CENTRAL COUNCIL OF INDIAN MEDICINE
NEW DELHI

SYLLABUS FOR POST – GRADUATE COURSE IN AYURVED

Preliminary Examination	
I. **RESEARCH METHODOLOGY AND BIOSTATISTICS**	2-10
II. CONCERN SUBJECT :-	
1. AYURVED SAMHITA & SIDDHANTA	11-12
2. RACHANA SHARIR	13-14
3. KRIYA SHARIR	15-17
4. DRAVYAGUNA VIGYAN	18-20
5. RASA SHASTRA & BHAISHAJYA KALPANA	21-24
6. AGADA TANTRA EVUM VIDHI VAIDYAKA	25-27
7. SWASTHAVRITTA	28-30
8. ROGANIDAN EVUM VIKRITI VIGYAN	31-32
9. CHHAYA EVUM VIKIRAN VIGYAN	33-35
10. KAYACHIKITSA	36-37
11. MANOVIGYAN EVUM MANASROGA	38-40
12. RASAYAN & VAJIKARAN	41-42
13. PANCHKARMA	43-44
14. PRASUTI EVUM STRI ROGA	45-46
15. KAUMARBHRITYA-BALA ROGA	47-48
16. SHALYA -SAMANYA	49-51
17. SHALYA - KSHAR EVUM ANUSHASTRA KARMA	52-54
18. ASTHI SANDHI AND MARMAGAT ROGA	55-57
19. SANGYAHARAN	58-59
20. SHALAKYA - NETRA ROGA	60-61
21. SHALAKYA – DANTA EVUM MUKHA ROGA	62-63
22. SHALAKYA- SHIRO-NASA-KARNA EVUM KANTHA ROGA	64-65

1st year MD (RNVV)

PAPER-I
RESEARCH METHODOLOGY AND MEDICAL STATISTICS

PART-A
RESEARCH METHODOLOGY

Introduction to Research

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

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.

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

Classical Methods of Research.

Concept of Pratyakshadi Pramana Pariksha, their types and application for Research in Ayurveda.
Dravya-, Guna-, Karma-Parikshana Paddhati
Aushadhi-yog Parikshana Paddhati
Swastha, Atura Pariksha Paddhati

Dashvidha Parikshya Bhava
Tadvidya sambhasha, vadmarga and tantrayukti
Comparison between methods of research in Ayurveda (Pratigya, Hetu, Udaharana, Upanaya, Nigaman) and contemporary methods in health sciences.

. **Different fields of Research in Ayurveda**
Fundamental research on concepts of Ayurveda

a. Panchamahabhuta and tridosha.
b. Concepts of rasa, guna, virya, vipak, prabhav and karma
c. Concept of prakriti-saradi bhava, ojas, srotas, agni, aam and koshtha.

. **Literary Research-**

ıtroduction to manuscriptology: Definition and scope. Collection, conservation, cataloguing.
ata mining techniques, searching methods for new literature; search of new concepts in the
/ailable literature. Methods for searching internal and external evidences about authors, concepts
ıd development of particular body of knowledge.
. **Drug Research (Laboratory-based)-** Basic knowledge of the following:
rug sources: plant, animal and mineral. Methods of drug identification.
uality control and standardization aspects: Basic knowledge of Pharmacopoeial standards and
ıarameters as set by Ayurvedic Pharmacopoeia of India.
ıformation on WHO guidelines for standardization of herbal preparations. Good Manufacturing
ractices (GMP) and Good Laboratory Practices (GLP).
). **Safety aspects:** Protocols for assessing acute, sub-acute and chronic toxicity studies.
ımiliarization with AYUSH guidelines (Rule 170), CDCSO and OECD guidelines.
ı. Introduction to latest Trends in Drug Discovery and Drug Development
3rief information on the traditional drug discovery process
3rief information on the latest trends in the Drug Discovery process through employment
f rational approach techniques; anti-sense approach, use of micro and macro-arrays, cell culture
ısed assays, use of concepts of systems biology and network physiology
3rief introduction to the process of Drug development
2. Clinical research:
ıtroduction to Clinical Research Methodology identifying the priority areas of Ayurveda
asic knowledge of the following:-
bservational and Interventional studies
escriptive & Analytical studies
ongitudinal & Cross sectional studies
rospective & Retrospectives studies
ohort studies
andomized Controlled Trials (RCT) & their types
ingle-case design, case control studies, ethnographic studies, black box design, cross-over design,
ıctorial design.
rrors and bias in research.
ew concepts in clinical trial- Adaptive clinical trials/ Good clinical practices (GCP)
hases of Clinical studies: 0,1,2,3, and 4.
urvey studies -
lethodology, types, utility and analysis of Qualitative Research methods. Concepts of in-depth

terview and Focus Group Discussion.
3. Pharmacovigilance for ASU drugs. Need, scope and aims & objectives.
ational Pharmacovigilance Programme for ASU drugs.
4. Introduction to bioinformatics, scope of bioinformatics, role of computers in
ology. Introduction to Data base- Pub med, Medlar and Scopus. Accession of databases.
5. Intellectual Property Rights- Different aspect and steps in patenting. Information on Traditional
nowledge Digital Library (TKDL).

