

Curriculum for MD/ MS Ayurveda  
(PRESCRIBED BY NCISM)

अभ्यासात्प्राप्यते दृष्टिः कर्मसिद्धिप्रकाशिनी ।

Semester II

Applied Basics of Rasayana and Vajikarana  
(Rejuvenative and Reproductive Medicine in Ayurveda)  
(SUBJECT CODE : AYPG-AB-RV)

(Applicable from 2024-25 batch, from the academic year 2024-25 onwards until further  
notification by NCISM)



आयुषे सर्वलोकानाम्



BOARD OF AYURVEDA

NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE

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## **PREFACE**

Rasayana and Vajikarana, two distinct yet interconnected branches of Ayurveda, embody the science of rejuvenation (Rasayana) and virility-enhancement (Vajikarana). Rooted in Charaka Samhita and later elaborated by classical treatises, these disciplines offer holistic strategies for Ayu, Bala, Medha, Vrushatva, and Jeevaniya—enhancing longevity, immunity, intellect, fertility, and overall vitality. In a world increasingly grappling with degenerative disorders, premature aging, infertility, and stress-related dysfunctions, the significance of these therapies has only grown more relevant. This postgraduate curriculum has been thoughtfully structured to integrate classical wisdom with contemporary scientific understanding, preparing scholars for meaningful clinical and academic contributions.

The Rasayana module emphasizes preventive and promotive health through Rasayana Dravya, Ajasrika Rasayana, Naimittika Rasayana, and Kamya Rasayana, while also focusing on specialized applications in Jara Vyadhi, Dhatu Kshaya, Ojokshaya, and Chronic Immuno-inflammatory disorders. From Medhya Rasayana for neurocognitive enhancement to Kutipravesika protocols for healthy aging, scholars are exposed to a range of therapeutic options. In Vajikarana, emphasis is placed on the Vrushya effect of herbs and formulations in managing Klaibya, Shukra Dushti, and Vandhyatva, while also considering their psychosomatic influence. The curriculum delves into Beeja, Kshetra, Ritu, and Ambu concepts to address fertility and Garbha Samrakshana in a comprehensive manner.

This curriculum follows a dynamic teaching-learning model that goes beyond didactic lectures. Clinical case discussions, drug preparation workshops, field visits to Rasayana research centers, simulation of geriatric care models, and interaction with infertility clinics form a crucial part of experiential learning. Students are encouraged to explore evidence-based applications, validate traditional knowledge through research, and contribute to integrative models of care. The inclusion of Anukta Vyadhi, Roga Marga, and Vyadhi Sankara management in the context of Rasayana-Vajikarana adds depth to clinical acumen. Designed by seasoned academicians and clinicians, this curriculum aspires to shape scholars who not only preserve this rich knowledge system but also advance it to meet the challenges of modern health paradigms—building a bridge between Ayurveda's timeless vision and the healthcare needs of the future.

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We want that education by which character is formed, strength of mind is increased, the intellect is expanded, and by which one can stand on one's own feet.

*-Swami Vivekananda*



# NCISM

(NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE)

## Curriculum for MD/ MS Ayurveda

Applied Basics of Rasayana and Vajikarana (AYPG-AB-RV)

### Summary & Credit Framework Semester II

Module Number & Name	Credits	Notional Learning Hours	Maximum Marks of assessment of modules (Formative assessment)
M1. Siddhanta of Rasayana	2	60	50
M2. Siddhanta of Vajikarana	2	60	50
M3. Rogi Pareeksha	2	60	50
M4. Diagnostic Procedures	3	90	75
M5. Therapeutic Procedures	2	60	50
M6. Pharmacology	3	90	75
M7. Establishment of Clinical Set up	2	60	50
	<b>16</b>	<b>480</b>	<b>400</b>

#### Credit frame work

AYPG-AB-RV consists of 7 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

**Important Note:** The User Manual MD/MS Ayurveda is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. In case of difficulty and questions regarding the curriculum, write to [syllabus24ayu@ncismindia.org](mailto:syllabus24ayu@ncismindia.org).

**Course Code and Name of Course**

Course code	Name of Course
AYPG-AB-RV	Applied Basics of Rasayana and Vajikarana

**Table 1 : Course learning outcomes and mapped Program learning outcomes**

CO No	A1 Course learning Outcomes (CO) AYPG-AB-RV At the end of the course AYPG-AB-RV, the students should be able to-	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Critically evaluate and synthesize the concepts and principles of management in Rasayana and Vajikarana.	PO1,PO2,PO3,PO7,P O8
CO2	Demonstrate proficiency in clinical examination, investigation, diagnosis and care plan in Rasayana and Vajikarana	PO1,PO2,PO3,PO7,P O8
CO3	Perform relevant procedures by adhering to safety standards	PO1,PO2,PO4,PO7
CO4	Demonstrate empathy with compassion towards patients, families and caretakers while respecting privacy and confidentiality.	PO4,PO6
CO5	Demonstrate skills in academic and research and imbibe advancements in the field of Rasayana and Vajikarana.	PO1,PO5,PO7
CO6	Demonstrate skills in documentation, data management, and the use of tools like Excel through self-directed learning and application in clinical or research settings.	PO1,PO5,PO6,PO7
CO7	Demonstrate leadership and communication skills by conducting patient education sessions, delivering individual and couple counseling, and facilitating genetic counseling in clinical practice.	PO4,PO6,PO7,PO8
CO8	Design and apply innovative, integrative, and evidence-based strategies to manage emerging and complex conditions in Rasayana and Vajikarana.	PO1,PO2,PO3,PO7

**Table 2 : Course contents (Modules- Credits and Notional Learning Hours)**

2A Module Number	2B Module & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including modular assessment	2G Total
1	<p><b>M-1 Siddhanta of Rasayana</b> Siddhanta of Rasayana. The module contains classical review and futuristic scope of Rasayana.</p> <ul style="list-style-type: none"> <li>• <b>M1U1 Ambit of Rasayana</b> <ul style="list-style-type: none"> <li>◦ Scope of Rasayana</li> <li>◦ Classification of Rasayana</li> <li>◦ Approach to geriatric case</li> </ul> </li> <li>• <b>M1U2 Theories of Ageing</b> <ul style="list-style-type: none"> <li>◦ Biologic theories of ageing</li> <li>◦ Sociologic theories of ageing</li> <li>◦ Psychologic theories of ageing</li> <li>◦ Moral theories of ageing</li> </ul> </li> <li>• <b>M1U3 Understanding dhatu in the perspective of rasayana</b> <ul style="list-style-type: none"> <li>◦ Stem Cell Theories &amp; Fundamental processes in Stem cell biology</li> <li>◦ Therapeutic Potential</li> <li>◦ Clinical applications</li> <li>◦ Ethical and regulatory aspects</li> </ul> </li> </ul>	2	10	20	30	60

	◦ Stem cell technologies					
2	<b>M-2 Siddhanta of Vajikarana</b> The module contains classical review of Vajikarana and its application in present era.  <b>• M2U1 Ambit of Vajikarana</b>  ◦ Scope of Vajikarana ◦ Classification of Vajikarana ◦ Approach to reproductive case  <b>• M2U2 Stree purusha prajanana sansthana</b>  ◦ Anatomy & Physiology including reproductive endocrinology of Male Reproductive System ◦ Anatomy & Physiology including reproductive endocrinology of Female Reproductive System	2	10	20	30	60
3	<b>M-3 Rogi Pareeksha</b> The module aims at assessing general and localized examination, to attain higher perception of rogi pariksha at different avastha and kala; and also assess the indication and contraindication of suitable rasayana and vajikarana prayoga in an individual after assessing rogi pariksha.  <b>• M3U1 Assessment of prakruti, nadi, sara &amp; satva</b>  ◦ Prakruti assessment ◦ Nadi pariksha	2	10	20	30	60

	<ul style="list-style-type: none"> <li>◦ Sara pariksha</li> <li>◦ Satva pariksha</li> </ul> <p>• <b>M3U2 Reproductive examination</b></p> <ul style="list-style-type: none"> <li>◦ Male genital examination</li> <li>◦ Female genital examination</li> </ul>					
4	<p><b>M-4 Diagnostic Procedures</b> The module aims at acquiring skills in performing laboratory investigations and its interpretation, knowledge of the high end techniques related to infertility evaluation.</p> <p>• <b>M4U1 Shukra pariksha</b></p> <ul style="list-style-type: none"> <li>◦ Reto pariksha</li> <li>◦ Sperm Function test &amp; CASA</li> <li>◦ Penile &amp; Scrotal doppler</li> </ul> <p>• <b>M4U2 Shukra and arthava combined tests</b></p> <ul style="list-style-type: none"> <li>◦ Cervical Mucus Examination</li> <li>◦ Post Coital Test</li> <li>◦ Sperm Mucous interactions study</li> </ul> <p>• <b>M4U3 Beeja pariksha</b></p> <ul style="list-style-type: none"> <li>◦ Karyotyping analysis</li> <li>◦ YCMD screening</li> <li>◦ CFTR screening</li> </ul>	3	15	30	45	90



5	<b>M-5 Therapeutic Procedures</b> Therapeutic Procedures The module aims at developing proficiency essential for enhancing skills in performing therapeutic procedures. <ul style="list-style-type: none"> <li>• <b>M5U1 Specialized chikitsa in reproductive system</b> <ul style="list-style-type: none"> <li>◦ Male Uttara Basti</li> <li>◦ Female Uttara Basti</li> <li>◦ Sthanika chikitsa in male &amp; female concerning to infertility &amp; sexual dysfunction</li> <li>◦ Semen Wash &amp; Artificial Insemination</li> </ul> </li> </ul>	2	10	20	30	60
6	<b>M-6 Pharmacology</b> Pharmacology This module describes about the Geriatrics and reproductive pharmacology. <ul style="list-style-type: none"> <li>• <b>M6U1 Geriatric Pharmacology</b> <ul style="list-style-type: none"> <li>◦ Mode of action of drugs used in metabolic and geriatric regulation</li> <li>◦ Discuss the concept, application, pharmacodynamics and pharmacokinetics of the group of vayahsthapana gana, ayuskara, balya and brumhana, santarpana.</li> <li>◦ Describe the bioinformatics mechanism of drugs belonging to vayahsthapana gana, ayuskara, balya and brumhana, santarpana.</li> </ul> </li> <li>• <b>M6U2 Reproductive Pharmacology</b></li> </ul>	3	15	30	45	90

	<ul style="list-style-type: none"> <li>◦ Mode of action of drugs used in male and female reproductive regulation</li> <li>◦ Discuss the concept, application, pharmacodynamics and pharmacokinetics of the group of Shukra janana, shodhana, pravartaka, sthambaka, shukrala, shoshaka, Arthava janana, prajasthapana</li> <li>◦ Describe the bioinformatics mechanism of drugs belonging to Shukra janana, shodhana, pravartaka, sthambaka, shukrala, shoshaka, Arthava janana, prajasthapana</li> </ul>					
7	<p><b>M-7 Establishment of Clinical Set up</b></p> <p>Establishment of Clinical Set up</p> <p>This module contains description about the key components in establishment of rejuvenation, and geriatric and reproductive clinical set up</p> <p>• <b>M7U1 Rejuvenative &amp; geriatric centre</b></p> <ul style="list-style-type: none"> <li>◦ Setting up of Rejuvenative &amp; geriatric centre</li> <li>◦ Statutory requirements for clinical set up</li> <li>◦ Rules and regulations</li> <li>◦ Certification</li> <li>◦ Ethical Issues</li> <li>◦ Medical record documentation</li> <li>◦ Tele-consultation</li> </ul> <p>• <b>M7U2 Reproductive centre</b></p> <ul style="list-style-type: none"> <li>◦ Setting up of Reproductive centre</li> <li>◦ Statutory requirements for clinical set up</li> <li>◦ Rules and regulations</li> </ul>	2	10	20	30	60

	<ul style="list-style-type: none"><li>◦ Certification</li><li>◦ Ethical Issues</li><li>◦ Medical record documentation</li><li>◦ Tele-consultation</li></ul>					
		16	80	160	240	480

**Table 3 : Modules - Unit - Module Learning Objectives and Session Learning Objective- Notional Learning Hours- Domain-Level- TL Methods**

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical training /experiential learning) session, the students should be able to)	3C Notional learning Hours	3D Lecture/ Practical Training/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/Shows how/Knows how/Know)	3G Teaching Learning Methods
<b>Module 1 : Siddhanta of Rasayana</b>						
<b>Module Learning Objectives</b> <b>(At the end of the module, the students should be able to)</b> <ol style="list-style-type: none"> <li>1. Interpret the scope of Rasayana in clinical practice.</li> <li>2. Analyze clinical application of Rasayana.</li> <li>3. Construct the geriatric Case Record Format (CRF).</li> </ol>						
<b>Unit 1 Ambit of Rasayana</b> <ul style="list-style-type: none"> <li>◦ Scope of Rasayana</li> <li>◦ Classification of Rasayana</li> <li>◦ Approach to geriatric case</li> </ul> <b>References:</b> 2,3,6,28,31,33,37,40						
3A	3B	3C	3D	3E	3F	3G
CO1,CO5	Categorize the Urjaskara, Vayasthapana, Balakara, Ayusthapana aspects of Rasayana	1	Lecture	CAP	Knows-how	L&GD,L &PPT
CO1,CO5	Analyze the various rasayana as per utility according to classical texts.	2	Practical	CAN	Knows-	BS,DIS

			Training 1.1		how	
CO1,CO5	Identify proximal principles of nitya sevaniya diet & dietetics for Rasayana effects.	2	Practical Training 1.2	CAP	Knows-how	LS
CO1,CO5,CO8	Analyze Jara lakshna and application of Rasayana.	2	Practical Training 1.3	CAP	Knows-how	CBL,DIS, PBL
CO1,CO5,CO8	Determine the Ayusthapana effects of Rasayana by reviewing different research articles	2	Practical Training 1.4	CE	Knows-how	LS
CO1,CO5	Design the rules for selection of Rasayana.	3	Experiential-Learning 1.1	CE	Knows-how	DIS
CO1,CO5,CO8	Distinguish the Approach and Applicability of Rasayana according to Dhatu, Srotas,Vaya and Kala	1	Lecture	CAP	Knows-how	L&GD
CO1,CO5	Analyse the indications of rasayana, which is specific to Dhatu, Sara, Srotodushti, Vayoavastha and Kala	2	Practical Training 1.5	CE	Knows-how	CBL,PBL
CO1,CO5	Interview with Ayurvedic practitioners to identify relevant disease stage/avastha for the application of Rasayana.	3	Experiential-Learning 1.2	CE	Knows-how	IBL
CO1,CO5	Analyse clinical application of Dhatu and srotaswise Rasayana	3	Experiential-Learning 1.3	CE	Knows-how	JC,TPW
CO1,CO2,CO5,CO8	Execute Inter disciplinary approach for assessment of patient for decade specific Rasayana	3	Experiential-Learning 1.4	CAP	Knows-how	PER
CO1,CO5	Discuss the scope of Rasayana according Vaya and Kala.	3	Experiential-Learning 1.5	CE	Knows-how	PBL,TBL
CO1,CO5	Describe the methodology of Rasayana therapy including duration, Anupana and Patyapathya	1	Lecture	CC	Knows-how	IBL
CO1,CO5	Execute Rasayana therapy.	2	Practical	CE	Knows-	CBL,PSM

			Training 1.6		how	
CO1,CO5	Evaluate the effects of Rasayana.	2	Practical Training 1.7	CE	Knows-how	PL,PBL
CO1,CO5	Describe the concepts of Nutraceuticals, Micronutrients and Anti-oxidants with respect to Rasayana	1	Lecture	CC	Knows-how	BS,L&G D
CO1,CO5,CO8	Analyze the effect of Rasayana as Nutraceuticals, Micronutrients and Anti-oxidants	2	Practical Training 1.8	CAN	Knows-how	DIS,LS
CO1,CO5	Discuss various classifications of Rasayana	1	Lecture	CC	Knows-how	LS
CO1,CO5	Analyse the Rasayana based on phalasaruti from relevant chapters of Samhita.	2	Practical Training 1.9	CE	Knows-how	LS,SDL
CO1,CO5	Analyse relevance of Achara Rasayana in present scenario	3	Experiential-Learning 1.6	AFT-VAL	Does	PL,RLE,SDL
CO1,CO5	Distinguish the various components of geriatric case taking methods	1	Lecture	CAN	Knows-how	IBL,L_V C
CO1,CO5	Construct the geriatric Case record format.	3	Experiential-Learning 1.7	CAP	Knows-how	CBL
CO1,CO5	Execute case taking method in different types of geriatric cases	2	Practical Training 1.10	AFT-SET	Shows-how	PER,RP

## Unit 2 Theories of Ageing

- Biologic theories of ageing
- Sociologic theories of ageing
- Psychologic theories of ageing
- Moral theories of ageing

**References:** 58,59

3A	3B	3C	3D	3E	3F	3G
CO1,CO5	Evaluate different theories of ageing	1	Lecture	CAN	Knows-how	L&GD,L &PPT

### Unit 3 Understanding dhatu in the perspective of rasayana

- Stem Cell Theories & Fundamental processes in Stem cell biology
- Therapeutic Potential
- Clinical applications
- Ethical and regulatory aspects
- Stem cell technologies

**References:** 58,59,60

3A	3B	3C	3D	3E	3F	3G
CO1,CO5	Describe with the concept of stem cell theories and correlate with the fundamentals of Ayurveda	1	Lecture	CAN	Know	L_VC
CO1,CO5	Analyze clinical application of Rasayana.	3	Experiential-Learning 1.8	CAN	Knows-how	DIS,JC
CO1,CO5,CO8	Discuss the Clinical applications and Therapeutic Potential of stem cell in current clinical practices	1	Lecture	CC	Knows-how	PBL
CO1,CO5,CO8	Review case studies where stem cell therapies have been applied clinically, discussing successes, challenges	1	Experiential-Learning 1.9	CE	Knows-how	DIS,JC
CO1,CO5	Identify regulatory frameworks surrounding stem cell therapies and clinical trial processes.	1	Lecture	CAP	Knows-how	L&GD,L &PPT
CO1,CO5	Compile the safety and efficacy standards applicable for stem cell therapies	1	Experiential-	CC	Knows-	FV,LS,SD

			Learning 1.10	how	L
<b>Practical Training Activity</b>					
<b>Practical No</b>	<b>Name</b>	<b>Activity details</b>			
Practical Training 1.1	Revisiting samhita for rasayana adhyaya.	Teacher will ask students to navigate all classical texts for relevant chapters of rasayana ( Abhayamalaki, Pranakamiya, Karaprachitiya and Ayurveda Samuthaniya) Teacher will perform the critical analysis of Rasayana. Student will distinguish the utility of various Rasayana and make a chart			
Practical Training 1.2	Compilation of Nithya sevaniya dravya Rasayana	Teacher will ask to compile Nithya sevaniya dravya Rasayana Teacher will discuss various sources of Rasayana useful as diet & dietetics Student will assess & analyse proximal principles of Nithya sevaniya dravya as Rasayana Student will present the same in the class and teacher will finally summarize the proximal principles of nityasevaniya diet & dietetics			
Practical Training 1.3	Samhita based jara Lakshana for Vayasthapana.	Teacher will ask the student to review Samhita based jara Lakshana Student will prepare the checklist for assessment on different persons/patients Teacher will suggest measures for Vayasthapana (Arresting premature aging),			
Practical Training 1.4	Ayusthapana rasayana	Teacher will identify peer reviewed journals and download suitable articles published on Rasayana effects w.r.t Ayusthapana. Student will go through the content and to prepare the PPT Teacher will discuss and summarise .			
Practical Training 1.5	Rasayana for Dhatu, Sara, Srotodushti, Vayoavastha and Kala specific in individuals	Teacher will assess the need of Rasayana in patients / persons specific to Dhatu etc. Teacher will highlight the specific indications and contra-indications. Teacher will suggest the suitable Rasayana w.r.t underlying condition. Student will note the same.			



