukar
- 7) SwasthaVigyan - Dr.MukundswaroopVerma
- 8) Swasthavritta - Dr.Shivkumar Gaud
- 9) Swasthavritta- Part-I & II- Vd. Mhaiskar, Vd.Vatve
- 10) Ayurvediya Hitopdesh - Vd.RanjitRai Desai
- 11) Preventive and Social Medicine - J.K.Park
- 12) Preventive and Social Medicine – Mahajan
- 13) Preventive and Social Medicine – B.N.Ghosh

14) Community Medicine - Baride and Kulkarni



- 15) Preventive and Social Medicine – Gupta
- 16) Patanjali Yoga Sutra – Maharshi Patanjali, Karambelkar
- 17) HathaPradipika – Swatmaram Yogendra
- 18) GherandSamhita- Gherand Muni
- 19) Shiva samhita – Kaivalyadhama
- 20) Yoga and Ayurveda - Dr.Rajkumar Jain
- 21) YogikYogPadhati - BharatiyaprakrutikChikitsaPadhat
- 22) YogikChikitsa - ShriKedarnath Gupta
- 23) SachitraYogasanDarshika - Dr.IndramohanJha
- 24) Yoga and Yogikchikitsa - Ramharsha Singh
- 25) The Foundation of Contemporary Yoga - R.H.Singh
- 26) Yogadeepika - Shri. B.K.S. Iyengar
- 27) YogasidhantaevumSadhna - H.S.Datar
- 28) PrakritikaChikitsa -Kedarnath Gupta
- 29) PrakrutikChikitsaVigyan - Verma
- 30) PrakrutikChikitsaVidhi - Sharan Prasad
- 31) Light on Yoga, Light on Pranayama- Shri. B.K.S. Iyengar
- 32) Light on Patanjala yogasutra - Shri. B.K.S. Iyengar
- 33) Janasankhyashikshasidhanta evamUpadeysa - S.C.Seel
- 34) Health and Familywelfare - T.L.Devraj
- 35) Bio-Statistics - B.K. Mahajan
- 36) Swasthavritta - Vd.Sakad
- 37) Reddy's Comprehensive Guide to Swasthavritta –Dr.P.Sudhakar Reddy
- 38) Swasthavritta – Vd Yeshwant Patil and Vd. Vhawal
- 39) Swasthavritta – Vd. Patrikar Vijay
- 40) Swasthavrittavidnyan -  
Dr.MangalaGowri41)Positive Health  
- Dr.L.P.Gupta
- 42) Biogenic Secretes of Food In Ayurveda - Dr.L.P.Gupta
- 43) Text book of Swasthavritta - Dr.Ranade, Dr.Bobade, Dr.Deshpande
- 44) Food and nutrition – Swaminathan
- 45) Yoga and Nisargopachar- Vd. Prama Joshi
- 46) Yogic sukshmavyayam –Swami Dheerendra Brahmachari
- 47) Integrated approach of Yoga therapy for Positive Health-Dr R Nagarathna  
and DrH.R.Nagendra
- 48) Yogavasistha

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