PART–B **40 ma**

MEDICAL STATISTICS **Teaching hours:**

1	**Definition of Statistics :** Concepts, relevance and general applications of Biostatistics in Ayurveda
2	**Collection, classification, presentation, analysis and interpretation of data** (Definition, utility and methods)
3	**Scales of Measurements** - nominal, ordinal, interval and ratio scales. **Types of variables** – Continuous, discrete, dependent and independent variables. **Type of series** – Simple, Continuous and Discrete
4	**Measures of Central tendency** – Mean, Median and Mode.
5	**Variability:** Types and measures of variability – Range, Quartile deviation, Percentile, Mean deviation and Standard deviation
6	**Probability**: Definitions, types and laws of probability,
7	**Normal distribution**: Concept and Properties, Sampling distribution, Standard Error, Confidence Interval and its application in interpretation of results and normal probability curve.
8	**Fundamentals of testing of hypotheses:** Null and alternate hypotheses, type I and type 2 errors. Tests of significance: Parametric and Non-Parametric tests, level of significance and power of the test, 'P' value and its interpretation, statistical significance and clinical significance
9	**Univariate analysis of categorical data:** Confidence interval of incidence and prevalence, Odds ratio, relative risk and Risk difference, and their confidence intervals
10	**Parametric tests:** 'Z' test, Student's 't' test: paired and unpaired, 'F' test, Analysis of variance (ANOVA) test, repeated measures analysis of variance
11	**Non parametric methods:** Chi-square test, Fisher's exact test, McNemar's test, Wilcoxon test, Mann-Whitney U test, Kruskall – Wallis with relevant post hoc tests (Dunn)
12	**Correlation and regression analysis:** Concept, properties, computation and applications of correlation, Simple linear correlation, Karl Pearson's correlation co-efficient, Spearman's rank correlation. Regression- simple and multiple.
13	**Sampling and Sample size computation for Ayurvedic research:** Population and sample. Advantages of sampling, Random (Probability) and non random (Non-probability) sampling. Merits of random sampling. Random sampling methods- simple random, stratified, systematic, cluster and multiphase sampling. Concept, logic and requirement of sample size computation, computation of sample size for comparing two means, two proportions, estimating mean and proportions.

14	**Vital statistics and Demography**: computation and applications - Rate, Ratio, Proportion, Mortality and fertility rates, Attack rate and hospital-related statistics
15	**Familiarization with the use of Statistical software** like SPSS/Graph Pad

100 marks

PRACTICAL

I. RESEARCH METHODOLOGY

Teaching hours 120

	PRACTICAL NAME
1	**Pharmaceutical Chemistry** Familiarization and demonstration of common lab instruments for carrying out analysis as per API
2	**Awareness of Chromatographic Techniques** Demonstration or Video clips of following: • Thin-layer chromatography (TLC). • Column chromatography (CC). • Flash chromatography (FC) • High-performance thin-layer chromatography (HPTLC) • High Performance (Pressure) Liquid Chromatography (HPLC) • Gas Chromatography (GC, GLC)
4	**Pharmacognosy** Familiarization and Demonstration of different techniques related to:- Drug administration techniques- oral and parenteral. Blood collection by orbital plexuses puncturing. Techniques of anesthesia and euthanasia. Information about different types of laboratory animals used in experimental research Drug identification as per API including organoleptic evaluation
5	**Pharmacology and toxicology** Familiarization and demonstration of techniques related to pharmacology and toxicology
6	**Biochemistry (Clinical)** Familiarization and demonstration of techniques related to basic instruments used in a clinical biochemistry laboratory – semi and fully automated clinical analyzers, electrolyte analyzer, ELISA- techniques, nephelometry. Demonstration of blood sugar estimation, lipid profiles, kidney function test, liver function test. HbA1, cystatin and microalbumin estimation by nephelometry or other suitable techniques. Interpretation of the results obtained in the light of the data on normal values.
7	**Clinical Pathology** Familiarization and demonstration of techniques related to basic and advanced instruments used in a basic clinical pathology lab. Auto cell counter, urine analyzer, ESR, microscopic examination of urine.
8	**Imaging Sciences** Familiarization and demonstration of techniques related to the imaging techniques. Video film demonstration of CT-Scan, MRI-scan and PET-scan.
9	**Clinical protocol development**

II. MEDICAL STATISTICS

Practical hour

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

istribution of marks (practical):

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

EFERENCE BOOKS:-

harmacognosy:

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.
6. Trease G E and Evans W C, Pharinacognosy, Bailliere Tindall, Eastbourne, U K.
7. Tyler V C., Brady, L R., and Robers J E., Pharmacognosy, Lea and Febiger, Philadelphia.
8. Tyler VE Jr and Schwarting AE., Experimental Pharmacognosy, Burgess Pub. Co, Minneaplis, Minnesot
9. Wallis- TE (2011)- reprint. Practical Pharmacgonosy (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).Worl Health Organization- Geneva.
13. WHO monographs on selected medicinal plants (1999)—Vol. 1. 1.Plants, Medicinal 2.Herbs 3.Traditiona medicine. ISBN 92 4 154517 8. WHO Geneva.

harmaceutical chemistry, quality control and drug standardization:

1. Ayurvedic Pharmacopoeia of India. Part I- volume 1 to 8 and Part II- volume 1to 3. Ministry of Health and Famil Welfare. Controller of Publication. Govt of India. New Delhi.

2. Brain, KR and Turner, TD. (1975). The Practical Evaluation Phytopharmaceuticals. Wright Scienctechnica, Brist
3. Galen Wood Ewing (1985). Instrumental Methods of Chemical Analysis. McGraw-Hill College ; Fifth edition
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.
6. Kapoor, RC (2010). Some observations on the metal based preparations in Indian System of Medicine. Indian Journal of Traditional Knwoledge. 9(3): 562-575
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 Prakasha 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,

iochemistry 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.
8. GradWohl, Clinical Laboratory-methods and diagnosis, Vol-I
9. Clinical Biochemistry -Sabitri Sanyal, Clinical Pathology, B.I.Churchill Livingstone (P) Ltd, New Delhi.2000.
10. Satyanarayanan,U. Essentials of Biochemistry, Books and allied(P) Ltd.2002
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.

esearch 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 Fensternmaker. (2007).*The Art of Literary Research.* 4th ed. W. W. Norton. Castle, Gregory. *Blackw 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 Publishi