Practical Training 1.6	Rasayana therapy for Pandu Rogi.	Teacher will identify and allot the suitable Pandu Rogi and ask the student to proceed for Rasayana treatment plan. Student will focus on potential of Rasayana at etiology specific, stage specific, Updrava specific, Nidanarthakaratva of Pandu Vyadhi Teacher will sum up the whole activity
Practical Training 1.7	Prescribing Rasayana and evaluate the effects.	Teacher will identify five patients, who need Rasayana therapy. Student will take the cases and write the treatment protocol for the same Discuss on treatment protocol including Rasayana advises Prepare checklist to incorporate Vyadhiavastha, focusing on Rasayana relevant Kala, dose, Anupana, duration and Pathaypathya.
Practical Training 1.8	Rasayana in terms of Nutraceuticals, micronutrients and Anti-oxidants	Teacher will select 5 Rasayana dravya/kalpa (like Chyawanaprasha, Brahma Rasayana) Teacher will discuss the nutraceuticals, micronutrients and anti-oxidants effects based on its ingredients Teacher will instruct the student to review the published articles and to present in the class Teacher will conclude the presentation.
Practical Training 1.9	Compilation of Rasayana phalasruti.	Teacher will assign and navigate the classical texts for Phala shruti of relevant Rasayana. Student will perform critical analysis of that Phala shruti Teacher will guide to categorise them for different clinical usage.
Practical Training 1.10	Geriatric case taking	Teacher will select relevant geriatric cases and involve the student to apply suitable case taking methods/scales Under the guidance of teacher, the student will orderly document the assessment as performed Teacher will discuss the findings

### Experiential learning Activity

Experiential learning No	Name	Activity details
Experiential-Learning 1.1	Experiencing the effects of Rutuharitaki after consuming by self or on	Student will consume Rutuharitaki in one season with appropriate Anupana (either self or will ask the peers). Student will observe the changes subjectively and document the same Further, student will focus on outlier changes and will note for further research

	peers and document it	
Experiential-Learning 1.2	Interview with Ayurvedic practitioners to identify the suitable stage for application of Rasayana	<p>Student will interview with an Ayurvedic practitioner who have clinical expertise.to identify the suitable stage for application of Rasayana</p> <p>Student will get insights about the following: Suitable stage for application of Rasayana, its dose, duration, sevana Kala and Anupana, Adverse reactions if any, Patient compliance</p> <p>Eg: Application of Rasayana in conditions like Post malignancy palliative, Post AKT.</p> <p>Student will document the same</p>
Experiential-Learning 1.3	Compilation on Dhatu and Srotas specific Rasayana	<p>Student will discuss the Medo dhatu &amp; Mutrvaha Srotas in the context of Prameha Upadrava like diabetic Retinopathy / Nephropathy/ Neuropathy from the available literature.</p> <p>Student will discuss mode of action of different Rasayana yoga.</p> <p>Student will also review the relevant published article by joining in Journal Club for further discussion.</p> <p>Student will design the Project work</p> <p>Teacher will sumup the work and evaluate</p>
Experiential-Learning 1.4	Application of decade specific rasayana	<p>Student will go to the scheduled postings at various departmental OPD/IPD- Streeroga, Bala, Shalakyas, Kayachikitsa</p> <p>Student will observe different patients for decade specific Lakshana Note the incidence in such patients</p> <p>Student will apply suitable scale for assessment of severity. compare with textual reference</p> <p>Teacher will go through the highlights of student case presentation on decade specific Rasayana and conclude the same.</p>
Experiential-Learning 1.5	Protocol on applicability of Rasayana specific to Vaya and Kala	<p>Student will visit MRD of the institute and select closed cases of last six months</p> <p>Student will segregate the cases into various groups based on the age, and rutu</p> <p>He will interpret the textual knowledge applicable to such cases</p> <p>Student will plan/suggest a protocol of Rasayana applicability specific to Vaya and Kala groups.</p> <p>Eg: Bala – svarna prashana, Yuva-Shilajatu Vriddha –Aswagandha Season based- Amrita Bhallataka Rasayana in Tamakasvasa</p> <p>Teacher will evaluate.</p>

Experiential-Learning 1.6	Achara Rasayana in present scenario	<p>Student shall write down the contents of Achara Rasayana. and segregate them as relevance in present scenario.</p> <p>Student shall make aware to peers contents of Achara Rasayana.</p> <p>He will document self / peers experiences</p> <p>Finally he will prepare the checklist as per documented experiences</p> <p>Teacher will add master opinion.</p>
Experiential-Learning 1.7	Geriatric evaluation as per the developed case report form.	<p>Teacher will allot five geriatric patients</p> <p>Student will take cases, assess and observe the findings</p> <p>Student will document the same in the Case Report Form and present the same in the class</p> <p>Teacher will observe and guide.</p>
Experiential-Learning 1.8	Relevance of Rasayana Oushadhi as regenerative medicine in the lines of stem cell technology.	<p>Student will review the articles from peer reviewed journals.</p> <p>Student will observe the relevance of Rasayana Oushadhi as regenerative medicine in the lines of stem cell technology. (example Ashwagandha, Haridra, Bala as regenerative medicine).</p> <p>Student will compile the inference and discuss it in the Journal Club.</p> <p>Student will present the same in the class</p> <p>Teacher will check for its relevance</p>
Experiential-Learning 1.9	Success stories of stem cell therapies.	<p>Student will review the articles from peer reviewed journals..</p> <p>Study stem cell therapies which have been applied clinically.</p> <p>Student will discuss its success and challenges in the Journal Club for further discussion on the topic.</p> <p>Student will present it in the class.</p> <p>Teacher will finalize the challenges in stem cell therapy and suggest few measures to overcome it.</p>
Experiential-Learning 1.10	Efficacy standards applicable for stem cell therapies	<p>Student will gather information / data from various sources (journals/e-book)</p> <p>Teacher will facilitate the student to visit a stem cell laboratory to interact about safety and efficacy standards applicable for stem cell therapies</p> <p>Student shall share the experiences of visit, Document and present the same in the class</p> <p>Teacher will conclude the safety &amp; efficacy standards applicable.</p>
<b>Modular Assessment</b>		

Assessment method	Hour
<p>Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.</p> <p>1. Recite the fundamental slokas of Rasayana Adhyayana ( Viva -10 marks ). Teacher will assess the pronunciation and clarity of shloka, memorization and fluency, meaning and context and expression of the scholar</p> <p>2. Screening and examination of the geriatric case as per case record format ( Practical 20 marks). teacher will assess the following points like history taking, physical examinations, communication skills, cognitive assessment.</p> <p>3. LAQ ( theory 10 marks)</p> <p>4. Demonstrate the case based application of Rasayana Practical viva ( 10 marks) Teacher will assess the following points like analysis of clinical case, selection of appropriate rasayanas and its justification, treatment plans and dosages . Or Any practical in converted form can be taken for assessment (25 Marks). and Any experiential as portfolio/reflections/presentations, can be taken as an assessment (25 Marks).</p>	4

## Module 2 : Siddhanta of Vajikarana

### Module Learning Objectives

(At the end of the module, the students should be able to)

1. Interpret the scope of Vajikarana in clinical practice.
2. Construct the case taking format for both infertile and sexual dysfunction case.
3. Examine the Reproductive system of male and female in terms of Vajikarana.

### Unit 1 Ambit of Vajikarana

- Scope of Vajikarana
- Classification of Vajikarana
- Approach to reproductive case

**References:** 2,8,15,40,87,88

3A	3B	3C	3D	3E	3F	3G
CO1,CO5	Discuss the scope and clinical relevance of Vajikarana	1	Lecture	CAP	Knows-how	BL,DIS
CO1,CO2,CO4	Evaluate various dimensions of Vajikarana w.r.t Epigenetics	1	Lecture	CAN	Knows-how	L&GD
CO1,CO5	Co-relate various dimensions of Vajikarana w.r.t Aphrodisiacs	1	Lecture	CAN	Knows-how	FV
CO1,CO6	Classification various Vajikarana dravya	2	Practical Training 2.1	CAN	Knows-how	SDL

CO1,CO2,CO6	Discuss the aphrodisiac formulations explained in classical Vajikarana contexts.	3	Experiential-Learning 2.1	CS	Knows-how	DIS,LS,SDL
CO1,CO2	Describe the applied aspects of male shareera	1	Lecture	CE	Knows-how	CBL,D
CO1,CO2,CO3	Illustrate approach to the examination of male genital system	2	Practical Training 2.2	PSY-GUD	Shows-how	CBL,D,P T
CO1,CO2,CO7	Conduct theory Class on applied aspect of Physiology of male reproductive system	3	Experiential-Learning 2.2	CAP	Does	L&PPT
CO1,CO2,CO7	Conduct theory Class on applied aspect of Physiology of female reproductive system.	3	Experiential-Learning 2.3	CAP	Does	L&PPT ,L_VC
CO1,CO2,CO7	Execute practical class on Anatomy of female reproductive system	4	Experiential-Learning 2.4	PSY-MEC	Shows-how	D-M,L&PPT ,L_VC
CO1,CO8	Elaborate the Scientific deliberations of Shukra Nirmiti	1	Lecture	CE	Knows-how	BL,FC

## Unit 2 Stree purusha prajanana sansthana

- Anatomy & Physiology including reproductive endocrinology of Male Reproductive System
- Anatomy & Physiology including reproductive endocrinology of Female Reproductive System

**References:** 50,51,52,69,71,72

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Execute practical class on Anatomy of male reproductive system.	3	Experiential-Learning 2.5	CAP	Shows-how	CBL,D-BED
CO1,CO2,CO3	Demonstrate Anthropometry of male reproductive organs	2	Practical	PSY-	Shows-	D-

			Training 2.3	MEC	how	BED,PBL
CO1,CO2	Discuss recent trends of approach to infertility	1	Lecture	CE	Knows-how	L&GD
CO1,CO2,CO3	Describe Sexual dysfunction in male & female	1	Lecture	CAN	Knows-how	L&GD
CO1,CO2,CO3	Construct Case Report Form (CRF) for an Infertile & Sexual dysfunction case	2	Practical Training 2.4	CE	Knows-how	CBL,SDL
CO1,CO2,CO4	Discuss the Clinical approach to history taking in a case of sexual dysfunction of an individual and as a couple.	4	Practical Training 2.5	AFT-REC	Shows-how	CBL,DIS
CO1,CO2,CO7	Capture clinical data of sexual dysfunction and infertility in appropriate format.	3	Experiential-Learning 2.6	AFT-VAL	Knows-how	CBL,DIS
CO1,CO2,CO3	Evaluate normal Semen parameters as per WHO guidelines	2	Practical Training 2.6	CE	Knows-how	LRI,L_V C
CO1,CO4	Validate the various terminologies (Sanjnya Nischchiti Karana) for Shukra	3	Experiential-Learning 2.7	CE	Knows-how	LS,SDL
CO1,CO7	Conduct a class Seminar on terminology of Vandhyatva (Infertility)	2	Experiential-Learning 2.8	CAN	Knows-how	DIS,LS
CO1,CO2	Interpret clinically the various functions of shukra..	1	Lecture	CAN	Knows-how	L&PPT
CO1,CO3	Interpret Male Reproductive Hormones in a clinical Practice	2	Practical Training 2.7	CE	Knows-how	L&GD
CO1,CO2	Discuss Hormonal influence on menstrual cycle	1	Lecture	CAN	Knows-how	BL,DIS,L &PPT
CO1,CO2	Illustrate the approach to the examination of female reproductive system	2	Practical	PSY-	Shows-	CBL,D

			Training 2.8	GUD	how	
CO1,CO2	Discuss Scientific approach to Rutu Kala	1	Lecture	CAN	Knows-how	BS
CO1,CO2	Interpret Female Reproductive Hormones (Sampreraka) in clinical Practice	2	Practical Training 2.9	CE	Knows-how	DIS,LRI
CO1	Validate different meanings of Artava	2	Experiential-Learning 2.9	CAN	Knows-how	LS,PL,SD L

### Practical Training Activity

Practical No	Name	Activity details
Practical Training 2.1	Classification of Vajikarana Dravya	<p>Teacher will ask the student to recap the classical texts for classification of Vajikarana Dravya.</p> <p>Student will note down the classification-Shukra Dusti hara and Praharsha Jananam in detail like Alpa-Kshina-Dust-Visuska Retas and its remedies like Apyayana- Praasadan-Upachaya-Jananam etc.</p> <p>Student will focus on each parameter in detail .</p> <p>Student will prepare and present it in a schematic way through a chart.</p> <p>Teacher will conclude the session by summing up of the classification of Vajikarana.</p>
Practical Training 2.2	Examination of male genital system	<p>Teacher will select a suitable dummy model or any male patient for demonstration of male genital systems.</p> <p>Teacher will demonstrate various anatomical organs on dummy environment or on any male patient..</p> <p>Teacher will elaborate on the following : Pre requisites for examination, Indications for examinations, Contraindications for examinations, Consent to be taken, Focus on care to be taken during examination, To respect the privacy, confidentiality and value of patients.</p> <p>Student will observe and note down the steps and teacher will ask the student to perform the same.</p> <p>Teacher will do the assessment of practical performance.</p>
Practical Training 2.3	Anthropometric description of reproductive organs of male patients	<p>Teacher will assign the student to review the classical texts for Sharira Pramana</p> <p>Teacher will demonstrate bedside Anthropometry of male reproductive organs w.r.t Sharira Pramana (Anguli-Anjali pramana).</p> <p>Teacher will explain to use specific instruments for examination in male like Prader Orchidometer for Anthropometric examination.</p> <p>Teacher will make student to involve in the practical demonstration, and student will focus on care to be taken while examining</p>



		with instruments.
Practical Training 2.4	CRF for Infertile & Sexual dysfunction cases	<p>Teacher will assign an Infertile couple and / or Sexual dysfunction case to the student</p> <p>Student will observe points related to Demographic data, Chief &amp; associated complaints, Set Inclusion &amp; exclusion criteria, Set Assessment parameters, Enlist Investigations to be advised, Enlist Interventions to be advised, Periodic follow-ups, Patient information sheet (PIS) and Consent form to draft</p> <p>Student finally document CRF as a Record and the teacher will conclude the final CRF based on the inputs of the students.</p>
Practical Training 2.5	History taking for sexual dysfunction of an individual patients and as a couple.	<p>The teacher will allot cases of sexual dysfunction of an individual and as a couple.</p> <p>Teacher will explain about: approach cases of sexual dysfunction of an individual and as a couple, Learn Art of soft skills for communication, Plan for Counselling techniques for individual and couple, Maintain Privacy &amp; confidentiality and Complete history taking process</p> <p>Student will document the same and Teacher will sum-up</p>
Practical Training 2.6	Normal Semen parameters as per WHO guidelines	<p>Teacher will start discussion on Normal Semen parameters as per WHO guidelines.</p> <p>Student will identify the terminology for abnormality.</p> <p>Teacher will further discuss the abnormality and its relevant causes.</p> <p>Teacher will assess the student's performance on Normal Semen parameters.</p>
Practical Training 2.7	Interpretation of Male Reproductive Hormones in a clinical Practice	<p>Teacher will explain about relevant male reproductive hormones (Testosterone, FSH, LH, PL). and will discuss the normal and abnormal values.</p> <p>Further, teacher will focus on laboratory value Vs Diagnostic value</p> <p>Teacher will discuss the abnormality with clinical interpretation along with relevant causes.</p> <p>Sensitize about investigation techniques for hormonal assay including its approximate tariff.</p> <p>Student will note down all the above points of discussion about Hormonal testing</p>
Practical Training 2.8	Examination of female reproductive system	<p>Teacher shall select a suitable dummy model / female patient for examination of female genital system.</p> <p>Students shall observe various anatomical organs on dummy environment / on female patient.</p> <p>Teacher will discuss the following: Pre requisites for examination (Presence of Female attendant as per requirement); Indications for examination; Contraindications for examination; Consent and Focus on care to be taken during examination.</p>

		Teacher will observe the practical performance.
Practical Training 2.9	Interpretation of Female Reproductive Hormones (Sampreraka) in clinical Practice	<p>Teacher will explain about relevant female reproductive hormones ( FSH, LH, PL, E2, Testosterone). and will discuss the normal and abnormal values..</p> <p>Further, teacher will focus on laboratory value Vs Diagnostic value.</p> <p>Teacher will discuss the abnormality with clinical interpretation along with relevant causes.</p> <p>Sensitize about investigation techniques for hormonal assay including its approximate tariff.</p> <p>Student will note down all the above points of discussion about Hormonal testing.</p> <p>Teacher will take practical viva for assessment of the student on interpretation of female reproductive hormones..</p>
<b>Experiential learning Activity</b>		
<b>Experiential learning No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning 2.1	Analysis of the Aphrodisiac formulations from the classical texts	<p>Teacher will discuss about the Aphrodisiac formulations from the classical texts.</p> <p>And will ask the student to compile the Aphrodisiac formulations from the Library as available in classical texts.</p> <p>Student will categorize them according to clinical aspects of Vajikarana. Eg: Shukra Janaka, Shukra Pravartaka, Shukra Stratikara.</p> <p>Student will focus on phalashruti and analyze its mode of action as per Vajikarana aspect.</p> <p>Student will make a compilation.</p> <p>Teacher will sum-up the activity as per Vajikarana aspect.</p>
Experiential-Learning 2.2	Theory class on Physiology of Male reproductive system	<p>Teacher shall assign the topic to student</p> <p>Student has to recap the topic and will prepare an appropriate presentation with PPT &amp; Videos.</p> <p>Student will conduct theory class to UG students / Peers.</p> <p>Teacher will observe and guide</p>
Experiential-Learning 2.3	Theory class on applied aspects of Physiology of	<p>Teacher shall assign the topic to the student.</p> <p>Student has to recap the topic and will prepare an appropriate presentation with PPT &amp; Videos.</p>

	female reproductive system.	<p>Student will conduct theory class to UG students / Peers..</p> <p>Teacher will observe and guide.</p> <p>Further, the teacher will assess 360 degree evaluation of the student for content, confidence, presentation skills, communication skills, group control for the PPT presentation made by the student.</p> <p>Teacher will conclude the physiology of female reproductive system at the end of the activity.</p>
Experiential-Learning 2.4	Examination of female reproductive system	<p>Teacher will make the students into two groups.</p> <p>Teacher shall assign a suitable female manikin or patient for examination to the student.</p> <p>Teacher will explain to respect the privacy, confidentiality and value of patients.</p> <p>Student will explain the theory part of the topic first, followed by practical demonstration on model / Patient .</p> <p>Student shall follow the standard steps for reproductive system examination and will note the findings.</p> <p>Teacher will monitor the same and assess the student group's performance.</p>
Experiential-Learning 2.5	Anatomy of male reproductive system.	<p>Teacher shall assign a suitable male patient for examination to the student.</p> <p>Student shall follow the standard steps for reproductive system examination and will demonstrate the same on bedside.</p> <p>Student will note the findings.</p> <p>Teacher will monitor the student demonstration and assess through OSCE.</p>
Experiential-Learning 2.6	Data capturing of sexual dysfunction and infertility cases	<p>Teacher shall provide five cases / Case records of sexual dysfunction and infertility cases.</p> <p>Student shall focus on data capturing and its analysis</p> <p>Student will discuss and present the same</p>
Experiential-Learning 2.7	Validation of terminologies (Sanjnya Nischchiti Karana) for Shukra	<p>Teacher will declare the appropriate topic on Shukra</p> <p>Student will compile various terminologies related to Shukra and try to interpret with reference to context (Tantrayukti).</p> <p>Further proceed for debate in the class and conclude the terminology (Sanjnya Nischchiti Karana) for Shukra</p> <p>Teacher will observe and conclude the debate. .</p>
Experiential-Learning 2.8	Seminar on terminologies of Vandhyatva.	<p>Teacher will declare the appropriate topic on types of Vandhyatva.</p> <p>Student will compile various terminologies related to Vandhyatva (Infertility), Impotency, Shandatva/ Klaibya.</p> <p>Student will make presentation.</p>

Experiential-Learning 2.9	Activity on different meanings of Artava	Teacher will declare the appropriate topic on Artava. Student will identify various meanings related to Artava. Student will try to interpret with reference to context (Tantrayukti). Student will prepare a PPT and present. Teacher will Conclude the meanings of Artava.
<b>Modular Assessment</b>		
<b>Assessment method</b>		<b>Hour</b>
<p>Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.</p> <p>1. Recite the fundamental slokas of vajikarana Adhyayana ( Viva -10 marks ).</p> <p>2. Screening and examination of the both infertile and sexual dysfunction case as per case record format ( Practical 20 marks).</p> <p>3. LAQ ( theory 10 marks)</p> <p>4. Demonstrate the case based application of both infertile and sexual dysfunction case. Practical viva ( 10 marks)</p> <p>Or</p> <p>Any practical in converted form can be taken for assessment (25 Marks).</p> <p>and</p> <p>Any experiential as portfolio/reflections/presentations, can be taken as an assessment (25 Marks).</p>		4

## Module 3 : Rogi Pareeksha

### Module Learning Objectives

(At the end of the module, the students should be able to)

1. Apply the knowledge of rogi pariksha in assessing the avastha of an individual for suitable rasayana & vajikarana prayoga.
2. Conduct different methods of examination & assessment to conclude the health status of an individual and discuss the possible rasayana & vajikarana suitable based on assessment.
3. Determine the prakruti, nadi, sara and satva in an individual and suggest a suitable rasayana & vajikarana kalpa.
4. Demonstrate the genital examination in male & female infertility & sexual dysfunction.

### Unit 1 Assessment of prakruti, nadi, sara & satva

- Prakruti assessment
- Nadi pariksha
- Sara pariksha
- Satva pariksha

**References:** 2,3,4,5

3A	3B	3C	3D	3E	3F	3G
CO2,CO4,CO6 ,CO7	Discuss the possible variations that can occur in prakruti and its interactions with age, season and stage of life, as a pre-requisite for Rasayana and prayoga.	1	Lecture	CAN	Knows-how	L&GD
CO2,CO4,CO6 ,CO7	Discuss the possible variations that can occur in prakruti and its interactions with age, season and stages of life, as a pre-requisite for Vajikarana prayoga.	1	Lecture	CAN	Knows-how	L&GD
CO2,CO4,CO6 ,CO7	Determine the prakruti by assessing through physical, mental, emotional, physiological questionnaires and discuss the suitable Rasayana prayoga.	2	Practical Training 3.1	CAP	Knows-how	TBL

CO2,CO4,CO6,CO7	Determine the prakruti by assessing through physical, mental, emotional, and physiological questionnaires and discuss the suitable Vajikarana prayoga.	2	Practical Training 3.2	CAP	Knows-how	TBL
CO2,CO4,CO6,CO7	Analyze the prakruti of patients visiting the OPD and customize the dose and duration of the selected rasayana & vajikarana kalpa with rationality.	3	Experiential-Learning 3.1	CAP	Knows-how	RLE
CO2,CO4,CO6,CO7	Summarize the applications of recent advances in the domain of research related to prakruti.	3	Experiential-Learning 3.2	CC	Knows-how	CBL,JC
CO2,CO4,CO6,CO7	Discuss the possible variations that can occur in nadi and its interactions with varying age, season and stage of life, as a pre-requisite for Rasayana & Vajikarana prayoga.	1	Lecture	CAN	Knows-how	DIS
CO2,CO4,CO6,CO7	Conduct Nadi Pariksha to assess Prakruti and Vikruti, determine constitutional changes, and personalise Rasayana and Vajikarana for health, vitality, and longevity.	2	Practical Training 3.3	PSY-GUD	Shows-how	TBL
CO2,CO4,CO6,CO7	Search out for recent advances in nadi pariksha and critically analyze the scope of nadi yantra in assessing nadi.	3	Experiential-Learning 3.3	CE	Does	CBL,JC
CO2,CO4,CO6,CO7	Apply the process of formation of ahara - rasa and absorption of sara bhaga in view of Rasayana & Vajikarana kalpa.	1	Lecture	CAP	Knows-how	BS
CO2,CO4,CO6,CO7	Identify the features of individuals belonging to ashta-saara.	1	Lecture	CAN	Knows-how	CBL
CO2,CO4,CO6,CO7	Demonstrate the procedure of assessing dhatusarata parikshana amongst co-scholars and simulated patients.	2	Practical Training 3.4	PSY-GUD	Shows-how	TBL
CO2,CO4,CO6,CO7	Demonstrate dhatusarata parikshana in swastha purusha & atura and discuss the suitable rasayana or vajikarana to be administered.	2	Practical Training 3.5	PSY-GUD	Shows-how	TBL
CO2,CO4,CO6,CO7	Prescribe rasayana or vajikarana prayoga according to individual Dhatusaarata with appropriate justification.	3	Experiential-Learning 3.4	CAN	Knows-how	CBL
CO2,CO4,CO6	Co-relate Kala with Dhatu Sarata, assess health through Sara Pariksha, and tailor	3	Experiential-	PSY-ADT	Does	CBL

,CO7	Rasayana or Vajikarana Kalpa for optimal use.		Learning 3.5			
CO2,CO4,CO6 ,CO7	Determine the appropriate Rasayana or Vajikarana according to satva and guna..	1	Lecture	CAN	Knows-how	DIS
CO2,CO4,CO6 ,CO7	Perform Satva Pariksha in Swastha and Atura, and discuss Rasayana or Vajikarana administration regarding initiation, duration, and dosage.	2	Practical Training 3.6	PSY-GUD	Shows-how	TBL
CO2,CO4,CO6 ,CO7	Justify the initiation, duration and dose of rasayana or vajikarana to be administered acc to satva.	3	Experiential-Learning 3.6	CE	Knows-how	CBL

## Unit 2 Reproductive examination

- Male genital examination
- Female genital examination

**References:** 98,99,100

3A	3B	3C	3D	3E	3F	3G
CO2,CO4,CO6 ,CO7	Discuss the pre-requisites for male genital examination	1	Lecture	CAN	Knows-how	DIS
CO2,CO4,CO6 ,CO7	Reiterate approach towards male genital examination	1	Lecture	CAN	Knows-how	DIS
CO2,CO4,CO6 ,CO7	Practice of male genital examination on Manikin	2	Practical Training 3.7	PSY-MEC	Shows-how	D,D-M
CO2,CO4,CO6 ,CO7	Assess the pathological conditions on male genital manikin and thorough documentation of the findings.	2	Practical Training 3.8	CE	Shows-how	D,D-M
CO2,CO4,CO6 ,CO7	Document the key points in male genital examination on OPD patients	3	Experiential-Learning 3.7	CE	Knows-how	CBL
CO2,CO4,CO6	Demonstration of female genital examination on manikin	3	Experiential-	PSY-ADT	Shows-	D

,CO7			Learning 3.8		how	
CO2,CO4,CO6 ,CO7	Discuss the pre-requisites for female genital examination	1	Lecture	CAN	Knows-how	DIS
CO2,CO4,CO6 ,CO7	Reiterate approach towards female genital examination	1	Lecture	CAN	Knows-how	DIS
CO2,CO4,CO6 ,CO7	Practice of female genital examination on manikin	2	Practical Training 3.9	PSY-MEC	Shows-how	D-M
CO2,CO4,CO6 ,CO7	Assess the pathological conditions on female genital manikin and thorough documentation of the findings.	2	Practical Training 3.10	CE	Shows-how	D,D-M
CO2,CO4,CO6 ,CO7	Document the key points in female genital examination on OPD patients	1	Experiential-Learning 3.9	CE	Knows-how	D
CO2,CO4,CO6 ,CO7	Demonstration of female genital examination on manikin	1	Experiential-Learning 3.10	PSY-ADT	Does	D

### Practical Training Activity

Practical No	Name	Activity details
Practical Training 3.1	Prakruti anusara Rasayana prayoga	The teacher shall debrief and demonstrate, and the scholars shall practise by: Utilizing the standardised prakruti assessment tool by CCRAS and determine the prakruti by assessing through physical, mental, emotional, and physiological questionnaires (Link: doi/10.5005/jp-journals-10064-0019) in at least 9 individuals at 3 different decades of life span; Appreciating the variations assessed in different prakriti at different decades and discuss the suitable Rasayana prayoga in each individual, with the assistance of the concerned faculty.(3 individuals in 3rd decade, 3 individuals in 5th decade, 3 individuals in 7th decade); Identifying potential contraindications and safety.
Practical Training 3.2	Prakruti anusara Vajikarana prayoga.	The teacher shall debrief, demonstrate and the scholars shall practice by: Utilizing the standardized prakruti assessment tool by CCRAS and determine the prakruti by assessing through physical, mental, emotional, physiological questionnaires (Link: doi/10.5005/jp - journals -10064 -0019), in at-least 9 individuals at 3 different decades of life span; Appreciating the variations assessed in different prakruti at different decades and discuss the suitable Vajikarana prayoga in each individual, with the



		assistance of the concerned faculty.. (3 individuals in 3rd decade, 3 individuals in 5th decade, 3 individuals in 7th decade); Identifying potential contraindications and safety.
Practical Training 3.3	Assessment of Nadi Pariksha for Rasayana & Vajikarana Prayoga for health promotion, vitality and longevity.	The teacher shall demonstrate by performing nadi pariksha and observing for qualitative and quantitative parameters to determine dual and triple constitutional dominance, to further personalize interventions. The scholar shall: Detect current imbalances by noting deviations from constitutional norms considering seasonal, age-related, mental and emotional states, geographical and daily cyclical variations in the pulse; Monitor the nadi regularly on simulated patients to track shifts in vikruti and evaluate the efficacy of the therapy; Determine the rasayana and vajikarana protocols according to changes noted in nadi, occurring due to external and internal factors under the guidance of the teacher.
Practical Training 3.4	Assessment of dhatusarata in co-scholars and simulated patients.	The teacher shall conduct a group activity by: Assigning the scholars to perform the saara pariksha by thoroughly assessing through prashna, darshana, sparshana, nadi, sharirika and manasika prakruti, in depth dhatu pariksha in at-least 9 individuals at 3 different decades of life span; Identify the status of each dhatu saara in at-least 9 individuals of different prakruti at different decades of life; followed by group discussion.
Practical Training 3.5	Assessment of dhatusarata and selection of suitable rasayana or vajikarana aushadhi.	The teacher shall conduct a group activity by: Assigning the scholars to identify each dhatu for its strength, weakness or imbalance; then determine the sarata of the individual in at-least 9 swastha and atura purush; Tailor treatment to restore dhatu sara, by selecting appropriate rasayana and/ or vajikarana prayoga; Identify potential contraindications and safety; followed by group discussion.
Practical Training 3.6	Satva anusara rasayana or vajikarana prayoga in swastha and atura purusha.	The teacher shall conduct a group activity by: Assigning the scholars to perform satva pariksha and observe for qualitative and quantitative parameters to determine mental and emotional constitutional dominance, to further personalize interventions; Detect current imbalances by noting deviations from constitutional norms considering seasonal, age related, mental and emotional states, geographical and daily cyclical variations; Monitor the satva regularly on simulated patients to track shifts in vikruti and evaluate the efficacy of the therapy; Determine the rasayana and vajikarana protocols, according to changes noted in satva, occurring due to external and internal factors; followed by group discussion.
Practical Training 3.7	Male genital examination on Manikin	The teacher shall demonstrate: The male genital examination on manikin by performing inspection & palpation of penis, scrotum and its contents, testes, epididymis, spermatic cord and urethral meatus, and appreciate the normal findings; The special tests involved in the examination of male infertility & sexual dysfunction. The scholars shall perform & practice the examinations on manikins under the guidance of the teacher.
Practical	Documentation of	The teacher shall demonstrate on manikin: The presentation of pathological findings related to Testicular torsion, epididymitis,

Training 3.8	pathological findings of male genital examination.	hydrocele, varicocele, inguinal hernia, penile lesions, phimosis and prostate abnormalities; Discuss the skills required to disclose the pathological findings to the patient in a sensitive and professional manner; Document the findings of the genital examination in a universally accepted case record format. The scholars shall perform and practice examining the pathological findings on manikins, enact acquiring skills to disclose the pathological findings to the patient in a sensitive and professional manner, and document the findings in notes.
Practical Training 3.9	Female genital examination on manikin	The teacher shall demonstrate: The female genital examination on manikin by performing inspection of pubic hair, labia majora & minora, urethra, vaginal introitus, perineum and anus; and palpation of labia majora, Bartholin's glands, perineal area and inguinal lymph nodes; internal pelvic examination including per speculum, per vaginal & recto-vaginal examination, and appreciate the normal findings; The special tests involved in the examination of female infertility & sexual dysfunction. The scholars shall perform & practice the examinations on manikin under the guidance of the teacher.
Practical Training 3.10	Documentation of pathological findings of female genital examination.	The teacher shall exhibit the pathological conditions through videos or in patients like Vaginal discharge or inflammation, cervical erosion, polyps, nabothian cysts, retro-verted uterus, mass in fornices; and discuss its relation to infertility; Discuss the skills required to disclose the pathological findings to the patient in a sensitive and professional manner; Document the findings of genital examination in universally accepted case record format. The scholars shall perform and practice examining the pathological findings on manikin; enact acquiring skills to disclose the pathological findings to the patient in a sensitive and professional manner; and document the findings in notes.