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 an 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

rug 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.
4. WHO Guidelines on Safety Monitoring of herbal medicines in pharmacovigilance systems. (2004). WHO- Gene ISBN 92 4 1592214.
5. Natural products isolation. (2006) 2nd ed. / edited by Satyajit D. Sarker, Zahid Latif, Alexander I. Gray. (Meth 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 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
10. ICH Harmonised Tripartite Guideline (2000). Maintenance of the ICH Guideline on Non-clinical Safety Studies : t he conduct of Human Clinical Trials for Pharmaceuticals M3 (R1).
11. Ghosh M.N.: Fundamentals of Experimental Pharmacology, *Scientific Book Agency.*
12. *Bombay.*\
12- Jaju B.P.: Pharmacological Practical Exercise Book, *Jaypee Brothers, New Delhi.*
13- Kulkarni S.K.: Hand Book of Experimental Pharmacology, *Vallabh Prakashan, New Delhi*
14- Ravindran R.: X-Pharm (Software), Indian Journal of Pharmacology, *JIPMER, Pondicherry.*

iotechnology and Bio-informatics:

1. Angela M. Meireles A (2009). Extracting Bioactive compounds for food products. Theory and applications. CR 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 Hou India; 1 edition (July, 2007) ISBN-13: 978-81-8318-831-9
4. Lesk, A.M. Introduction to Bioinformatics Oxford 2002.

5. Satyanarayana, U.: Biotechnology, Books and Allied (P) Ltd, Kolkata, 2005
6. Setubal J. C and J. Meidanis, Introduction to Computational Molecular Biology, PWS Publishing Company, 199
7. http://www.iitb.ac.in/~crnts.
8. http://www. zygogen.com.
9. http://www.dsir.nic.in/reports/tifp/database/metallo.pdf.
10. www.consort-statement.org
11. www.strobe-statement.org
12. www.icmr.nic.in

linical Evaluation:

1. CDSCO, Good Clinical Practices For Clinical Research in India, Schedule Y (Amended Version – 2005), http://cdsco.nic.in/html/GCP1.php
2. Ethical Guidelines for Biomedical Research on Human subjects. (2000). Indian Council of Medical Research- Ne 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
4. Good Clinical Practices- (2001). Guidelines for Clinical Trial on Pharmaceutical Products in India. Central Drug Standard Control Organization. Directorate General of Health Services. New Delhi. (http//WWW.cdsco.nic.in.ich.org)
5. Gupta, SK Ed. Basic Principles of Clinical Research and Methodology (2007). Jaypee Brothers- new Delhi
6. ICH Harmonised Tripartite Guidelines for Good Clinical Practices.(1997)- Quintles- Published by Brookwood Medical Publications. Richmond, Surrey. United Kingdom.
7. NCI. *Clinical Trials Education Series*. http://www.cancer.gov/clinicaltrials/ learning/clinical-trials-education-series, 2001.
8. Petter Laake, Haakon Breien Benestad and Bjørn Reino Olsen. (2007). Research Methodology in the Medical an Biological sciences. Academic Press is an imprint of Elsevier, 84 Theobald's Road, London WC1X 8RR, UK. ISBN: 978-0-12-373874-5
9. William C. Scheffer Introduction to Clinical Researchs

ledical 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, Blackwel Science Ltd; 2002
3. Bland, M. (2000) An Introduction to Medical Statistics (3rd ed). Oxford: Oxford University Press.
4. Bradford Hill – Basic Medical Statistics
5. Cambell, M.J. and Machin, D. (1993) Medical Statistics: A Common Sense Approach (2nd ed). Chester: Wiley.
6. Dwivedi S. N., Sundaram K. R and V. Sreenivas (2009). Medical Statistics - Principles & Methods-BI Publicatio Pvt. Ltd., New Delhi –1.
7. Gupta S.P. - Fundamentals of statistics, Sultan Chand. Delhi.
8. Indrayan. (2008). Basic Methods of Medical Research. AITBS Publishers- India
9. Mahajan B K, Methods in Bio statistics for medical students, 5th Ed. New Delhi, Jaypee Brothers Medical Publishers
10. Mehdi, B and Prakash A. (2010). Biostatistics in Pharmacology. Practical Manual in experimental and clinical pharmacology. 1st Edition. New-Delhi: Jaypee brothers Medical Publishers

11. Rao, NSN and Murthy, NS. (2008) 2nd Edition. Applied statistics in health sciences. Jaypee Brothers Medical Publishers (P) Ltd. Bengaluru, New Delhi.
12. Rick J Turner and Todd A Durham (2008). Introduction to Statistics in Pharmaceutical Clinical trails. Published l 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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M.D.-AYURVEDA PRELIMINARY
8. ROGA NIDANA AVUM VIKRITI VIGYAN
(Pathology and Diagnostic Procedure)

PAPER-II **Theory 100 ma**

PART-A **50 ma**

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

PART-B **50 ma**

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

PRACTICAL **100 ma**

ontents:

1. Duty in hospital OPD and IPD.
2. Duty in pathology laboratory.
3. Case taking – 25 cases
4. Performance of pathology and biochemistry practicals – 10 cases
5. Interpretation of ECG, EEG, X-ray, CT-Scan, MRI and USG

istribution of marks (Practical)

1. Case record (25 Cases) - 10 marks
2. Bed side clinical case taking
3. Long case - 20 Marks
4. Short case - 10 Marks
5. Laboratory Practicals - 20 Marks
6. Interpretation of ECG, EEG, X-ray, CT-Scan, MRI and USG– 10 Marks
7. laboratory experiment record - 10 marks
8. Viva-voce - 20 Marks

EFERENCE BOOKS:

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

8. **Vyadhivigyan I and II** - Yadav Thrikamji
9. **Ayurvediya Roga Vargikaran** - Vd. Ramanat Vd. Gurdip Singh
10. Ayurvediya Nidan Evum Chikitsa Ke Siddhanta - Prof. Ram Harsh Singh
11. Clinical methods in Ayurveda - K. R . S. Murthy
12. Parameswarappa's Ayurvediya Vikriti Vigyan & Roga Vikriti Vigyan - Dr. P.S. Byadgi.
13. Oxford Handbook of Clinical Examination and Practical Skills
14. Symptoms & Signs in Clinical Medicine - Chamberlains
15. Hutchison's Clinical Methods
16. Bedside Clinics in Medicine Part- I & II - Kundu
17. Practical Pathology - Dr. K. Uma Chaturvedi
18. Medical Laboratory Technology - R. Sood
19. Clinical Diagnosis and Management by Laboratory methods - Todd, Sanford and Davidson

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Syllabus of Final MD (RAVV)

8. ROGA NIDANA

PAPER- I FUNDAMENTAL PRINCIPLES OF ROGANIDANA

Concept of Tridosha and its Pathological implications. 63 permutations and combination of Tridosha. Lina and Stambhita Dosha, their cause and importance in manifestation of Samprapti
Concept of Rakta as a Chaturtha Dosha. Importance of Rakta in the manifestation of diseases.
Concept of Ashrayashrayi bhava and its applied utility.
Different types of Dosha Gati.
Causative factors and practical utility of movement of Doshas from Kostha to Shakha and Shakha to Koshtha. Concept of Ashayapakarsha.
Trayo roga marga, their diseases and clinical importance of Roga Marga.
Concept and classification of Avarana, its role in pathogenesis, mode of diagnosis of Avarana and its importance in chikitsa sutra.
Applied aspect of Dhatu Poshana Krama and Dhatu Samvahana. Concept of Margaga and Sthanastha Dhatus.
Conept and applied aspects of Doshapaka and Dhatupaka
Fundamental and applied aspect of Dhatu, Upadhatu and Mala. Diseases developed due to their vitiation (pradoshaja vikara).
Concept and applied aspects of Srotas, their importance in health and diseased conditions.
Concept and applied aspects of Sroto Dushti and Khavaigunya. Understanding the various srotas which are not included in classical list of srotas but enumerated while describing the samprapti of diseases.
Description of Dosha-Dushya-Sammurchhana, Concept of Prakriti Sama Samaveta and Vikriti Vishama Samaveta Sammurchhana. Importance of Dosha-Dushya-Sammurchhana in Diagnosis and treatment.
Concept of Vikara vighata bhavabhava prativisesha.
Concept of Agni and its role in manifestation of health and disease.
Concept and pathogenesis of Ama. Contemporary interpretation of Ama and its role in pathogenesis.
Sama, Nirama stages of Dosha, Dhatu and Mala.
Understanding Samprapti of Santarpanottha and Apatarpanottha Vyadhi
Detailed classification of diseases as described in Ayurveda. Knowledge of ICD and DSM classification.
Detailed understanding of Nidan Panchaka with their classification and clinical importance.
Relation between 'Hetu & Lakshana' and 'Samprapti & Lakshna'.
Explanation and applied aspects of Kriyakala and its utility in diagnosis and treatment.
Importance of Upadrava, Arishta and Sadhyasadhyata and Udarka.
Natural History of the Diseases, concept of vyadhisankara in Ayurveda.

PAPER – II ROGA VIGYANA

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

1. Diseases of Pranavaha srotas- Kasa - Shwasa - Hikka – Urahkshata – Shosha – Rajayakshma and Ayurvedic understanding of common clinical entities like Pneumonia, Pleural effusion, Bronchitis, Bronchiectasis, Pulmonary Tuberculosis, Bronchial Asthma.
2. Diseases of Annavaha- Pureeshavaha Srotas- Agnimandya - Ajirna - Aruchi- Chhardi, Amlapitta- Shoola, Grahani –Gulma- Udara Roga –Vibandha, Atisara – Pravahika along

with various clinical presentations. Ayurvedic understanding of common clinical entities like Peptic Ulcer, Irritable Bowel Syndrome, Diarrhoea, Dysentry, Constipation, ulcerative colitis.

3. Diseases of Udakavaha Srotas- Trishna, Daha and knowledge of water and electrolyte imbalance disorders
4. Diseases of Rasavaha Srotas - jwara and Ayurvedic understanding of common clinical entities like various types of Fever- Malaria, Typhoid, viral fevers. Pandu, Amavata, Hridroga, Shotha and Ayurvedic understanding of common clinical entities like Anaemia & its Classification, Rheumatic fever, Rheumatoid Arthritis, Angina, Ischaemic Heart Disease, Hypertension, Myocardial Infarction ,Congestive cardiac failure.
5. Diseases of Raktavaha Srotas- Kamala - Raktapitta - Vatarakta – Kroshtukaseersha - Shitapitta – Maha Kushta – Visarpa – Shwitra and Kshudra Kushta and Ayurvedic understanding of common clinical entities like jaundice, hepatitis, bleeding disorders, Gout, Thrombo Angitis Obliterens (TAO), Deep Vein Thrombosis (DVT), Leukaemia, Thalessemia, Sickle cell Anaemia. Introduction to Urticaria, Psoriasis, Eczema, Pemphigus, Herpes.
6. Diseases of Mamsavaha srotas- Introduction to Granthi, Arbuda,Galaganda and Arsha. Ayurvedic understanding of all types neoplasia and Thyroid diseases.
7. Diseases of Medovaha srotas- Sthoulya - Karshya – Prameha and Ayurvedic understanding of common clinical entities like Obesity and Diabetes Mellitus.
8. Diseases of Asthi - Majjavaha srotas- Sandhigatavata, Introduction to Asthi-majjaparipaka, Asthigata Vidradhi and Ayurvedic understanding of common clinical entities like Osteo- Arthritis, Osteomyelitis, Osteoporosis.
9. Vatavyadhi-Akshepaka - Apatanaka - Ardita - Pakshaghata – Gridhrasi – Viswachi, Avabahuka, Manyasthambha – Katigraha-Pangutwa- Khanja-Khalwee and Ayurvedic understanding of common clinical entities like Hemiplagia, Parkinson's disease, Lumbago- Sciatica syndrome, Bell's Palsy, Ankylosing Spondylitis, MND and other commonly occurring neurological diseases.
10. Diseases of Sukravaha srotas- Klaibya and Vandhyatva and understanding of male and female Infertility, Impotence.
11. Diseases of Mutravaha srotas -Mutrakrichha – Mutraghata, Ashmari and Ayurvedic understanding of common clinical entities like Urinary Tract Infection, Urolithiasis, Nephropathies and Renal failure.
12. Diseases of Swedavaha srotas-knowledge of khalitya, Palitya and Cosmetology.
13. Diseases of Manovaha Srotas - Vishada, Udvega, Bhaya, Bhrama, Anidra, Mada, Murchha, Sanyasa, Apasmara, Unmada, Atatwabhinivesha and Ayurvedic understanding of common clinical entities like Depression, Anxiety neurosis, Phobia, Personality disorders.
14. Indriya Pradoshaja Vikara.
15. Jara janya Vyadhi: Alzheimer's Disease
16. Concept and tools for the study of Anukta Vyadhi (Unexplained and newly emerging diseases).
17. Understanding the concept of karmaja vyadhi