### Experiential learning Activity

Experiential learning No	Name	Activity details
Experiential-Learning 3.1	Customization of rasayana & vajikarana kalpa according to prakruti analysis.	The scholars shall analyze the prakruti of patients visiting the OPD considering age, season and stages of life in 32 patients at 4 different decades of life span; Appreciate the changes with thorough history and customize the dose and duration of the selected rasayana & vajikarana kalpa with rationality under the assistance of concerned faculty. ( 4 in 3rd decade, 4 in 4th decade, 4 in 6th decade, 4 in 8th decade; 4 each for rasayana & 4 each for vajikarana); Identify potential contraindications and safety.
Experiential-Learning 3.2	Recent advances related to prakruti.	The scholars shall compile and present in class seminar the upcoming advances in research by discussing at-least 2 papers of each of areas including Genetic underpinning of prakruti, Physiological markers and dosha, Integration of Omics technologies and Impact on Ayurveda interventions and lifestyle; Presentation & discussion of published case studies and/ or OPD patients who underwent genetic testing and then received Ayurveda-based treatments tailored to their doshic constitution to demonstrate how

		modern genetics and Ayurveda can complement each other; Identify potential contraindications and safety, under the assistance of concerned faculty.
Experiential-Learning 3.3	Recent advances in nadi pariksha and analysis of nadi yantra in assessing nadi.	The department shall conduct workshops to study modern devices like digital sensors, AI based interpretation and wearable devices, and compare manual readings with device outputs for accuracy and consistency; Critically analyze the current research papers on how nadi characteristics align with cardiovascular, neurological and metabolic markers; The scholars shall then compile and present the scope and advantages, limitations and challenges, application in health monitoring and therapeutic evaluation of Nadi yantra.
Experiential-Learning 3.4	Customization of rasayana & vajikarana kalpa according to dhatusarata.	Under the guidance of the concerned faculty, the scholars shall analyze the dhatu sarata in patients visiting the OPD in at-least 16 patients at 4 different decades of life span; Appreciate the findings of dhatu sara in swastha and/ or atura purusha with thorough history and customize the dose and duration of the selected rasayana & vajikarana kalpa with rationality. ( 4 in 3rd decade, 4 in 4th decade, 4 in 6th decade, 4 in 8th decade; 4 each for rasayana & 4 each for vajikarana); Identify potential contraindications and safety.
Experiential-Learning 3.5	Customization of rasayana & vajikarana kalpa according to prakruti, sara and analyse the concept of kala.	The scholars shall determine the sharirika and manasika prakruti, dhatu sarata in individuals and apply the concept of kala specific to the dhatu; Utilize the findings in selecting a suitable and customized rasayana or vajikarana kalpa based on the status of sarata assessed; Identify potential contraindications and safety; and the concerned faculty shall conduct a group discussion on it.
Experiential-Learning 3.6	Customization of rasayana & vajikarana kalpa according to satva.	The scholars shall perform detailed satva pariksha and determine the status of satva assessed in a swastha and atura purusha; Determine the appropriate rasayana and vajikarana protocols to be administered with rationality, under the guidance of concerned faculty.
Experiential-Learning 3.7	Documentation of male genital examination on OPD patients	The scholars shall observe the communication skills, patient positioning and examination techniques while the consultant performs male genital examination, observe the documentation and reporting of the findings in systematic way.
Experiential-Learning 3.8	Demonstration of male genital examination on manikin	The scholars shall practice the male genital examination on manikin and conduct clinical class for undergraduates as a part of the curriculum, under the observation of the teacher.

Experiential-Learning 3.9	Documentation of female genital examination on OPD patients	The scholars shall observe the communication skills, patient positioning and examination techniques while the consultant performs female genital examination, observe the documentation and reporting of the findings in systematic way.
Experiential-Learning 3.10	Demonstration of female genital examination on manikin	The scholars shall practice the female genital examination on manikin and conduct clinical class for undergraduates as a part of the curriculum, under the observation of the teacher.

### Modular Assessment

Assessment method	Hour
<p>Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.</p> <p>1.Scholar will demonstrate the genital examination in male or female patient/ manikin (Practical 20 marks) Teacher will assess the following steps of scholar like preparation,positioning of patient,inspection,palpation,speculam examination,bimanual examination,and interpretation of the examination.</p> <p>2.Scholar will assess the nadi/ prakruti/ sara/ satva of patient and explain the selection of appropriate Rasayana kalpa with rationality (Practical Viva 15 marks) teacher will assess the following points like explanation of detailed steps involved in pariksha,hand position in naadi pariksha,findings of dosha dominance ,differentiation of prakriti and vikriti,clinical importance of satva and saara ,rationalty behind selection of rasayana kalpa.</p> <p>3.Scholar will assess the nadi/ prakruti/ sara/ satva of patient and explain the selection of appropriate Vajikarana kalpa with rationality (Practical Viva 15 marks) teacher will assess the following points like explanation of detailed steps involved in pariksha,hand position in naadi pariksha,findings of dosha dominance ,differentiation of prakriti and vikriti,clinical importance of satva and saara,rationalty behind selection of vajikarana kalpa.</p> <p>Or Any practical in converted form can be taken for assessment (25 Marks). and Any experiential as portfolio/reflections/presentations, can be taken as an assessment (25 Marks).</p>	4

## Module 4 : Diagnostic Procedures

### Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the importance and clinical aspects of shukra pariksha, combined tests of shukra & arthava and beeja pariksha.
2. Demonstrate the laboratory procedures related to shukra pariksha, combined tests of shukra & arthava and beeja pariksha.
3. Observe, assist & interpret reports of the laboratory procedures related to shukra, combined tests of shukra & arthava and beeja pariksha.

### Unit 1 Shukra pariksha

- Reto pariksha
- Sperm Function test & CASA
- Penile & Scrotal doppler

**References:** 73,90,91,92,101

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO7	Describe shukra, shuddha shukra laxana, shukra dushti and reto dushti.	1	Lecture	CAN	Know	DIS
CO1,CO2,CO7	Discuss the procedure of Semen analysis as per latest WHO guidelines.	1	Lecture	CE	Knows-how	C_L
CO1,CO2,CO7	Appreciate the various equipment required in the seminology laboratory.	2	Practical Training 4.1	CAP	Knows-how	DL
CO1,CO2,CO7	Demonstrate the procedure for Macroscopic Parameters of Retopariksha.	2	Practical Training 4.2	PSY-GUD	Shows-how	DL
CO1,CO2,CO7	Demonstrate the procedure for Microscopic Parameters of Retopariksha.	2	Practical	PSY-	Shows-	DL

			Training 4.3	GUD	how	
CO1,CO2,CO7	Perform the procedure of Retopariksha as per SOP.	3	Experiential-Learning 4.1	PSY-GUD	Shows-how	DL
CO1,CO2,CO7	Interpret the reports of Retopariksha.	3	Experiential-Learning 4.2	CE	Knows-how	LRI
CO1,CO2,CO7	Discuss the role and advantage of Sperm Function Tests in Male infertility.	1	Lecture	CC	Knows-how	L&GD
CO1,CO2,CO7	Describe the specialized SFT.	1	Lecture	CC	Knows-how	L&GD
CO1,CO2,CO7	Discuss the principle and handling of CASA.	1	Lecture	CAP	Knows-how	L
CO1,CO2,CO7	Demonstrate the Sperm function tests and CASA.	2	Practical Training 4.4	PSY-SET	Shows-how	DL
CO1,CO2,CO7	Analyze the procedure of Sperm function tests and CASA.	3	Experiential-Learning 4.3	CAN	Knows-how	DL
CO1,CO2,CO7	Discuss the application of SFTs in ART procedures.	3	Experiential-Learning 4.4	CE	Knows-how	FC,JC
CO1,CO2,CO7	Discuss the basics of normal erection, brief about penile Doppler examination and penile imaging.	1	Lecture	CAP	Knows-how	L&PPT
CO1,CO2,CO7	Discuss Scrotal Doppler examination and scrotal imaging.	1	Lecture	CAP	Knows-how	L&PPT
CO1,CO2,CO7	Demonstrate the penile Doppler.	2	Practical Training 4.5	PSY-SET	Shows-how	D,L_VC
CO1,CO2,CO7	Demonstrate the scrotal Doppler.	2	Practical	PSY-SET	Shows-	D,L_VC

			Training 4.6		how	
CO1,CO2,CO7	Analyze the procedure of Penile & Scrotal Doppler with interpretation.	3	Experiential-Learning 4.5	CAN	Knows-how	ECE
CO1,CO2,CO7	Discuss updates related to penile & scrotal Doppler.	3	Experiential-Learning 4.6	CE	Knows-how	JC,L&PPT

## Unit 2 Shukra and arthava combined tests

- Cervical Mucus Examination
- Post Coital Test
- Sperm Mucous interactions study

**References:** 73,90,91,92,101

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO7	Analyze the role of cervical mucus study in infertility and its clinical aspects.	1	Lecture	CAN	Knows-how	DIS
CO1,CO2,CO7	Demonstrate the procedure of CMS.	2	Practical Training 4.7	PSY-GUD	Shows-how	DL
CO1,CO2,CO7	Interpret the findings of cervical mucus.	2	Practical Training 4.8	CE	Knows-how	LRI
CO1,CO2,CO7	Perform the procedure of CMS and interpret the findings.	3	Experiential-Learning 4.7	PSY-MEC	Shows-how	DL
CO1,CO2,CO7	Discuss the recent researches related to CMS and fertility.	2	Experiential-Learning 4.8	CAN	Knows-how	JC
CO1,CO2,CO7	Analyze the role of post coital test in infertility and its clinical aspects.	1	Lecture	CAN	Knows-how	DIS

CO1,CO2,CO7	Demonstrate the procedure of PCT.	2	Practical Training 4.9	PSY-GUD	Shows-how	DL
CO1,CO2,CO7	Perform the procedure of PCT and interpret the findings.	3	Experiential-Learning 4.9	PSY-MEC	Shows-how	DL,LRI
CO1,CO2,CO7	Discuss the recent researches related to PCT and fertility.	3	Experiential-Learning 4.10	CAN	Does	JC
CO1,CO2,CO7	Analyze the role of Sperm Mucus Interaction Techniques in infertility and its clinical aspects.	1	Lecture	CAN	Knows-how	L&GD
CO1,CO2,CO7	Demonstrate the procedure of SMIT using 'Simplified slide method'.	2	Practical Training 4.10	PSY-SET	Shows-how	DL
CO1,CO2,CO7	Demonstrate the procedure of SMIT using 'Capillary tube technique'.	2	Practical Training 4.11	PSY-SET	Shows-how	DL
CO1,CO2,CO7	Perform the procedure of SMIT and interpret the findings.	3	Experiential-Learning 4.11	PSY-GUD	Shows-how	DL,LRI
CO1,CO2,CO7	Discuss the recent researches related to SMIT and fertility.	3	Experiential-Learning 4.12	CAN	Shows-how	JC

### Unit 3 Beeja pariksha

- Karyotyping analysis
- YCMD screening
- CFTR screening

**References:** 93,94,95,96

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO7	Describe the applied basics of genetics	1	Lecture	CC	Know	L



CO1,CO2,CO7	Discuss the indication, clinical presentation, varying patterns and procedure of karyotyping in infertility.	1	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO7	Interpret the report of karyotyping and pathologies involved in male patient.	2	Practical Training 4.12	CAN	Knows-how	LRI
CO1,CO2,CO7	Interpret the report of karyotyping and pathologies involved in female patient.	2	Practical Training 4.13	CAN	Knows-how	LRI
CO1,CO2,CO7	Evaluate the recent researches in Karyotyping and associated management.	2	Experiential-Learning 4.13	CE	Does	JC,L&GD
CO1,CO2,CO7	Discuss the etiology, inheritance pattern, clinical presentation, indications and treatment of Y chromosome micro-deletion.	1	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO7	Discuss the procedure of YCMD screening and interpret the report.	2	Practical Training 4.14	CAN	Shows-how	LRI
CO1,CO2,CO7	Evaluate the recent researches in YCMD screening and associated management.	1	Experiential-Learning 4.14	CE	Does	JC,L&GD
CO1,CO2,CO7	Discuss the etiology, pathophysiology, clinical features, diagnosis, treatment of Cystic fibrosis and its relation with infertility.	1	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO7	Discuss gene therapy, structure of CFTR gene, its location and function in the body, classification and mechanism, screening of CFTR for Infertility.	1	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO7	Discuss the procedure of CFTR screening and interpret the report.	2	Practical Training 4.15	CAN	Shows-how	LRI
CO1,CO2,CO7	Evaluate the recent researches in CFTR screening and associated management.	1	Experiential-Learning 4.15	CE	Does	JC,L&GD

### Practical Training Activity

Practical No	Name	Activity details
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Practical Training 4.1	Equipment in the seminology laboratory.	The teacher shall discuss the usage and principle of the laboratory equipment and demonstrate the handling of all the equipment as per SOP, required for conducting various tests in the seminology laboratory.
Practical Training 4.2	Macroscopic Parameters of Retopariksha.	The teacher shall demonstrate the procedure of retopariksha as per SOP developed according to the latest WHO guidelines for semen analysis for Macroscopic Parameters and discuss the clinical aspects. The scholars shall further practice the macroscopic analysis of semen according to the SOP.
Practical Training 4.3	Microscopic Parameters of Retopariksha.	The teacher shall demonstrate the procedure of retopariksha as per SOP developed according to the latest WHO guidelines for semen analysis for Microscopic Parameters and discuss the clinical aspects. The scholars shall further practice the microscopic analysis of semen according to the SOP.
Practical Training 4.4	Sperm function tests and CASA.	The teacher shall demonstrate the operation and procedure of CASA and SFT as per SOP developed according to the latest WHO guidelines for semen analysis and discuss the clinical aspects. The scholars shall further practice the tests according to the SOP.
Practical Training 4.5	Penile Doppler demonstration.	The teacher shall demonstrate the technique of using penile Doppler in flaccid and erect state on manikin or through video demonstration, and discuss five reports as example.
Practical Training 4.6	Scrotal Doppler demonstration.	The teacher shall demonstrate the technique of using scrotal Doppler on manikin or through video demonstration, and discuss five reports as example.
Practical Training 4.7	Procedure of CMS.	The teacher shall demonstrate the procedure of CMS and discuss the clinical aspects. The scholars shall practice the procedure as per the developed SOP.
Practical Training 4.8	Interpretation of cervical mucus.	The scholars shall practice the procedure of CMS and the teacher shall discuss the findings with appropriate dosha dushti correlation.
Practical Training 4.9	Procedure demonstrate of PCT.	The teacher shall demonstrate the procedure of PCT and discuss the clinical aspects. The scholars shall practice the procedure as per the developed SOP.
Practical Training 4.10	SMIT procedure using 'Simplified slide method'.	The teacher shall demonstrate the procedure of SMIT using 'Simplified slide method' and discuss the clinical aspects. The scholars shall practice the procedure as per the developed SOP.
Practical Training 4.11	SMIT procedure of using 'Capillary tube	The teacher shall demonstrate the procedure of SMIT using 'Capillary tube technique' and discuss the clinical aspects. The scholars shall practice the procedure as per the developed SOP.

	technique’.	
Practical Training 4.12	Pathologies and interpretation of karyotyping reports in male patient.	The teacher shall present karyotyping reports of 04 male patients (02 related to Reproductive medicine and 02 related to Rejuvenative medicine), discuss the abnormalities, its interpretation and the clinical pathology.
Practical Training 4.13	Pathologies and interpretation of karyotyping reports in female patient.	The teacher shall present karyotyping reports of 04 female patients (02 related to Reproductive medicine and 02 related to Rejuvenative medicine), discuss the abnormalities, its interpretation and the clinical pathology.
Practical Training 4.14	Procedure of YCMD screening and interpretation of the report.	The teacher shall present 02 reports of YCMD screening, discuss the abnormalities, its interpretation and the clinical pathology.
Practical Training 4.15	Procedure and interpretation of CFTR screening.	The teacher shall present 02 reports of CFTR screening, discuss the abnormalities, its interpretation and the clinical pathology.

### Experiential learning Activity

Experiential learning No	Name	Activity details
Experiential-Learning 4.1	Procedure of Retopariksha as per SOP.	Under the guidance of the teacher, the scholars shall perform the procedure of retopariksha as per SOP developed according to the latest WHO guidelines for semen analysis. The teacher shall address any mis-handling or difficulties incurred by the scholars.
Experiential-Learning 4.2	Retopariksha.report interpretation	The scholars shall review various reports of retopariksha and discuss each parameter to interpret the results in Ayurveda and Western medicine diagnosis, with rationality. The teacher shall address any difficulties incurred by the scholars while interpreting the results.
Experiential-	Procedure of Sperm	The scholars shall observe and analyze the operation and procedure of CASA and SFT as per SOP, when performed by

Learning 4.3	function tests and CASA.	consultants/ seniors. The teacher shall discuss the clinical aspects and address any difficulties incurred during the procedure.
Experiential-Learning 4.4	Application of SFTs in ART procedures.	The scholars shall review the recent researches in ART and present the updates of various SFTs in ART during class seminar.
Experiential-Learning 4.5	Procedure and interpretation of Penile & Scrotal Doppler	The scholars shall observe and analyze the procedure of penile and scrotal Doppler on patients during clinical posting and discuss the interpretation of the finding with the teacher.
Experiential-Learning 4.6	Research updates in penile & scrotal Doppler.	The scholars shall review the recent techniques and researches related to penile & scrotal Doppler and present in class seminar.
Experiential-Learning 4.7	Procedure and interpretation of CMS.	Under the guidance of the teacher/ consultant the scholars shall perform the procedure of CMS as per SOP and interpret the findings in relation with the dosha involved. The teacher shall address any mis-handling or difficulties incurred during the procedure.
Experiential-Learning 4.8	Recent researches in CMS and fertility.	The scholars shall review the recent researches related to CMS in infertility and present the updates during class seminar, followed by a group discussion which shall be concluded by the teacher.
Experiential-Learning 4.9	Procedure and interpretation of PCT.	Under the guidance of the teacher/ consultant the scholars shall perform the procedure of PCT as per SOP and interpret the findings. The teacher shall address any mis-handling or difficulties incurred during the procedure.
Experiential-Learning 4.10	Recent researches related to PCT and fertility.	The scholars shall review the recent researches related to PCT in infertility and present the updates during class seminar, followed by a group discussion which shall be concluded by the teacher.
Experiential-Learning 4.11	Procedure and interpretation of SMIT.	Under the guidance of the teacher/ consultant the scholars shall perform the procedure of SMIT as per SOP and interpret the findings. The teacher shall address any mis-handling or difficulties incurred during the procedure.
Experiential-Learning 4.12	Recent researches related to SMIT and fertility.	The scholars shall review the recent researches related to SMIT in infertility and present the updates during class seminar, followed by a group discussion which shall be concluded by the teacher.

Experiential-Learning 4.13	Researches in Karyotyping and associated management.	The scholars shall review the recent researches related to Karyotyping and present the updates during class seminar, followed by a group discussion which shall be concluded by the teacher.
Experiential-Learning 4.14	Recent researches in YCMD screening and associated management.	The scholars shall review the recent researches related to YCMD and present the updates during class seminar, followed by a group discussion which shall be concluded by the teacher.
Experiential-Learning 4.15	Recent researches in CFTR screening and associated management.	The scholars shall review the recent researches related to CFTR and present the updates during class seminar, followed by a group discussion which shall be concluded by the teacher.