PAPER – III PARIKSHA VIGYANA

1. Introduction to Clinical methods and technique for the study of clinical examination
2. Importance of medical history taking and its importance in clinical medicine.
3. Aims, Objectives and Methods, applied aspects and importance of various Rogi and Roga Pariksha as per classics.
4. Srotas Pariksha, Shadanga Pariksha vis-à-vis general & systemic examination of patient.
5. Interpretation of Charakokta trividha pramana pariksha and Sushrutokta shadvidha pariksha with clinical methods mentioned in modern medicine.
6. Interpretation and use of ashtasthana nirikshana along with use of current tools as per Ayurveda.

b. Physical Examination, Chemical Examination, and Microscopic Examination
c. Dipstix examination

8. Stool Examination
   i. Ayurveda anusara purisha pariksha-Physical examination - Sama-Nirama Pariksha
   ii. Microscopic and macroscopic examination of stool
9. Sputum Examination
   i. Ayurveda pariksha anusara sthivana.
   ii. Physical, Chemical and Microscopic Examination of the sputum.
10. Semen examination
    1) Ayurvediya anusara Retas pariksha.
    2) Semen examination & clinical interpretation
11. Biochemical tests related to various organ panels- Liver, Kidney, Heart, Thyroid, Pituitary and Bones.
12. Knowledge of different staining techniques in microbiology.
13. Knowledge of Sero-immunological Investigations: RA, Widal test,ASLO titer,ANA,Etc
14. Physical, chemical, microscopic, biochemical and bacteriological tests for various kinds of body aspirates
15. Knowledge of histopathological techniques.

BEDSIDE PRACTICAL /CLINICAL METHODS

1. Expertise in clinical methods (General and Systemic Examination).
2. Practical knowledge of examination of Roga based on Pancha Nidan.
3. Practical knowledge of instruments used for clinical examination.
4. Practical records of clinical examination of at least 30 long cases in I.P.D.
5. Practical records of clinical examination of at least 50 short cases.
6. Practical knowledge of ECG, USG and Imaging techniques and their clinical interpretation
7. Understanding of various Ayurvedic diagnostic softwares/programmes available like Ayu soft, Rudra,Ayut Nidana etc.

PATTERN OF EXAMINATION

Name of Paper	Hours of training	Marks
Paper I	100	100
Paper II	100	100
Paper III	100	100
Paper IV	100	100
Practicals:	Hospital/Laboratory duties at least 4 Hours per day	Total 200 :
Observation Diary		10
Laboratory record		10
Short Case (including Case Record)		20
Long Case (including Case Record)		30
Laboratory Work		40
Thesis Presentation		40
Viva Voce		50

REFERENCE BOOKS

1. Charaka Samhita with Various Commentaries
2. Madhava Nidana with various commentaries
3. Abhinava Vikriti Vigyana - Acharya Raghuvir Prasad Dwivedi

4. Doshakaranatwa Mimamsa - Acharya P.V. Sharma
5. Nadi Darshan - Vd. Tara Shankar Mishra
6. Nadi Vigyanam - Vidyotini Hindi Tika
7. Nadi Vigyan - Shri Satya Dev Vashisht
8. Nadi Vigyan - Gangadhar Tika
9. Nadi pariksha - Vaidya VB Athavale
10. Nadi Pariksha - GP Upadhyay
11. Rogi Pariksha vidhi - Acharya Priyavrata Sharma
12. Roga Vigyan - Dr.Vinay Kumar
13. Siddanta Nidan - Gananatha Sen
14. Ayurvediya Roga Vargikaran - Vd. Ramanath and Vd. Gurdip Singh
15. Ayurvediya Nidan Evum Chikitsa Ke Siddhanta - Prof. Ram Harsh Singh
16. Relevant portions of Charak Samhita, Sushrut Samhita and Vagbhata
17. Clinical methods in Ayurveda - K. R . S. Murthy
18. Parameswarappa's Ayurvediya Vikriti Vigyan and Roga Vikriti Vigyan - Dr. P.S. Byadgi.
19. Nidan Panchaka - Prof SC Dhyani
20. Samprapti lakshana yoh sambhandah - K.Sadashiva Sharma
21. Clinical Diagnosis in Ayurveda in Roga Nidana and Vikriti Vigyana - Vaidya Vasant Patil
22. Oxford Handbook of Clinical Examination and Practical Skills - Oxford Handbooks
23. Symptoms & Signs in Clinical Medicine - Chamberlains
24. Clinical Methods - Hutchinson's
25. Bedside Clinics in Medicine Part- I & II - Kundu
26. Practical Pathology - Dr. K. Uma Chaturvedi
27. Medical Laboratory Technology - R. Sood
28. Clinical Diagnosis and Management by Davidson - Todd, Sanford and Laboratory methods
29. Robbins Basic Pathology - Kumar, Abbas, Fausto at
30. Text Book of Pathology - William Boyds.
31. Text Book of Pathology - Harsh Mohan
32. Text Book of Pathology - Dey and Dey
33. Text Book of Parasitology - Ramnik Sood
34. Clinical Pathology and Bacteriology - S.P. Gupta
35. A Text Book of Microbiology - Ananthanarayana, Panikar