### Modular Assessment

Assessment method	Hour
<p>Conduct a structured Modular assessment. The assessment will be for 75 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.</p> <p>1. Scholar will demonstrate the procedure and interpretation of report of retopariksha/ sperm function test/ penile and scrotal doppler (Practical demonstration 25 marks)</p> <p>the teacher will assess the following steps of scholar during procedure-sample collection and handling,microscopic examination,sperm vitality test,hypo-osmotic swelling test,skill based evaluation,documentation and reporting ,interpretation of results.</p> <p>2. Scholar will demonstrate the procedure and interpretation of report of cervical mucus study/ post coital test/ sperm mucus interaction technique (Practical demonstration 25 marks)</p> <p>The teacher will assess the following steps of scholar which are-sample collection technique,performance and interpretation of microscopic findings,reporting and results of the test.</p> <p>3. Scholar will explain the procedure and interpretation of report of karyotyping/ YCMD/ CFTR (Viva 10 marks)</p> <p>The teacher will assess the scholars rationale behind each step,identification of normal and abnormal reports,clinical implications of common abnormalities,interpretations of results.</p> <p>4. Presentation of a case where one of the diagnostic tests has been advised (Case presentation 15 marks)</p> <p>Teacher will assess the scholars clinical case taking skills,selection and justification of appropriate diagnostic tests,interpretation of the results.</p> <p>Or</p> <p>Any practical in converted form can be taken for assessment (40 Marks).</p> <p>and</p>	6

Any experiential as portfolio/reflections/presentations, can be taken as an assessment (35 Marks).

## Module 5 : Therapeutic Procedures

### Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the therapeutic procedures in male and female infertility and sexual dysfunctions.
2. Demonstrate the therapeutic procedures in male and female infertility and sexual dysfunctions.
3. Perform and assist in the therapeutic procedures performed in male and female infertility and sexual dysfunctions.

### Unit 1 Specialized chikitsa in reproductive system

- Male Uttara Basti
- Female Uttara Basti
- Sthanika chikitsa in male & female concerning to infertility & sexual dysfunction
- Semen Wash & Artificial Insemination

**References:** 56,57,98,99,100

3A	3B	3C	3D	3E	3F	3G
CO3,CO5	Discuss the classical procedure of MUB	1	Lecture	CAN	Knows-how	L&GD
CO3,CO5	Describe the current practices in MUB	1	Lecture	CE	Knows-how	BS,D
CO3,CO5	Perform the steps of MUB as advised in SOP	2	Practical Training 5.1	PSY-GUD	Shows-how	D
CO3,CO5	Demonstrate the procedure of uttara basti on male manikin as per SOP	2	Practical Training 5.2	PSY-GUD	Shows-how	D-M

CO3,CO5	Demonstrate the procedure of Paurusha basti on male manikin as per SOP	2	Practical Training 5.3	PSY-GUD	Shows-how	D-M
CO3,CO5	Enlist the steps of MUB observed when performed by consultants/ seniors on patients.	3	Experiential-Learning 5.1	PSY-SET	Shows-how	IBL
CO3,CO5	Assist during the procedure of MUB on patients when performed by consultants/ seniors and Discuss the difficulties arising of the procedure	3	Experiential-Learning 5.2	PSY-GUD	Does	CBL
CO3,CO5	Explore literatures and publications to understand the mode of action of MUB	3	Experiential-Learning 5.3	CAP	Knows-how	LS
CO3,CO5	Discuss the classical procedure of FUB	1	Lecture	CAN	Knows-how	L&GD
CO3,CO5	Describe the current practices in FUB	1	Lecture	CE	Knows-how	BS
CO3,CO5	Perform the steps of FUB and performing the steps as advised in SOP	2	Practical Training 5.4	PSY-GUD	Shows-how	D
CO3,CO5	Demonstrate the procedure of FUB on manikin as per SOP	2	Practical Training 5.5	PSY-GUD	Shows-how	D-M
CO3,CO5	Enlist the steps of FUB observed when performed by consultants/ seniors on patients	3	Experiential-Learning 5.4	PSY-SET	Does	IBL
CO3,CO5	Assist during the procedure of FUB on patients when performed by consultants/ seniors and Discuss the difficulties arising of the procedure	3	Experiential-Learning 5.5	PSY-GUD	Does	ECE
CO3,CO5	Explore literatures and publications to understand the mode of action of FUB	3	Experiential-Learning 5.6	CAP	Knows-how	LS
CO3,CO5	Distinguish the procedure of yoni prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga	1	Lecture	CAN	Knows-how	L&GD,L_VC



CO3,CO5	Reiterate the procedure of shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti	1	Lecture	CAN	Knows-how	L,L&GD, L_VC
CO3,CO5	Reiterate the procedure of vrushana abhyanga, vrushana lepa	1	Lecture	CAN	Knows-how	L,L&GD, L_VC
CO3,CO5	Discuss the contraindication of the sathanika chikitsa in male and female infertility and sexual dysfunctions	1	Lecture	CE	Knows-how	L,L&GD, L_VC
CO3,CO5	Perform the procedure of yoni prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga with assistance.	2	Practical Training 5.6	PSY-GUD	Shows-how	ECE
CO3,CO5	Perform the procedure of shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti with assistance.	2	Practical Training 5.7	PSY-GUD	Shows-how	ECE
CO3,CO5	Perform the procedure of vrushana abhyanga, vrushana lepa with assistance.	2	Practical Training 5.8	PSY-GUD	Shows-how	ECE
CO3,CO5	Explore literatures and publications to compile the data of yoni prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga for reproductive health	2	Experiential-Learning 5.7	CAP	Does	LS
CO3,CO5	Explore literatures and publications to compile the data of shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti for reproductive health	2	Experiential-Learning 5.8	CAP	Does	LS
CO3,CO5	Explore literatures and publications to compile the data of vrushana abhyanga, vrushana lepa for reproductive health	2	Experiential-Learning 5.9	CAP	Does	LS
CO3,CO5	Describe the various techniques of semen wash	1	Lecture	CAN	Knows-how	L,L_VC
CO3,CO5	Discuss the principles, indications and regulations of artificial insemination	1	Lecture	CAN	Knows-how	L,L&GD, L_VC
CO3,CO5	Demonstrate the technique of semen wash in laboratory and artificial insemination mechanism on manikin, as per SOP	2	Practical Training 5.9	PSY-GUD	Shows-how	D

CO3,CO5	Perform the semen wash technique as per SOP with assistance.	2	Practical Training 5.10	PSY-MEC	Shows-how	DL,D-M
CO3,CO5	Perform artificial insemination as per SOP with the assistance of the consultants/ seniors	2	Experiential-Learning 5.10	PSY-MEC	Does	DL,D-M
<b>Practical Training Activity</b>						
<b>Practical No</b>	<b>Name</b>	<b>Activity details</b>				
Practical Training 5.1	MUB according to SOP	The teacher shall discuss the practical aspects of MUB as per the developed SOP including the indications and contraindications based on patient's clinical presentation; pre-requisites including consent, fitness, time of procedure, sterilization of instruments; and detailed observations incurring during pre to post procedural administration. Under the observation of the teacher, the scholars shall perform MUB on manikin step by step, on referring to the SOP.				
Practical Training 5.2	Demonstration of the procedure of utara basti on male manikin as per SOP	The teacher shall discuss the queries and difficulties incurred by the scholars while performing utara basti on male manikin as per SOP. The teacher shall demonstrate the procedure of MUB on manikin as per SOP, and discuss the indications. The scholars shall re-demonstrate and practice the procedure of MUB on manikin without referring to the SOP.				
Practical Training 5.3	Demonstration of the procedure of Paurusha basti on male manikin as per SOP	The teacher shall discuss the queries and difficulties incurred by the scholars while performing Paurusha basti on male manikin as per SOP. The teacher shall demonstrate the procedure of MUB on manikin as per SOP, and discuss the indications. The scholars shall re-demonstrate and practice the procedure of MUB on manikin without referring to the SOP.				
Practical Training 5.4	FUB as advised in SOP	The teacher shall discuss the practical aspects of FUB as per the developed SOP including the indications and contraindications based on patient's clinical presentation; pre-requisites including consent, fitness, time of procedure, sterilization of instruments; and detailed observations incurring during pre to post procedural administration. Under the observation of the teacher, the scholars shall perform FUB on manikin step by step, on referring to the SOP.				
Practical Training 5.5	Demonstration of the procedure of FUB on manikin as per SOP	The teacher shall discuss the queries and difficulties incurred by the scholars while performing FUB as per SOP. The teacher shall demonstrate the procedure of FUB on manikin as per SOP. The scholars shall re-demonstrate and practice the procedure of FUB on manikin without referring to the SOP.				
Practical	Procedure of yoni	The teacher shall debrief and discuss the practical aspects of the sthanika chikitsa (yoni prakshalana, yoni pichu, yoni varti, yoni				

Training 5.6	prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga	kshara, yoni dhupana, yoni abhyanga) as per the SOP in various clinical presentations. The scholars shall observe the steps involved in administering the procedures by the consultant, including the indications, contraindications, pre-requisites, instruments & medications required, and detailed pre to post procedure. The scholars shall assist the consultant in performing the procedures as per SOP.
Practical Training 5.7	Procedure of shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti	The teacher shall debrief and discuss the practical aspects of the sthanika chikitsa (shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti) as per the SOP in various clinical presentations. The scholars shall observe the steps involved in administering the procedures by the consultant, including the indications, contraindications, pre-requisites, instruments & medications required, and detailed pre to post procedure. The scholars shall assist the consultant in performing the procedures as per SOP.
Practical Training 5.8	Procedure of vrushana abhyanga, vrushana lepa	The teacher shall debrief and discuss the practical aspects of the sthanika chikitsa (vrushana abhyanga, vrushana lepa) as per the SOP in various clinical presentations. The scholars shall observe the steps involved in administering the procedures by the consultant, including the indications, contraindications, pre-requisites, instruments & medications required, and detailed pre to post procedure. The scholars shall assist the consultant in performing the procedures as per SOP.
Practical Training 5.9	Demonstration of the technique of semen wash in laboratory and artificial insemination mechanism on manikin, as per SOP	The teacher shall conduct a group discussion on the clinical aspects of IUI technique including indication, consent, principle & procedure, legal aspects. The teacher shall demonstrate the technique of semen wash in laboratory, followed by administration of IUI on manikin, as per SOP. The scholars shall review the technique of semen wash and IUI as per the SOP, and discuss the doubts with the teacher.
Practical Training 5.10	Assisting in the semen wash technique as per SOP	The scholar shall observe the procedure of semen wash in laboratory when performed by the consultant/ senior. The scholar shall then practice the technique of semen wash in laboratory under the guidance of the consultant/ senior.

### Experiential learning Activity

Experiential learning No	Name	Activity details
Experiential-Learning 5.1	Observation of the procedure of MUB on	The teacher shall discuss the practical aspects of MUB as per the developed SOP including the indications and contraindications based on patient's clinical presentation; pre-requisites including consent, fitness, time of procedure, sterilization of instruments;

	patients when performed by consultants/ seniors	and detailed observations incurring during pre to post procedural administration. Under the observation of the teacher, the scholars shall perform MUB on manikin step by step, on referring to the SOP. The scholar shall observe the consultants and seniors while performing the procedure of MUB. The scholar shall make notes on the case condition, rationality of administering UB in the medical condition, the drug used and any difficulties incurred while performing the procedure and its management; all the points shall be discussed with the teacher/ consultant. The scholar shall follow up on the patient until the completion of the course of UB.
Experiential-Learning 5.2	Assisting in the procedure of MUB on patients when performed by consultants/ seniors	The scholar shall assist the consultants and seniors while performing the procedure of MUB. The scholar shall make notes on the case condition, rationality of administering UB in the medical condition, the drug used and any difficulties incurred while performing the procedure and its management; all the points shall be discussed with the teacher/ consultant. The scholar shall follow up on the patient until the completion of the course of UB.
Experiential-Learning 5.3	Literature and publication review to understand the mode of action of MUB	Under the guidance of the teacher, the scholars shall present an article involving the review, trails, recent updates if any related to MUB; discuss the mode of action of MUB in various uro-genital conditions; revise the SOP of MUB.
Experiential-Learning 5.4	Observation of the procedure of FUB on patients when performed by consultants/ seniors	The scholar shall observe the procedure of FUB on patients when performed by consultants and seniors. The scholar shall make notes on the case condition, rationality of administering UB in the medical condition, the drug used and any questions incurred while performing the procedure; all the points shall be discussed with the teacher/ consultant. The scholar shall follow up on the patient until the completion of the course of UB.
Experiential-Learning 5.5	Assisting in the procedure of FUB on patients when performed by consultants/ seniors	The scholar shall assist the consultants and seniors while performing the procedure of FUB. The scholar shall make notes on the case condition, rationality of administering UB in the medical condition, the drug used and any difficulties incurred while performing the procedure and its management; all the points shall be discussed with the teacher/ consultant. The scholar shall follow up on the patient until the completion of the course of UB.
Experiential-Learning 5.6	Literature and publication review to understand the mode of action of FUB	Under the guidance of the teacher, the scholars shall present an article involving the review, trails, recent updates if any related to FUB; discuss the mode of action of FUB in various uro-genital conditions; revise the SOP of FUB.
Experiential-Learning 5.7	Literatures and publication review to	Under the guidance of the teacher, the scholars shall present an article involving the review, trails, recent updates if any related to yoni prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga for reproductive health. The presentation

	compile the data of yoni prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga for reproductive health	shall be followed by group discussion by all scholars and concluded by the teacher.
Experiential-Learning 5.8	Literature and publication review to compile the data of shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti for reproductive health	Under the guidance of the teacher, the scholars shall present an article involving the review, trails, recent updates if any related to shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti for reproductive health. The presentation shall be followed by group discussion by all scholars and concluded by the teacher.
Experiential-Learning 5.9	Literature and publication review to compile the data of vrushana abhyanga, vrushana lepa for reproductive health	Under the guidance of the teacher, the scholars shall present an article involving the review, trails, recent updates if any related to vrushana abhyanga, vrushana lepa for reproductive health. The presentation shall be followed by group discussion by all scholars and concluded by the teacher.
Experiential-Learning 5.10	Assisting the consultants/ seniors in performing artificial insemination as per SOP	The scholar shall observe the procedure of IUI when performed by the consultant/ senior on patient. The scholar shall make notes of the case, rationality of prescribing IUI and revise the procedure in detail. The scholar shall then assist in the procedure of IUI when performed by the consultant/ senior.

### Modular Assessment

#### Assessment method

Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each

#### Hour

4

module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

1. Scholar will demonstrate any one of the therapeutic procedures in male infertility and sexual dysfunction (Practical demonstration 25 marks)

The teacher will assess therapeutic procedures demonstrated by scholar includes the skill, baseline evaluation before the therapy, handling of the patients and instrument, documentation, outcome and complication handling in male infertility and sexual dysfunction.

2. Scholar will demonstrate any one of the therapeutic procedures in female infertility and sexual dysfunction (Practical demonstration 25 marks)

The teacher will assess therapeutic procedures demonstrated by scholar includes the skill, baseline evaluation before the therapy, handling of the patients and instrument, documentation, outcome and complication handling in female infertility and sexual dysfunction.

Or

Any practical in converted form can be taken for assessment (25 Marks).

and

Any experiential as portfolio/reflections/presentations, can be taken as an assessment (25 Marks).

## Module 6 : Pharmacology

### Module Learning Objectives

(At the end of the module, the students should be able to)

1. Mode of action , application, pharmacodynamics, Pharmacokinetics and bio Informatic mechanism of various drugs used in Geriatrics
2. Mode of action, application, Pharmacodynamics, Pharmacokinetics and bio Informatic mechanism of drugs used in Reproductive health of both male and female

### Unit 1 Geriatric Pharmacology

- Mode of action of drugs used in metabolic and geriatric regulation
- Discuss the concept, application, pharmacodynamics and pharmacokinetics of the group of vayahsthapana gana, ayuskara, balya and brumhana, santarpana.
- Describe the bioinformatics mechanism of drugs belonging to vayahsthapana gana, ayuskara, balya and brumhana, santarpana.