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CENTRAL COUNCIL OF INDIAN MEDICINE

NOTIFICATION

New Delhi, the 16th March, 2012

No. 4-90/2011-Ay. (PG Regu.).—In exercise of the powers conferred by clauses (i), (J) and (k) of sub-sectio section 36 of the Indian Medicine Central Council Act, 1970 (48 of 1970), a supersession of the Indian Medicine Central Council (Post-Graduate Education) Amen Regulations, 2005, except as respects things done or omitted to be done before such s session, the Central Council of Indian Medicine with the previous sanction of the C Government in order to regulate the Post-graduate Education of Ayurveda, hereby r the following regulations namely:-

1. **Short title and commencement.**- (1) These regulations may be called the I Medicine Central Council (Post-graduate Ayurveda Education) Regulations, 201
(2) They shall come into force on the date of their publication in the Official Gazett

2. **Definitions.**- In these regulations, unless the context otherwise requires,-
(a) 'Act' means the Indian Medicine Central Council Act, 1970;
(b) 'Council' means the Central Council of Indian Medicine;
(c) 'recognized institution' means an approved institution as defined under clau & (ea) of Section 2 of the Act.

3. **Aims and objects.**- The aims of the Post-graduate degree courses shall provide orientation of specialties and super-specialties of Ayurveda and to pr experts and specialists who can be competent and efficient teachers, physi surgeons, obstetricians and gynecologists (Stri Roga & Prasuti Tantra pharmaceutical experts, researchers and profound scholars in various fiel specialization of Ayurveda.

4. **Specialties in which Post-graduate degree can be conducted:-** The graduate degrees may be allowed in the following specialties:-

S.No.	Name of Specialty	Nearest terminology of modern subject	Department in which PG degree can be conducte
1	Ayurved Samhita & Siddhant	Ayurved Samhita & Basic principles of Ayurveda	Samhita & Basic Princip Ayurved
2	Rachna Sharir	Anatomy	Rachna Sharira
3	Kriya Sharir	Physiology	Kriya Sharira
4	Dravyaguna Vigyana	Materia Medica & Pharmacology	Dravyaguna
5	Rasa Shastra & Bhaisajya Kalpana	Ayurveda Pharmaceuticals	Rasa Shastra & Bhai Kalpana
6	Prasuti & Stri Roga	Obstetrics & Gynecology	Stri Roga & Prasuti
7	Kaumarbhritya –Bala Roga	Pediatrics	Kaumarbhritya –Bala Roga
8	Swasthavritta & Yoga	Preventive Social Medicine and Yoga	Swasthavritta
9	Kayachikitsa	Medicine	Kayachikitsa
10	Rasayan & Vajikaran	Rasayan Vajikaran	Kayachikitsa
11	Manovigyana avum manas Roga	Psychiatric	Kayachikitsa
12	Rog Nidan avum Vikriti Vigyan	Pathology & Diagnostic Procedure	Rog Nidan avum Vikriti Vi
13	Chhaya avum Vikiran Vigyan	Imaging and Radio diagnosis	Rog Nidan avum Vikriti Vi
14	Shalya - Samanya	General Surgery	Shalya
15	Shalya – kshar Karma avum Anushastra Karma	Surgery in kshar Karma and Para surgical measures	Shalya
16	Sangyaharana	Anaesthesiology	Shalya
17	Asthi Sandhi & Marmagat Roga	Orthopedics	Shalya
18	Netra Roga	Ophthalmology	Shalakya
19	Karna, Nasa, Kantha & Shiro	ENT & Head	Shalakya

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	Roga		
20	Danta avum Mukha Roga	Dentistry and Oral disease	Shalakya
21	Panchakarma	Panchakarma	Panchakarma
22	Agad Tantra avum Vidhi Vaidyaka	Toxicology & Forensic Medicine	Agad Tantra

5. The nomenclature of post-graduate degree in respective specialties shal as follows:-

S.No.	Name of Specialty	Abbreviation
1	Ayurveda Vachaspati - Ayurveda Samhita & Sidhanta	M.D.-Ayurveda Samhita & Basic Principles Ayurveda
2	Ayurveda Vachaspati - Rachna Sharir	M.D.-Ayurveda (Anatomy)
3	Ayurveda Vachaspati - Kriya Sharir	M.D.-Ayurveda (Physiology)
4	Ayurveda Vachaspati - Dravya Guna Vigyana	M.D.-Ayurveda Materia Medica & Pharmacolog
5	Ayurveda Vachaspati -Ras Shastra & Bhaishajya Kalpana	M.D.-Ayurved Pharmaceuticals
6	Ayurveda Dhanvantri - Prasuti avum Stri Roga	M.S.-Ayurveda Gynecology &Obstetrics
7	Ayurveda Vachaspati - Kaumarbhritya - Bala Roga	M.D.-Ayurveda Pediatrics
8	Ayurveda Vachaspati - Kayachikitsa	M.D.-Ayurveda Medicine
9	Ayurveda Vachaspati- Swastha Vritta & yoga	M.D.-Ayurveda Preventive, Social Medicine & Y
10	Ayurveda Vachaspati - Rog Nidan avum Vikriti Vigyana	M.D.-Ayurveda Pathology & Diagnostic proced
11	Ayurveda Dhanvantri - Shalya - Samanya,	M.S.-Ayurveda General Surgery
12	Ayurveda Dhanvantri - Kshar Karma avum Anushastra karma	M.S.-Ayurveda Surgery in Kshar Karma & I Surgical Measures
13	Ayurveda Dhanvantri - Shalakya - Netra Roga	M.S.-Ayurveda Ophthalmology
14	Ayurveda Dhanvantri -Shalakya: Shiro -Nasa Karna avum Kantha Roga	M.S.-Ayurveda ENT & Head
15	Ayurveda Dhanvantri - Shalakya Danta avum Mukha Roga	M.S.-Ayurveda Dentistry and Oral disease
16	Ayurveda Vachaspati - Mano Vigyan avum Manas Roga	M.D.-Ayurveda (Psychiatry)
17	Ayurveda Vachaspati - Panchkarma	M.D.-Ayurveda Panchkarma
18	Ayurveda Vachaspati - Agad Tantra avum Vidhi vaidyaka,	M.D.-Ayurveda Toxicology & Forensic Medicine
19	Ayurveda Vachaspati - Sangyaharana	M.D.-Ayurveda Anesthesiology
20	Ayurveda Vachaspati - Chhaya avum Vikiran Vigyan,	M.D.-Ayurveda Imaging and Radio diagnose
21	Ayurveda Dhanvantri -Asthi Sandhi & Marmagat Roga	M.S.-Ayurveda Orthopedics and Marma
22	Ayurveda Vachaspati - Rasayan & Vajikaran	M.D.-Ayurveda Rasayan & Vajikaran

*The PG degree holder in the old nomenclature will be appointed in conce department like holder of Kriya Sharir (Dosha Dhatu Malvigyan) in the departme Kriya Sharir and PG holder of Kriya Sharir will be appointed on the basis of teac experience in Kriya Sharir or Rachna Sharir. Similarly holder of PG of n developed specialty will be considered for appointment in their basic departi mentioned under provision '4' of the Regulations.

6. Mode of Admission:-

(1) A person possessing the degree in Ayurved of a University or Board or me institution specified in the Second Schedule to the Act Shall be eligible for admi in the post-graduate degree course.

(2) The University or any other committee to be constituted by Government conce shall conduct the admission process.

(3) Selection of candidates shall be made strictly on the basis of final merit l calculated out of total of 100 Marks based on written test.

(4) The written test of 100 Marks shall consist of one common written test of MCQ.

(5) The minimum eligibility marks of the entrance test for admission in the ca general candidates shall be fifty percent of the total marks and in the ca candidates belonging to the Schedule Castes, Scheduled Tribes and Re Government service candidate shall be forty per cent.

(6) The sponsored candidates shall also be required to posses the percentage of m specified sub-regulations (5) except foreign nationals.

(7) Reservation for all categories shall be applicable as per State Government/Ce Government policy.

(8) Change of subject shall be permissible within a period of two months from the of admission, subject to availability of vacancy and guide in the conce Department.

7. Period of Study and attendance:-

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

(2) The student shall have to attend at least seventy five per cent of total lect practicals and clinical tutorials or classes to become eligible for appearing in examination.

(3) The students shall have to attend the hospital and other duties as may be assigne them during the course of study.

(4) The students of clinical subject shall have to do Resident duties in their respe departments and student of non clinical subject shall have duties in their respe departments like Pharmacy, Herbal Garden, Laboratory during entire period.

(5) The students shall have to attend special lectures, demonstrations, seminars, s tours and such other activities as may be arranged by the teaching departments.

8. Method of training:-

(1) Intensive training shall be provided in classical knowledge along with comparative critical study in the respective specialty.

(2) The emphasis shall be given on intensive applied and hand on training.

(3) The students shall have to acquire the knowledge about the methods and techniqu research in the respective fields making use of Information Technology.

(4) In clinical subjects the students shall undertake responsibility in management treatment of patients independently and deal with emergencies.

(5) The student shall have to undertake training in teaching technology and rese methods and shall have to participate in the teaching and training programs of Ur Graduate students or interns in the respective subjects during the course of studies

(6) In the first year of the course, the students shall have to acquire knowledge ir applied aspects of the fundamentals of Ayurved.

(7) In the clinical training the student shall have to acquire the knowledge of indepe work as a specialist.

(8) In the specialties of Shalya, Shalakya and Prasuti & Stri Roga the student shall ha undergo training of investigative procedures, techniques and surgical performan procedures and management in the respective specialty.

9. Dissertation:-

(1) The title of the dissertation alongwith the synopsis, with approval of the Committee constituted by the Institute as per Regulations of concerned University, be submitted to the University within a period of six months from the date of adm to PG course.

(2) If the student fails to submit the title of dissertation and synopsis within the p specified under sub regulation (1) his terms for final PG course will be extended f months or more in accordance with the time of submission of the synopsis t University.

(3) The synopsis of the proposed scheme of work should indicate the familiarity o student with the proposed theme of work, the name of the department and the and designation of the guide or supervisor and co-guide, if any. The University s approve the synopsis not later than three months after submission of the synopsis.

(4) For approving the title a scrutiny Committee shall be constituted by the University.

(5) The University should display the approved synopsis of dissertation on their website.

(6) The subject of every dissertation shall be research, practical oriented, innovativ helpful in the development of Ayurveda. The subject of the dissertation shall relation with the subject matter of the specialty.

(7) Once the title for dissertation is approved by the Scrutiny Committee of the Unive the student shall not be allowed to change the title of the proposed theme of without permission of the University.

(8) No student shall be allowed to submit the dissertation before six months of final However, the student shall continue his or her regular study in the institution submission of dissertation to complete three years.