**References:** 42,45,47,78,79

3A	3B	3C	3D	3E	3F	3G
CO1,CO5	Apply the geriatric metabolism, Physiological changes, Implications of drug metabolism in aging	1	Lecture	CE	Knows-how	L&PPT
CO1,CO2,CO5	Identify the role of agni and srotas, oja, bala, enzymes, hormones in Geriatric metabolic regulation.	1	Lecture	CAP	Know	DIS
CO1,CO5	Categorize system specific Rasayana Yogas in common metabolic disorders and their mode of actions.	1	Lecture	CAN	Knows-how	BS,DIS
CO1,CO2	Demonstrate metabolic changes in older adults	2	Practical Training 6.1	CE	Knows-how	CBL
CO6	Explain the to mode of drug absorption under different physiological conditions.	2	Practical	CAN	Knows-	JC,L_VC

			Training 6.2		how	
CO2	Demonstrate case studies of elderly individuals with agni vikara.	2	Practical Training 6.3	CAN	Knows-how	L&GD
CO2	Enlist the Physiological changes that impact metabolic function in aged through observation, clinical examination and lab reports including hormonal changes	3	Experiential-Learning 6.1	CAN	Knows-how	RLE
CO2	Analyse clinical cases of age-related hormonal imbalances and compile their metabolic effects.	3	Experiential-Learning 6.2	CAN	Knows-how	PrBL
CO2,CO5	Formulate an integrative protocol for Rasayana-based treatment plans for elderly individuals with metabolic disorders	3	Experiential-Learning 6.3	CS	Knows-how	RP
CO1,CO4,CO5	Evaluate the Dravya Karmukata of Anti-ageing, Anti-oxidants, Adaptogenic Anti Alzheimer's , Anxiolytics , Anti-depressant drugs.	1	Lecture	CE	Knows-how	L&PPT
CO1,CO5,CO8	Evaluate the Dravya Karmukata of Agnideeptikara, Intestinal mobility regulators, Vatanulomaka, Medhya Rasayanas, Ajarsrika Rasayna, Achara rasayana Srotoshodhana, Vrishya and Sandhaniya drugs.	1	Lecture	CE	Knows-how	L&PPT
CO2,CO4,CO6,CO8	Discuss the Dravya Karmukata of shodhaniya, <i>shamaniya</i> , <i>Nidrajanaka</i> Dravyas in geriatric patients	1	Lecture	CE	Knows-how	BS
CO3,CO6,CO7	Discuss various formulations and the influence of aging in drug absorption and distribution	2	Practical Training 6.4	PSY-GUD	Shows-how	L_VC
CO1,CO2,CO5,CO6	Estimate the Aushadha Matra in elderly patients.	2	Practical Training 6.5	CAN	Knows-how	CBL
CO1,CO2,CO4,CO5,CO6,CO8	Design the Rasayana regimens for elderly patients according to various clinical conditions	2	Practical Training 6.6	CE	Knows-how	CBL



CO1,CO2,CO5,CO6,CO7	Compare studies between Ayurvedic and modern pharmacology of geriatric drugs using peer review/ research articles	2	Experiential-Learning 6.4	CAN	Knows-how	BS,DIS
CO1,CO2,CO5,CO6	Compile the outcomes of rasayana related case studies	2	Experiential-Learning 6.5	CAN	Knows-how	CBL
CO1,CO2,CO4,CO5,CO8	Evaluate Rasayana applications and outcomes in geriatric care units.	2	Experiential-Learning 6.6	CE	Knows-how	CBL
CO1,CO6	Categorise the concept, indications, rasapanchaka of the group of Jarahara vayahsthapana gana, Ayuskara, Balya ,Brumhana, and Santarpana drugs with respect to Rasayana.	1	Lecture	CE	Knows-how	L&PPT
CO1,CO6	Evaluate the Dravya Karmukatva of the group of Jarahara vayahsthapana gana, Ayuskara, Balya ,Brumhana, and Santarpana drugs	1	Lecture	CE	Knows-how	L&PPT
CO1,CO5,CO6	Discuss the effects of Guna of Jarahara, vayahsthapana gana, Ayuskara, Balya ,Brumhana and Santarpana drugs at the dosha, dhatu and srotas levels	2	Practical Training 6.7	CE	Knows-how	DIS
CO1,CO4,CO5,CO6,CO7	Demonstrate clinical application of group of Jarahara, vayahsthapana gana, Ayuskara, Balya ,Brumhana, and Santarpana drugs as Rasayana chikitsa.	2	Practical Training 6.8	CE	Knows-how	L&PPT
CO5,CO6,CO7,CO8	Document cases where Rasayana are used noting patient outcomes and therapeutic benefits.	3	Experiential-Learning 6.7	CAN	Knows-how	CBL
CO1,CO2,CO5,CO6,CO7,CO8	Conclude the findings in the cases to explore the effects of Rasayana on specific health conditions, such as aging or malnutrition.	3	Experiential-Learning 6.8	CAN	Knows-how	PrBL
CO1,CO5,CO6,CO8	Discuss the scope of bioinformatics for Rasayana dravya	1	Lecture	CK	Knows-how	L&PPT
CO1,CO5,CO6,CO8	Discuss the scope of bioinformatics for Vajikarana dravya	1	Lecture	CK	Knows-how	L&PPT

CO1,CO2,CO5	Demonstrate of bioinformatics approaches in Rasayana and Vajikarana dravya	2	Practical Training 6.9	CE	Knows-how	DIS,EDU
CO1,CO2,CO6,CO8	Analyse biochemical pathways in the context of rasayana.	2	Practical Training 6.10	CAN	Knows-how	BS,DIS
CO1,CO6,CO8	Review various research articles with respect to biochemical pathways on effect of Rasayana.	3	Experiential-Learning 6.9	CE	Knows-how	LS
CO1,CO3,CO5,CO6,CO8	Compile the rearch work related to the effect of Rasayana through gene expressions	3	Experiential-Learning 6.10	CC	Knows-how	LS
<b>Unit 2 Reproductive Pharmacology</b> <ul style="list-style-type: none"> <li>◦ Mode of action of drugs used in male and female reproductive regulation</li> <li>◦ Discuss the concept, application, pharmacodynamics and pharmacokinetics of the group of Shukra janana, shodhana, pravartaka, sthambaka, shukrala, shoshaka, Arthava janana, prajasthapana</li> <li>◦ Describe the bioinformatics mechanism of drugs belonging to Shukra janana, shodhana, pravartaka, sthambaka, shukrala, shoshaka, Arthava janana, prajasthapana</li> </ul> <b>References:</b> 45,47,78,79						
<b>3A</b>	<b>3B</b>	<b>3C</b>	<b>3D</b>	<b>3E</b>	<b>3F</b>	<b>3G</b>
CO1,CO2,CO6	Evaluate the mode of action of drugs on testosterone levels, Erectile function, Prostate health, Vajikarana, Hormonal Regulatory drugs, Vrishya Balya, Rasayana ,Brimhana drugs	1	Lecture	CK	Knows-how	L_VC
CO1,CO5,CO7,CO8	Analyze the mode of action of a dravya for its Rasayana and Vrushya property in a clinical scenario	2	Practical Training 6.11	CAN	Knows-how	CBL
CO2,CO4,CO5,CO6	Design management protocol for hormonal disorders.	3	Experiential-Learning 6.11	CAP	Knows-how	CBL
CO1,CO2	Discuss the mechanisms of oestrogen, progesterone in regulating the Rituchakra and Garbhini.	1	Lecture	CC	Knows-how	L_VC

CO1,CO2,CO6	Assess combined and progestin-only contraceptives' mechanisms	1	Lecture	CC	Knows-how	L_VC
CO1,CO2,CO4	Analyze the mechanism of hormonal feedback	2	Practical Training 6.12	CAN	Knows-how	CBL,L_VC
CO1,CO2,CO4	Demonstrate androgen receptor pathways and drug mechanisms	2	Practical Training 6.13	CAN	Knows-how	L_VC
CO1,CO2	Discuss the cases on hormone-driven reproductive conditions	3	Experiential-Learning 6.12	CE	Knows-how	PL
CO1,CO2,CO5,CO6,CO8	Analyse the Impact of hormonal therapies on female reproductive health.	3	Experiential-Learning 6.13	CAN	Knows-how	CBL
CO1,CO2,CO5,CO6,CO7,CO8	Categorize the indications, Rasapanchaka , Karmukatva of the group of drugs -Shukra-Janaka, Shodhaka, Pravartaka , Sthambaka, Shukrala, Shoshaka, ShukraTaralyahara , Virya vardhaka Kamottejaka , Kaamodipka Arthava Janaka, Prajasthapana, Garbhashthapaka drug	1	Lecture	CAN	Knows-how	L&PPT
CO1,CO2,CO5,CO6,CO7,CO8	Discuss the cases of Purush Vyandhatva treated with vrushya dravya as per various classification	2	Practical Training 6.14	CE	Knows-how	CBL
CO2,CO3,CO6,CO7,CO8	Compile the pharmacological aspects of vrushya dravya and its application in case of vandhyatwa	2	Experiential-Learning 6.14	CE	Knows-how	CBL
CO1,CO2,CO6,CO8	Discuss the disease-modifying mechanisms of rasayana and vrushya dravya through bioinformatics	1	Lecture	CAN	Knows-how	L&GD
CO1,CO6	Compare metabolic profiles pre and post-treatment using literature available from bioinformatics research	2	Practical Training 6.15	CE	Knows-how	DIS,JC
CO2,CO6	Explore the data generated through various bioinformatics techniques to understand the pharmacology of Rasayana and Vajikarana dravya	1	Experiential-Learning 6.15	CAN	Knows-how	JC,PrBL

Practical Training Activity		
Practical No	Name	Activity details
Practical Training 6.1	Demonstration of metabolic changes in older adults based on clinical examination and investigation reports	Teachers will select certain geriatric cases from the IPD. The students will be asked to review the case studies related to metabolic changes and hormonal regulations including alterations in energy expenditure, nutrient utilization, compared with the investigations reports and present the same. The teacher or other faculties from department will give concluding remarks on the review of the cases.
Practical Training 6.2	Drug absorption under different physiological conditions (e.g., elderly versus young adults)	The teacher will show the mode of drug absorption by various possible means eg. video demonstration or literature review, under different physiological conditions (e.g., elderly versus young adults). The students will search the same in another case.
Practical Training 6.3	Demonstration of case studies of elderly individuals with impaired Agni vikara and metabolic disorders by case discussions.	Teachers will select certain geriatric cases from the OPD/IPD. The students would be asked to review these cases according to the symptoms, pathology and diagnosis. The emphasis should be given on impaired Agni and metabolic disorders, such as indigestion or malabsorption The entire Samprapti (pathogenesis) should be mapped by the students and presented in the department. The teacher or other faculties from department will give concluding remarks on the case presentation
Practical Training 6.4	Discussion on the influence of age on drug absorption and distribution with examples	Teacher will explain the objective of the practical session. The Students will be given case scenarios and instructed to analyse the mode of action of drug and its possible action in the patient emphasizing the aging influence on drug absorption and distribution.
Practical Training 6.5	Modification of aushadha Matra in geriatric patient based on pharmacokinetic data	The teacher will present a case study of an elderly patient with multiple Upadhravas and explain the changes made in Aushadha Matra according to Upadhravas. The teacher will select a case of OPD of an elderly patient and ask the students to calculate the appropriate drug dosages, considering reduced body weight, renal clearance, and liver function etc. the teacher will then conclude on the same

Practical Training 6.6	Rasayana regimens for elderly patients with varying clinical conditions through case studies	The teacher will select a case of OPD of an elderly patients and discuss common Rasayana Used for varying clinical conditions i.e recurrent respiratory infections , immune enhancers ,cognitive decline etc. ask the students to present the appropriate dosages and possible interactions with other medications. the teacher will then conclude on the same.
Practical Training 6.7	Discussion of guna karma of various dravya indicated in jara avastha	The teacher will demonstrate a case where in teacher will discuss the effect of Jarahara ,Vayahsthapana Gana, Ayuskara, Balya , Brumhana and Santarpana drugs used in different clinical conditions . We have Assigned Interactive discussion in TL Method .hence it should be in discussion not demonstration
Practical Training 6.8	Clinical application group of dravya indicated in jara avastha for Rasayana prayoga.	The teacher will choose the case of opd and will demonstrate indications of jarahara ,vayahsthapana gana, ayuskara, balya , brumhana and santarpana drugs in different clinical condition i.e (vayasthapana gana in premature aging, weakness, low energy, and fatigue).Multiple cases required and ask students to demonstrate it.
Practical Training 6.9	Demonstration of bioinformatics approaches in Rasayana and Vajikarana dravya	The department should organize a workshop for the sensitization and demonstration of the utility of bioinformatics approaches for Rasayana and Vajikarana dravyas. The student should participate in the hands on training in bioinformatics and present the findings of any one drug.
Practical Training 6.10	Discussions of biochemical pathways (e.g., antioxidant pathways, inflammatory cascades) and its application in understanding rasayana action	The teacher will demonstrate PowerPoint presentation on the key biochemical pathways, including: Antioxidant pathways (role of glutathione, catalase, superoxide dismutase) and Inflammatory pathways (NF-kB, COX-2, and pro-inflammatory cytokines). The teacher will ask the students to demonstrate through power point presentation and discuss how rasayana modulate these pathways to rejuvenate tissues, reduce inflammation, and promote longevity.
Practical	Clinical application of	The teacher will select a case from the opd and assign drugs to them the students will explain the selection of drugs and

Training 6.11	rasayana and vrushya dravya in patients with rationality.	pharmacodynamics of the particular drugs according to the clinical condition and their effect as vrishya and rasayana.
Practical Training 6.12	Mechanism of hormonal feedback	The teacher will demonstrate a video clip which shows a quick chart summarizing the hormonal feedback mechanisms. The student have to identify the OPD cases where there is hormonal feedback mechanisms failure
Practical Training 6.13	Mechanism of Androgen receptor pathways and drug	Teacher will demonstrate a video clip how different drugs affect the androgen pathway and student will demonstrate another drug in androgen receptor pathways and its dug mechanism.
Practical Training 6.14	Clinical case presentation of Purush Vyandhatva treated with vrushya dravya as per various classification	Teacher will select multiple cases of OPD with purusha vandhyatva and explain in detail the clinical indication of Shukra-Janaka, Shodhaka, Pravartaka, Sthambaka, Shukrala, Shoshaka, ShukraTaralyahara ,Virya vardhaka , Kamottejaka , Kaamodipka drugs. Ask the students to summarise the actions of the above drugs.
Practical Training 6.15	Comparison of metabolic profiles pre and post-treatment using literature available from bioinformatics research	The teacher will conduct a group activity by presenting/ reviewing various research articles on bioinformatics approach in metabolic process. The students should utilize the knowledge and apply in Ayurveda concept

### Experiential learning Activity

Experiential learning No	Name	Activity details
Experiential-Learning 6.1	Approach to geriatric case emphasizing on metabolic dysfunction	Student will review real-world case studies of elderly individuals, focusing on metabolic changes related to age: Analyse symptoms i.e. weight fluctuations, changes in muscle mass, skin condition, hydration levels, etc.; Students will assess the geriatric patients, emphasizing observation of metabolic markers like weight, blood pressure and also review the lab reports such as blood tests that measure thyroid function (TSH, T3, T4), insulin levels, glucose metabolism, lipid profiles, and liver function; Students should compare these results with baseline values in younger individuals.

Experiential-Learning 6.2	Compilation of clinical cases of age-related hormonal imbalances and their metabolic effects (e.g., hypothyroidism, insulin resistance).	Students will analyse the geriatric cases and metabolic effects, based on clinical guidelines and will mock appropriate treatment strategies with dietary recommendations, medications. They will note the changes in lab results and clinical symptoms over time, considering the metabolic improvements or challenges (e.g., hypothyroidism, insulin resistance) and will prepare the compilation work of 5 cases OPD/IPD.
Experiential-Learning 6.3	Integrative approach of metabolic disorders in geriatric population	Students will role-play as practitioners, diagnosing metabolic disorders and prescribing appropriate Ayurvedic formulations along with modern medications and Dietary Recommendations for disease prevention and aging. Students will emphasize on selection of Rasayana in the said condition, with rationality.
Experiential-Learning 6.4	Comparative studies between Ayurvedic and modern pharmacology of geriatric drugs using peer review/research articles	The teacher will make groups and Assign each group a geriatric condition to research and compare (e.g., hypertension, arthritis, cognitive decline, diabetes, depression, insomnia). Modern pharmacological drugs used for their assigned condition and Ayurvedic treatments used for the same condition. Each group will discuss after researching and finding peer-reviewed articles comparing the modern pharmacological approach (pharmaceutical drugs) and the Ayurvedic approach (herbal medicines and formulations) for their assigned conditions. Each group will discuss and present their findings to the class, explaining their comparative analysis of the modern pharmacological and Ayurvedic treatments for their assigned geriatric condition.
Experiential-Learning 6.5	Documentation of the outcome case studies involving Rasayana therapies.	Student will select a case of OPD and observe the impact of Rasayana and document the outcomes of both positive and negative in various clinical conditions. They should document initial baseline values (before treatment) and compare these with values after Rasayana therapy.
Experiential-Learning 6.6	Applications and outcomes of Rasayana in geriatric care units.	Students will evaluate how Rasayana therapies can be effectively implemented in geriatric units and track patient outcomes by selecting a case. Students will be divided into groups and each group will receive a case study profile of an elderly patient currently residing in a geriatric care unit. Groups will then be tasked with developing an appropriate Rasayana therapy regimen and its outcome according to their clinical conditions. After all groups have presented, students will discuss on the overall effectiveness of Rasayana therapies in elderly care units.

Experiential-Learning 6.7	Impact of rasayana and its benefits in various clinical conditions	Student will select a case of OPD and observe the impact of Rasayana and document the outcomes of both positive and negative in various clinical conditions. The teacher will Distribute one case study to each group. Each Groups will discuss the case study and formulate a treatment plan that includes: Rasayana and its benefit according to the clinical conditions.
Experiential-Learning 6.8	Effects of Rasayana on specific health conditions, such as aging or malnutrition.	Student will choose five cases from OPD and document the findings of effect of rasayana in specific clinical condition such as ageing and malnutrition and prepare a project work
Experiential-Learning 6.9	Research updates with respect to biochemical pathways on the effect of Rasayana.	Student will review various research articles with respect to biochemical pathways on effect of Rasayana in library and make a note of the findings
Experiential-Learning 6.10	Effect of Rasayana through gene expressions	The student will review 10 recent research advances and do a compilation work on the effect of Rasayana through gene expressions.
Experiential-Learning 6.11	Management of hormonal disorders by designing a protocol for rasayana prayoga	Students will be given an old case of OPD with different hormonal disorder each student will analyse the case study findings and suggest treatment protocol as a mock practise.
Experiential-Learning 6.12	Case discussion on hormone-driven reproductive conditions	Students will exhibit cases on different hormone-driven reproductive disorders, their causes, symptoms, and treatment strategies by peer review of cases of opd. Students will also discuss hormonal imbalances leading to reproductive disorders.
Experiential-Learning 6.13	Impact of hormonal therapies on female reproductive health.	Teacher will Assign students different case studies of opd to analyse as how different hormonal components (Estrogen, Progesterone, LH, FSH) act and analyse the impact of hormonal therapies on reproductive health. Students will analyse the cases and submit a compilation work of the same.
Experiential-Learning 6.14	Compilation of the pharmacological aspects	The studnets will compile the pharmacological aspects of drugs belonging to Shukra - Janaka, Shodhaka, Pravartaka, Sthambaka, Shukrala, Shoshaka, ShukraTaralyahara, Virya vardhaka, Kamottejaka, Kaamodipka, through ayurveda and contemporary research



	of vrushya dravya and its application in case of vandhyatwa	articles.. Each student shall summarise the findings of drugs of each gana, present in class seminar and submit the compilation. The presenttaion will be follwed by discussion and the teacher will conclude on the clinical application of the findings.
Experiential-Learning 6.15	Reviewing data generated through various bioinformatics techniques to understand the pharmacology of Rasayana and Vajikarana dravya	The student should review and compile various articles related to bioinformatics techniques to understand the pharmacology of Rasayana and Vajikarana dravya. The student should present in class seminar followed by group discussion. The teacher will conclude the discussion.