(9) The dissertation shall contain the methods and data of the research carried out b student on the problem selected by him and completed under the guidance c teacher approved by the University.

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

(11) The dissertation shall consist of not less than forty thousand words.

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

(13)The guide or supervisor shall be a person of status of a Professor or Reader/Associ Professor, Lecturer/ Assistant Professor with five years University approved teachi experience in the subject or three years as Co-Guide.

(14) Five copies of the bound dissertation along with a certificate from the supervisor guide should reach the office of the Registrar of the University four months before t final examination.

(15) The dissertation shall be assessed by two external and one internal examin appointed by the University.

(16) The dissertation shall be accepted only after the approval of examiners appoin under sub-regulation (17) and in case of disapproval by one external examiner, t dissertation shall be referred to third examiner.

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

(18) The student shall be permitted to appear in the final examination of Post-gradu degree course only after examiners appointed for the purpose have approved dissertation.

10.Examination and assessment:-

(1) The Post-Graduate degree Course shall have two examinations in the follow manner:-

(a) The preliminary examination shall be conducted at the end of one academic y after admission;
(b) The final examination shall be conducted on completion of three academic ye after the admission to PG Course;
(c) Examination shall ordinarily be held in the month of June or July and Novem or December every year;
(d) For being declared successful in the examination, student shall have to pass the subjects separately in preliminary examination;
(e) The student shall obtain minimum 50% marks in Practical and theory subj separately to be announced as pass.
(f) If a student fails in preliminary examination, he/she shall have to pass bel appearing in the final Examination;
(g) If the student fails in theory or practical in the final examination he/she appear in the subsequent examination without requiring to submit a fi dissertation; and
(h) The post-graduate degree shall be conferred after the dissertation is accepted the student passes the final examination.

(2) The examination shall be aimed to test the clinical acumen, ability and wor knowledge of the student in the practical aspect of the specialty and his/her fitn to work independently as a sp cialist.
(3) The clinical examination shall aim at a careful assessment of the competence of student, so that his/her familiarity with Ayurved and scientific literature in specialty could be Judged.

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(4) The viva-voce part of the practical examination shall involve extensive discussic any aspect of subject/speciality.

11. Subjects of examination:-

(1) The preliminary examination at the end of one academic year after admission be conducted in the following subjects:-
Paper I
Part A- Research Methodology
Part B- Bio/Medical Statistics
Paper II-
Part A- Applied aspects of fundamentals regarding concerned subjects.
Part B- Concerned subject

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

i. Study of literature related to specialty.
ii. Regular clinical training in the hospital for student of clinical subject.
iii. Practical training of research work carried out in the department, for stude non clinical subject.
iv. Active participation in various seminars, symposia and discussions,
v. Finalization of topic of dissertation and synopsis,
vi. The assessment of the work done during the first year on the above p shall be done at the time of preliminary examination;

(3) The final examination (a) dissertation; (b) written papers; and (c) clinical/pra and oral examination, as the case may be.
(4) There shall be four theory papers in each specialty and one practical or clinica viva-voce examination in the concerned specialty or group of sub-speci selected by the student for special study.
(5) The student shall have to publish/accepted at least one Research paper or basis of his research work in one Journals based on his dissertation and one p presentation in Regional level Seminar.

12.Appointment of examiner:-

The preliminary examination and final examination will be held in practical, clinical and examination. The final examination shall be conducted by a team of 2 Examiners (Retir or Serving) out of which one should be external. The examiners should be minimum of Reader Level or should have minimum 8 years PG teaching experience.

13.Minimum requirement for post-graduate teaching centre:-

(1) The post-graduate education centre shall satisfy the entire mini requirements of under-graduate training as prescribed by the Council.
(2) Facilities regarding training in basic sciences of Ayurveda and other suppo subjects as specified by the Council shall be provided by the Centre.
(3) All the facilities of ancillary departments shall be made available by the Cent
(4) The Centre shall have adequate equipment and research facilities require training in the related specialty and subject.
(5) The minimum additional teaching staff required for starting post-graduate c shall be one Professor/Reader and one Lecturer of concerned subject, in ad

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(4) The Centre shall have adequate equipment and research facilities require training in the related specialty and subject.
(5) The minimum additional teaching staff required for starting post-graduate c shall be one Professor/Reader and one Lecturer of concerned subject, in ad

to the teachers stipulated for under-graduate teaching. The specialty, which d not exist as independent department at UG level shall have minimum Professor/Reader and one lecturer for starting PG.

(6) The Centre shall have a fully equipped hospital consisting of at least hundred beds with specialty-wise adequate facilities in all departments.

The PG subject in non-clinical subject shall be admissible on the basis of strength as specified for UG Norms. But for PG in clinical subjects additional b in the student : bed ratio of 1:4 shall be provided.

(7) The annual average bed-occupancy in the hospital shall be more than 50%.
(8) In clinical departments one Registrar or Senior Resident shall be appointed every twenty beds.
(9) Any UG Institution which has not completed minimum 4½/5 years of UG teacl shall not be eligible for applying for PG permission.

14.Facilities for post-graduate students:- The stipend and contingency shall provided at the rates prevailing in the State for other medical post-gradu students.

15. Guide Students ratio :- The teacher student ratio shall be such that the numbe post-graduate teachers to the number of post-graduate students admitted per y is maintained at 1:3 in case of Professor 1:2 in case of Reader and 1:1 in cas lecturer having minimum 5 years experience. The maximum number of students year per specialty shall not exceed six and this provision shall not be applicabl the existing PG seats.

16.Medium of instructions – Hindi, Sanskrit or English.

PR SHARMA, Registrar-Cum-S
[ADVT III/4/124/11/E

Govt. of India has conveyed the sanctioned vide letter No. V.12014/28/2011-EP(IM-2) dated 22.02.2012.

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