### Modular Assessment

Assessment method	Hour
<p>Conduct a structured Modular assessment. The assessment will be for 75 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.</p> <p>1. Scholar will present the pharmacological aspects of a formulation in geriatric health (Practical Viva 20 marks) Teacher will assess based on his presentation which includes pharmacodynamics and pharmacokinetics , route of administration , therapuetic affectiveness, toxicological profile of the drug has been covered in the presentation.</p> <p>2. Scholar will present the pharmacological aspects of a formulation in reproductive health (Practical Viva 20 marks) Teacher will assess based on his presentation which includes pharmacodynamics and pharmacokinetics , route of administration , therapuetic affectiveness, toxicological profile of the drug in reproductive health has been covered in the presentation.</p> <p>3. Scholar will present the pharmacological aspects of ekamulika dravya in geriatric or reproductive health (Practical Viva 15 marks) Teacher will assess based on his presentation which includes pharmacodynamics and pharmacokinetics , route of administration , therapuetic affectiveness, toxicological profile of the ekamulika dravya in geriatric or reproductive health has been covered in the presentation.</p> <p>4. Scholar will assess a geriatric or reproductive case and explain the rationality of selection of treatment (Practical Viva 20 marks) The teacher will asses the scholars systemetic evaluation of patients case ,appropriate diagnosis ,rationality of selection of treatment plan and medication therapy .</p> <p>Or</p>	6

Any practical in converted form can be taken for assessment (45 Marks).

and

Any experiential as portfolio/reflections/presentations, can be taken as an assessment (30 Marks).

## Module 7 : Establishment of Clinical Set up

### Module Learning Objectives

(At the end of the module, the students should be able to)

1. Identify the key components in the establishment of Rejuvenative, Geriatric and Reproductive Clinical setup.
2. Describe the various healthcare Regulations and Compliance.
3. Utilize the health information systems including Electronic Health Records tele consultation into the clinical setup for clinical documentation and communication.

### Unit 1 Rejuvenative & geriatric centre

- Setting up of Rejuvenative & geriatric centre
- Statutory requirements for clinical set up
- Rules and regulations
- Certification
- Ethical Issues
- Medical record documentation
- Tele-consultation

### References: 68

3A	3B	3C	3D	3E	3F	3G
CO4,CO5	Describe the legal requirements for setting up of Rejuvenation and geriatric centre	1	Lecture	CC	Knows-how	L&PPT ,TUT
CO1,CO2	Identify the pre-requisites for setting up of Rejuvenation and geriatric centre by observing existing centres	2	Practical Training 7.1	CAN	Knows-how	FV
CO2,CO4	Execute integrative sessions with geriatric and Rejuvenate care specialist, on design	3	Experiential-	CAN	Knows-	TBL

	implementation and successful models of geriatric and rejuvenate care centres .		Learning 7.1		how	
CO2,CO5,CO8	Explore the statutory requirements and legal frameworks for establishment of Rejuvenation and geriatric care centres	1	Lecture	CC	Knows-how	L&PPT
CO2,CO5,CO7	Demonstrate legal requirements for setting up of Rejuvenation and geriatric centre	2	Practical Training 7.2	CAN	Knows-how	DIS
CO2,CO5,CO8	Execute the accreditation process , creating policies and conducting internal audits	3	Experiential-Learning 7.2	PSY-GUD	Shows-how	RP
CO1,CO4,CO8	Enlist the various certification requirements, ethical issues and quality standards relevant to Rejuvenation and Geriatric care centres.	1	Lecture	CC	Knows-how	L&PPT
CO2,CO4	Describe the various certification requirements, ethical issues accreditation bodies and quality standards relevant to Rejuvenation and Geriatric care centres.	2	Practical Training 7.3	PSY-GUD	Shows-how	RP
CO1,CO4,CO8	Discuss the policies and procedures for Rejuvenation and geriatric care centres by group discussion	3	Experiential-Learning 7.3	CAP	Shows-how	DIS
CO2,CO3	Describe the medical record documentation with legal requirements in Rejuvenation and geriatric care settings	1	Lecture	CC	Knows-how	DIS
CO1,CO4	Create, update and review medical records for elderly patients, electronic health record (EHR) system.	2	Practical Training 7.4	PSY-GUD	Shows-how	SIM
CO2,CO5,CO8	Execute documentation including admissions, transfers, and discharges in electronic health record (EHR) system	3	Experiential-Learning 7.4	PSY-GUD	Shows-how	SIM
CO1,CO4	Summarise the various technologies and platforms available for tele-consultation, such as video conferencing tools, remote monitoring devices, and patient portals, and how they are applied in geriatric care.	1	Lecture	CC	Knows-how	L,L&PPT
CO2,CO5	Assess patient conditions, provide advice, and offer treatment options remotely, over tele-consultation	2	Practical Training 7.5	AFT-RES	Does	RP

CO1,CO4,CO7	Analyse and experience using remote monitoring tools and collecting data for tele-consultations , documentation, ensuring comprehensive patient assessments and continuity of care in Rejuvenation and geriatric settings .	3	Experiential-Learning 7.5	AFT-RES	Does	FV,RLE
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## Unit 2 Reproductive centre

- Setting up of Reproductive centre
- Statutory requirements for clinical set up
- Rules and regulations
- Certification
- Ethical Issues
- Medical record documentation
- Tele-consultation

**References:** 68,80

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5,CO6,CO7,CO8	Plan and design of a reproductive centre - site selection, infrastructure requirement and design space for multidisciplinary care.	1	Lecture	CC	Knows-how	L&PPT
CO2,CO4,CO6	Identify the pre-requisites for setting up of Reproductive centre by observing existing centres	2	Practical Training 7.6	PSY-MEC	Shows-how	DIS
CO2,CO4,CO5,CO8	Execute integrative sessions with Reproductive care specialist, on designing implementation and successful models of Reproductive care centres .	3	Experiential-Learning 7.6	CAN	Knows-how	IBL
CO2,CO7,CO8	Interpret statutory requirements and legal frameworks for establishment of Reproductive care centres which includes licenses, permits, and certifications.	1	Lecture	CAP	Knows-how	L&PPT
CO7,CO8	Discuss the legal requirements for setting up of Reproductive care centres	2	Practical Training 7.7	CE	Knows-how	DIS

CO6,CO7,CO8	Execute the accreditation process, creating policies and conducting internal audits	3	Experiential-Learning 7.7	PSY-MEC	Shows-how	RP,TPW
CO7,CO8	Rationalize the various certification requirements, ethical issues accreditation bodies, and quality standards relevant to Reproductive care centres.	1	Lecture	CK	Knows-how	L&PPT
CO6,CO7,CO8	Implement various certification requirements, ethical issues accreditation bodies and quality standards relevant to Reproductive care centres .	2	Practical Training 7.8	PSY-GUD	Shows-how	TPW,TBL
CO5,CO6,CO7,CO8	Execute implementation of policies and procedures for Reproductive care centres.	3	Experiential-Learning 7.8	PSY-GUD	Does	RP
CO6,CO7	Describe the medical record documentation with legal requirements in Reproductive centre care settings	1	Lecture	CE	Knows-how	L&PPT
CO6,CO7,CO8	Create, update and review medical records in electronic health record (EHR) system.	2	Practical Training 7.9	PSY-MEC	Shows-how	RP
CO6,CO7	Document various procedures like admissions, transfers, and discharges in electronic health record (EHR) system.	2	Experiential-Learning 7.9	PSY-MEC	Shows-how	SIM,TBL
CO4,CO5,CO6,CO7,CO8	Discuss the various technologies and platforms available for tele-consultation, such as video conferencing tools, remote monitoring devices, and patient portals, and how they are applied in Reproductive centre.	1	Lecture	CAP	Knows-how	L&PPT
CO6,CO7	Assess patient conditions, provide advice and offer treatment options remotely, over tele-consultation.	2	Practical Training 7.10	AFT-SET	Knows-how	PAL,PL

### Practical Training Activity

Practical No	Name	Activity details
Practical Training 7.1	Pre-requisites for setting up of Rejuvenation and geriatric centre	The department shall organize a field visit to a Rejuvenation and geriatric centre. On returning, the teacher will make groups and assign different aspects of rejuvenation and geriatric centre. The students will describe their observations and discuss on designing a clinical set up. The students can supplement their discussion by power point presentation/ animation/ charts.

Practical Training 7.2	Legal requirements for setting up of Rejuvenation and geriatric centre	Teacher will identify an issue about legal sop (Standard Operating Procedure) for setting up of Rejuvenation and geriatric centre.  The students can exhibit their answers/solutions through Group discussions.
Practical Training 7.3	Statutory requirements relevant to Rejuvenation and Geriatric care centres.	Teacher will ASSERT ON the various certification requirements, ethical issues accreditation bodies and quality standards relevant to Rejuvenation and Geriatric care centres. Teacher will divide students into team and each team will role play the process of filling mock application
Practical Training 7.4	Documentation of geriatric case in electronic health record (EHR) system.	Teacher will provide mock data to the students and The students will then process the input, update, and retrieve patient records by using a mock or simulated electronic health record (EHR) system.
Practical Training 7.5	tele-consultations to assess patient conditions, provide advice, and offer treatment options remotely.	Teacher will Demonstrate professional mock tele-consultation, cover How to start a virtual consultation (building rapport, consent, and data privacy),Assessing patient symptoms remotely (video, voice, questionnaire-based evaluation),Providing medical advice, lifestyle modifications, and treatment options and Documenting and prescribing in a telehealth setting. Students will perform a role-based tele-consultations in groups of three (Doctor, Patient, Observer).
Practical Training 7.6	Pre-requisites for setting up of Reproductive centre by observing existing centres	The students will summarize the information based on the theory session about Key Considerations in Reproductive Centre Design IN A flowchart software or hand drawn sketches.
Practical Training 7.7	Legal requirements for setting up of Reproductive care centres	Teacher will explain the legal requirements for setting up of reproductive care centre like Licensing & Permits, Health & Safety Standards, Patient Rights & Confidentiality, Medical Staff Certification & Qualifications, Ethical Considerations & Consent Procedures. Students and teacher will discuss the procedure to develop a checklist of legal requirements for setting up of Reproductive care centres .
Practical	Application for various	Teacher will reflect on the challenges and importance of proper accreditation and ethical compliance and Discuss on how

Training 7.8	accreditation bodies relevant to Reproductive care centres	accreditation impacts patient safety, legal security, and service quality in reproductive care centers. Students will be divided into groups and Each group will work on filling up of a mock application for certification requirements, ethical issues accreditation bodies and quality standards relevant to Reproductive care centres .
Practical Training 7.9	Reviewing medical records in health record (EHR) system.	Teacher will show the procedure of filling up of application of policies , review medical records using a mock or simulated electronic health record (EHR) system. Students will mock practise the same after explanation by teacher
Practical Training 7.10	Assessing reproductive health over tele-consultation	Teacher will show a mock tele consultation process on how to assess patient conditions, provide advice, and offer treatment options remotely. Students will perform a mock teleconsultation guided by peers.
<b>Experiential learning Activity</b>		
<b>Experiential learning No</b>	<b>Name</b>	<b>Activity details</b>
Experiential-Learning 7.1	Designing sessions on implementation and successful models of geriatric and rejuvenate care centres .	The Students will form interdisciplinary teams to discuss about an ideal Geriatric and Rejuvenation Centreintegrating Ayurvedic and modern care principles, including the factors infrastructure layout, patient care work flow and essential services and staff. The students will interview and interact with geriatric and rejuvenate care centres specialist and collect info and clarification about the above mentioned points.
Experiential-Learning 7.2	Process of accreditation, creating policies and conducting internal audits	Teacher will divide students into teams and Conduct a Mock Audit based on NABH/AYUSH quality standards for accreditation and policies
Experiential-Learning 7.3	Discussion on implementation of policies and procedures	Students will be divided into teams for discussion of different policy domains and execution for rejuvenation and geriatric care centres. Teams simulate a real-life policy implementation challenge (e.g., handling a geriatric emergency, infection control, ethical dilemma).



	for Rejuvenation and geriatric care centres	Other teams will assess the response based on predefined policies.
Experiential-Learning 7.4	Documentation of patient records in electronic health record (EHR) system	students will be divided into teams and each team will be assigned a mock elderly patient case and must document the admissions, transfers, and discharge details by simulated electronic health record (EHR) system
Experiential-Learning 7.5	Demonstration of tele-consultation	Students will be divided into teams to simulate remote patient monitoring & documentation. Each team is assigned a mock elderly patient needing remote care. Team will Analyse the Remote Data & Assess Patient Condition by conducting Mock Tele-Consultation Based on Data Collected. The student will present and discuss regarding the challenges and limitations incurred in the process of tele-consultation and follow ups.
Experiential-Learning 7.6	Designing sessions on implementation and successful models of Reproductive care centres.	students will engage in interactive sessions with reproductive care specialists to understand the design, implementation, and management of successful reproductive care centres. students will be grouped into Teams and they will discuss on how to implement an integrative reproductive health centre using insights gained from the specialist
Experiential-Learning 7.7	Process of accreditation, creating policies and conducting internal audits	students will be divided into groups and each group will mock practise creating a draft of accreditation application, creating policies, internal audit checklist.
Experiential-Learning 7.8	Implementation of policies and procedures for Reproductive care centres.	students will be made into small teams and each team will enact real-world scenarios where they must apply the policies in a professional setting.
Experiential-Learning 7.9	Documentation of reproductive case in electronic health record	students will be given exercises on filling up of documents including admissions, transfers, and discharges by a mock or simulated electronic health record (EHR) system.

(EHR) system.

## Modular Assessment

### Assessment method

### Hour

Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6C.

1.Scholar should explain the schematic presentation of the components of infrastructure in establishing a geriatric or reproductive clinail set up (Theory 15 marks).

The teacher will assess whether the student has covered the physical structure , clinical facilities , staff and human ressources , pharmacy services, infromation system and support services for establishing in a geriatric or reproductive clinail set up.

2. Scholar should describe the components of statutory requirements in establishing a geriatric or reproductive clinical set up (Theory 15 marks).

The teachers will assess the description of topics i.e statutory and legal requirements, infrastructure, staff, record keeping, ethico-legal considerations, and clinical protocols for a geriatric or reproductive healthcare setting

3.Scholar should demonstrate a tele-consultation of a geriatric or reproductive patient (Practical Viva 10 marks)

The teacher will assess whether the scholar has covered the topics i.e patient history , functional assessment , mental health, virtual physical examination, fertility and pre-conception care management and counselling education .

4.Scholar should explain the importance and steps required in clincial documentation of geriatric or reproductive cases. (Practical Viva 10 marks).

The teacher will assess whether the scholars has covered the points i.e patient identification and consent , cheif complains, gynacological history , sexual and contacesptive history ,psycosexual history, physical examinations and findings, cognitive -sensory and communication , nutrititional assessmement, investigation, diagnosis , management and counselling.

Or

Any practical in converted form can be taken for assessment (25 Marks).

and

Any experiential as portfolio/reflections/presentations, can be taken as an assessment (25 Marks).

4

**Table 4 : Practical Training Activity**

<b>Practical No</b>	<b>Practical name</b>	<b>Hours</b>
<b>1.1</b>	Revisiting samhita for rasayana adhyaya.	2
<b>1.2</b>	Compilation of Nithya sevaniya dravya Rasayana	2
<b>1.3</b>	Samhita based jara Lakshana for Vayasthapana.	2
<b>1.4</b>	Ayusthapana rasayana	2
<b>1.5</b>	Rasayana for Dhatu, Sara, Srotodushti, Vayoavastha and Kala specific in individuals	2
<b>1.6</b>	Rasayana therapy for Pandu Rogi.	2
<b>1.7</b>	Prescribing Rasayana and evaluate the effects.	2
<b>1.8</b>	Rasayana in terms of Nutraceuticals, micronutrients and Anti-oxidants	2
<b>1.9</b>	Compilation of Rasayana phalasruti.	2
<b>1.10</b>	Geriatric case taking	2
<b>2.1</b>	Classification of Vajikarana Dravya	2
<b>2.2</b>	Examination of male genital system	2
<b>2.3</b>	Anthropometric description of reproductive organs of male patients	2
<b>2.4</b>	CRF for Infertile & Sexual dysfunction cases	2
<b>2.5</b>	History taking for sexual dysfunction of an individual patients and as a couple.	4

<b>2.6</b>	Normal Semen parameters as per WHO guidelines	2
<b>2.7</b>	Interpretation of Male Reproductive Hormones in a clinical Practice	2
<b>2.8</b>	Examination of female reproductive system	2
<b>2.9</b>	Interpretation of Female Reproductive Hormones (Sampreraka) in clinical Practice	2
<b>3.1</b>	Prakruti anusara Rasayana prayoga	2
<b>3.2</b>	Prakruti anusara Vajikarana prayoga.	2
<b>3.3</b>	Assessment of Nadi Pariksha for Rasayana & Vajikarana Prayoga for health promotion, vitality and longevity.	2
<b>3.4</b>	Assessment of dhatusarata in co-scholars and simulated patients.	2
<b>3.5</b>	Assessment of dhatusarata and selection of suitable rasayana or vajikarana aushadhi.	2
<b>3.6</b>	Satva anusara rasayana or vajikarana prayoga in swastha and atura purusha.	2
<b>3.7</b>	Male genital examination on Manikin	2
<b>3.8</b>	Documentation of pathological findings of male genital examination.	2
<b>3.9</b>	Female genital examination on manikin	2
<b>3.10</b>	Documentation of pathological findings of female genital examination.	2
<b>4.1</b>	Equipment in the seminology laboratory.	2
<b>4.2</b>	Macroscopic Parameters of Retopariksha.	2
<b>4.3</b>	Microscopic Parameters of Retopariksha.	2
<b>4.4</b>	Sperm function tests and CASA.	2
<b>4.5</b>	Penile Doppler demonstration.	2
<b>4.6</b>	Scrotal Doppler demonstration.	2

<b>4.7</b>	Procedure of CMS.	2
<b>4.8</b>	Interpretation of cervical mucus.	2
<b>4.9</b>	Procedure demonstrate of PCT.	2
<b>4.10</b>	SMIT procedure using 'Simplified slide method'.	2
<b>4.11</b>	SMIT procedure of using 'Capillary tube technique'.	2
<b>4.12</b>	Pathologies and interpretation of karyotyping reports in male patient.	2
<b>4.13</b>	Pathologies and interpretation of karyotyping reports in female patient.	2
<b>4.14</b>	Procedure of YCMD screening and interpretation of the report.	2
<b>4.15</b>	Procedure and interpretation of CFTR screening.	2
<b>5.1</b>	MUB according to SOP	2
<b>5.2</b>	Demonstration of the procedure of utara basti on male manikin as per SOP	2
<b>5.3</b>	Demonstration of the procedure of Paurusha basti on male manikin as per SOP	2
<b>5.4</b>	FUB as advised in SOP	2
<b>5.5</b>	Demonstration of the procedure of FUB on manikin as per SOP	2
<b>5.6</b>	Procedure of yoni prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga	2
<b>5.7</b>	Procedure of shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti	2
<b>5.8</b>	Procedure of vrushana abhyanga, vrushana lepa	2
<b>5.9</b>	Demonstration of the technique of semen wash in laboratory and artificial insemination mechanism on manikin, as per SOP	2
<b>5.10</b>	Assisting in the semen wash technique as per SOP	2
<b>6.1</b>	Demonstration of metabolic changes in older adults based on clinical examination and investigation reports	2

<b>6.2</b>	Drug absorption under different physiological conditions (e.g., elderly versus young adults)	2
<b>6.3</b>	Demonstration of case studies of elderly individuals with impaired Agni vikara and metabolic disorders by case discussions.	2
<b>6.4</b>	Discussion on the influence of age on drug absorption and distribution with examples	2
<b>6.5</b>	Modification of aushadha Matra in geriatric patient based on pharmacokinetic data	2
<b>6.6</b>	Rasayana regimens for elderly patients with varying clinical conditions through case studies	2
<b>6.7</b>	Discussion of guna karma of various dravya indicated in jara avastha	2
<b>6.8</b>	Clinical application group of dravya indicated in jara avastha for Rasayana prayoga.	2
<b>6.9</b>	Demonstration of bioinformatics approaches in Rasayana and Vajikarana dravya	2
<b>6.10</b>	Discussions of biochemical pathways (e.g., antioxidant pathways, inflammatory cascades) and its applictaion in understanding rasayana action	2
<b>6.11</b>	Clinical application of rasayana and vrushya dravya in patients with rationality.	2
<b>6.12</b>	Mechanism of hormonal feedback	2
<b>6.13</b>	Mechanism of Androgen receptor pathways and drug	2
<b>6.14</b>	Clinical case presentation of Purush Vyandhatva treated with vrushya dravya as per various classification	2
<b>6.15</b>	Comparison of metabolic profiles pre and post-treatment using literature available from bioinformatics research	2
<b>7.1</b>	Pre-requities for setting up of Rejuvenation and geriatric centre	2
<b>7.2</b>	Legal requirements for setting up of Rejuvenation and geriatric centre	2
<b>7.3</b>	Statutory requirements relevant to Rejuvenation and Geriatric care centres.	2
<b>7.4</b>	Documentation of geriatric case in electronic health record (EHR) system.	2
<b>7.5</b>	tele-consultations to assess patient conditions, provide advice, and offer treatment options remotely.	2
<b>7.6</b>	Pre-requisites for setting up of Reproductive centre by observing existing centres	2

<b>7.7</b>	Legal requirements for setting up of Reproductive care centres	2
<b>7.8</b>	Application for various accreditation bodies relevant to Reproductive care centres	2
<b>7.9</b>	Reviewing medical records in health record (EHR) system.	2
<b>7.10</b>	Assessing reproductive health over tele-consultation	2

**Table 5 : Experiential learning Activity**

<b>Experiential learning No</b>	<b>Experiential name</b>	<b>Hours</b>
<b>1.1</b>	Experiencing the effects of Rutuharitaki after consuming by self or on peers and document it	3
<b>1.2</b>	Interview with Ayurvedic practitioners to identify the suitable stage for application of Rasayana	3
<b>1.3</b>	Compilation on Dhatu and Srotas specific Rasayana	3
<b>1.4</b>	Application of decade specific rasayana	3
<b>1.5</b>	Protocol on applicability of Rasayana specific to Vaya and Kala	3
<b>1.6</b>	Achara Rasayana in present scenario	3
<b>1.7</b>	Geriatric evaluation as per the developed case report form.	3
<b>1.8</b>	Relevance of Rasayana Oushadhi as regenerative medicine in the lines of stem cell technology.	3
<b>1.9</b>	Success stories of stem cell therapies.	1
<b>1.10</b>	Efficacy standards applicable for stem cell therapies	1
<b>2.1</b>	Analysis of the Aphrodisiac formulations from the classical texts	3
<b>2.2</b>	Theory class on Physiology of Male reproductive system	3
<b>2.3</b>	Theory class on applied aspects of Physiology of female reproductive system.	3
<b>2.4</b>	Examination of female reproductive system	4
<b>2.5</b>	Anatomy of male reproductive system.	3
<b>2.6</b>	Data capturing of sexual dysfunction and infertility cases	3
<b>2.7</b>	Validation of terminologies (Sanjnya Nischchiti Karana) for Shukra	3
<b>2.8</b>	Seminar on terminologies of Vandhyatwa.	2



<b>2.9</b>	Activity on different meanings of Artava	2
<b>3.1</b>	Customization of rasayana & vajikarana kalpa according to prakruti analysis.	3
<b>3.2</b>	Recent advances related to prakruti.	3
<b>3.3</b>	Recent advances in nadi pariksha and analysis of nadi yantra in assessing nadi.	3
<b>3.4</b>	Customization of rasayana & vajikarana kalpa according to dhatusarata.	3
<b>3.5</b>	Customization of rasayana & vajikarana kalpa according to prakruti, sara and analyse the concept of kala.	3
<b>3.6</b>	Customization of rasayana & vajikarana kalpa according to satva.	3
<b>3.7</b>	Documentation of male genital examination on OPD patients	3
<b>3.8</b>	Demonstration of male genital examination on manikin	3
<b>3.9</b>	Documentation of female genital examination on OPD patients	1
<b>3.10</b>	Demonstration of female genital examination on manikin	1
<b>4.1</b>	Procedure of Retopariksha as per SOP.	3
<b>4.2</b>	Retopariksha.report interpretation	3
<b>4.3</b>	Procedure of Sperm function tests and CASA.	3
<b>4.4</b>	Application of SFTs in ART procedures.	3
<b>4.5</b>	Procedure and interpretation of Penile & Scrotal Doppler	3
<b>4.6</b>	Research updates in penile & scrotal Doppler.	3
<b>4.7</b>	Procedure and interpretation of CMS.	3
<b>4.8</b>	Recent researches in CMS and fertility.	2

<b>4.9</b>	Procedure and interpretation of PCT.	3
<b>4.10</b>	Recent researches related to PCT and fertility.	3
<b>4.11</b>	Procedure and interpretation of SMIT.	3
<b>4.12</b>	Recent researches related to SMIT and fertility.	3
<b>4.13</b>	Researches in Karyotyping and associated management.	2
<b>4.14</b>	Recent researches in YCMD screening and associated management.	1
<b>4.15</b>	Recent researches in CFTR screening and associated management.	1
<b>5.1</b>	Observation of the procedure of MUB on patients when performed by consultants/ seniors	3
<b>5.2</b>	Assisting in the procedure of MUB on patients when performed by consultants/ seniors	3
<b>5.3</b>	Literature and publication review to understand the mode of action of MUB	3
<b>5.4</b>	Observation of the procedure of FUB on patients when performed by consultants/ seniors	3
<b>5.5</b>	Assisting in the procedure of FUB on patients when performed by consultants/ seniors	3
<b>5.6</b>	Literature and publication review to understand the mode of action of FUB	3
<b>5.7</b>	Literatures and publication review to compile the data of yoni prakshalana, yoni pichu, yoni varti, yoni kshara, yoni dhupana, yoni abhyanga for reproductive health	2
<b>5.8</b>	Literature and publication review to compile the data of shishna dhara, shishna lepa, shishna abhyanga, shishna pichu, shishna varti for reproductive health	2
<b>5.9</b>	Literature and publication review to compile the data of vrushana abhyanga, vrushana lepa for reproductive health	2
<b>5.10</b>	Assisting the consultants/ seniors in performing artificial insemination as per SOP	2
<b>6.1</b>	Approach to geriatric case emphasizing on metabolic dysfunction	3

<b>6.2</b>	Compilation of clinical cases of age-related hormonal imbalances and their metabolic effects (e.g., hypothyroidism, insulin resistance).	3
<b>6.3</b>	Integrative approach of metabolic disorders in geriatric population	3
<b>6.4</b>	Comparative studies between Ayurvedic and modern pharmacology of geriatric drugs using peer review/research articles	2
<b>6.5</b>	Documentation of the outcome case studies involving Rasayana therapies.	2
<b>6.6</b>	Applications and outcomes of Rasayana in geriatric care units.	2
<b>6.7</b>	Impact of rasayana and its benefits in various clinical conditions	3
<b>6.8</b>	Effects of Rasayana on specific health conditions, such as aging or malnutrition.	3
<b>6.9</b>	Research updates with respect to biochemical pathways on the effect of Rasayana.	3
<b>6.10</b>	Effect of Rasayana through gene expressions	3
<b>6.11</b>	Management of hormonal disorders by designing a protocol for rasayana prayoga	3
<b>6.12</b>	Case discussion on hormone-driven reproductive conditions	3
<b>6.13</b>	Impact of hormonal therapies on female reproductive health.	3
<b>6.14</b>	Compilation of the pharmacological aspects of vrushya dravya and its application in case of vandhyatwa	2
<b>6.15</b>	Reviewing data generated through various bioinformatics techniques to understand the pharmacology of Rasayana and Vajikarana dravya	1
<b>7.1</b>	Designing sessions on implementation and successful models of geriatric and rejuvenate care centres .	3
<b>7.2</b>	Process of accreditation, creating policies and conducting internal audits	3
<b>7.3</b>	Discussion on implementation of policies and procedures for Rejuvenation and geriatric care centres	3
<b>7.4</b>	Documentation of patient records in electronic health record (EHR) system	3
<b>7.5</b>	Demonstration of tele-consultation	3
<b>7.6</b>	Designing sessions on implementation and successful models of Reproductive care centres.	3

<b>7.7</b>	Process of accreditation, creating policies and conducting internal audits	3
<b>7.8</b>	Implementation of policies and procedures for Reproductive care centres.	3
<b>7.9</b>	Documentation of reproductive case in electronic health record (EHR) system.	2

**Table 6 : Assessment Summary: Assessment is subdivided in A to H points****6 A : Number of Papers and Marks Distribution**

Subject Code	Paper	Theory	Practical	Total
AYPG-AB-RV	1	100	200	300

**6 B : Scheme of Assessment ( Formative and Summative Assessment)****Credit frame work**

AYPG-AB-RV consists of 7 modules totaling 16 credits, which correspond to 480 Notional Learning Hours. Each credit comprises 30 Hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

**Formative Assessment :**Module wise Assessment:will be done at the end of each module. Evaluation includes learners active participation to get Credits and Marks. Each Module may contain one or more credits.

**Summative Assessment:**Summative Assessment (University examination) will be carried out at the end of Semester II.

**6 C : Calculation Method for Modular Grade Points (MGP)**

Module Number & Name (a)	Credits (b)	Actual No. of Notional Learning Hours (c)	Attended Number of notional Learning hours (d)	Maximum Marks of assessment of modules (e)	Obtained Marks per module (f)	MGP =d* f/c*e*100
M1. Siddhanta of Rasayana	2	60		50		
M2. Siddhanta of Vajikarana	2	60		50		
M3. Rogi Pareeksha	2	60		50		
M4. Diagnostic Procedures	3	90		75		
M5. Therapeutic Procedures	2	60		50		
M6. Pharmacology	3	90		75		
M7. Establishment of Clinical Set up	2	60		50		
MGP = ((Number of Notional learning hours attended in a module) X (Marks obtained in the modular assessment ) / (Total number of Notional learning hours in the module) X (Maximum marks of the module)) X 100						

## 6 D : Semester Evaluation Methods for Semester Grade point Average (SGPA)

SGPA will be calculated at the end of the semester as an average of all Module MGPs. Average of MGPs of the Semester For becoming eligible for Summative assessment of the semester, student should get minimum of 60% of SGPA

**SGPA = Average of MGP of all modules of all papers = add all MGPs in the semester/ no. of modules in the semester**  
**Evaluation Methods for Modular Assessment**

A S.No	B Module number and Name	C MGP
1	M1.Siddhanta of Rasayana	C1
2	M2.Siddhanta of Vajikarana	C2
3	M3.Rogi Pareeksha	C3
4	M4.Diagnostic Procedures	C4
5	M5.Therapeutic Procedures	C5
6	M6.Pharmacology	C6
7	M7.Establishment of Clinical Set up	C7
	<b>Semester Grade point Average (SGPA)</b>	<b>(C1+C2+C3+C4+C5+C6+C7) / Number of modules(7)</b>

S. No	Evaluation Methods
1.	Method explained in the Assessment of the module or similar to the objectives of the module.

## 6 E : Question Paper Pattern

### MD/MS Ayurveda Examination AYPG-AB-RV Sem II

**Time:** 3 Hours ,**Maximum Marks:** 100  
**INSTRUCTIONS:** All questions compulsory

		Number of Questions	Marks per question	Total Marks
Q 1	Application-based Questions (ABQ)	1	20	20
Q 2	Short answer questions (SAQ)	8	5	40
Q 3	Analytical based structured Long answer question (LAQ)	4	10	40
				100

**6 F : Distribution for summative assessment (University examination)**

S.No	List of Module/Unit	ABQ	SAQ	LAQ
<b>(M-1)Siddhanta of Rasayana (Marks: Range 5-15)</b>				
1	(U-1) Ambit of Rasayana	No	Yes	Yes
2	(U-2) Theories of Ageing	No	Yes	Yes
3	(U-3) Understanding dhatu in the perspective of rasayana	No	Yes	Yes
<b>(M-2)Siddhanta of Vajikarana (Marks: Range 5-15)</b>				
1	(U-1) Ambit of Vajikarana	No	Yes	Yes
2	(U-2) Stree purusha prajanana sansthana	No	Yes	Yes
<b>(M-3)Rogi Pareeksha (Marks: Range 5-20)</b>				
1	(U-1) Assessment of prakruti, nadi, sara & satva	Yes	Yes	No
2	(U-2) Reproductive examination	Yes	Yes	Yes
<b>(M-4)Diagnostic Procedures (Marks: Range 5-20)</b>				
1	(U-1) Shukra pariksha	Yes	Yes	Yes
2	(U-2) Shukra and arthava combined tests	Yes	Yes	No
3	(U-3) Beeja pariksha	Yes	Yes	Yes
<b>(M-5)Therapeutic Procedures (Marks: Range 5-20)</b>				
1	(U-1) Specialized chikitsa in reproductive system	Yes	Yes	Yes
<b>(M-6)Pharmacology (Marks: Range 5-20)</b>				
1	(U-1) Geriatric Pharmacology	Yes	Yes	Yes
2	(U-2) Reproductive Pharmacology	Yes	Yes	Yes
<b>(M-7)Establishment of Clinical Set up (Marks: Range 5-20)</b>				
1	(U-1) Rejuvenative & geriatric centre	Yes	Yes	Yes
2	(U-2) Reproductive centre	Yes	Yes	Yes

## **6 G : Instruction for the paper setting & Blue Print for Summative assessment (University Examination)**

### **Instructions for the paper setting.**

1. 100 marks question paper shall contain:-
  - Application Based Question: 1 No (carries 20 marks)
  - Short Answer Questions: 8 Nos (each question carries 05 marks)
  - Long Answer Questions: 4 Nos (each question carries 10 marks)
2. Questions should be drawn based on the table 6F.
3. Marks assigned for the module in 6F should be considered as the maximum marks. No question shall be asked beyond the maximum marks.
4. Refer table 6F before setting the questions. Questions should not be framed on the particular unit if indicated “NO”.
5. There will be a single application-based question (ABQ) worth 20 marks. No other questions should be asked from the same module where the ABQ is framed.
6. Except the module on which ABQ is framed, at least one Short Answer Question should be framed from each module.
7. Long Answer Question should be analytical based structured questions assessing the higher cognitive ability.
8. Use the Blueprint provided in 6G or similar Blueprint created based on instructions 1 to 7



**6 H : Distribution of Practical Exam (University Examination)**

S.No	Heads	Marks
1	<b>Long procedure: (1*80 = 80 marks)</b> (Duration: 1 hour) Hands on manikin: Major therapeutic procedure Procedure: Demonstration of Basti related to Vajikarana on manikin [Male uttar basti, paurusha basti, Female Uttar basti (Intra-uterine), Female Uttar basti (Intra-vesicle), Vajikarana basti, Yapana basti, Madhutailika basti] <b>OR</b> Laboratory Procedure: Major diagnostic procedure Procedure: Demonstration of Diagnostic procedures related to Vajikarana [Retopariksha, cervical mucus study, post coital test, sperm mucus interaction]	80
2	<b>Short case</b> (1*30 = 30 marks) (Duration: 30 min) Minor clinical examination Procedure: OPD based cases for Rasayana prayoga	30
3	<b>Spotters</b> (10*3 = 30 marks) (Duration: 30 min) <b>Marks distribution</b> Instrument: (2*3 = 6 marks) Seminology lab report: (2*3 = 6 marks) Radiology report: (2*3 = 6 marks) Hormonal report: (2*3 = 6 marks) Reagent: (2*3 = 6 marks)	30
4	<b>Viva</b> (2*20 = 40 marks)	40
5	<b>Logbook</b> (1*10 = 10 marks)	10
6	<b>Clinical record</b> (1*10 = 10 marks)	10
<b>Total Marks</b>		<b>200</b>

## Reference Books/ Resources



15\_Rasayan

[Click here to access References and Resources](#)

## Abbreviations

Domain		T L Method		Level	
CK	Cognitive/Knowledge	L	Lecture	K	Know
CC	Cognitive/Comprehension	L&PPT	Lecture with PowerPoint presentation	KH	Knows how
CAP	Cognitive/Application	L&GD	Lecture & Group Discussion	SH	Shows how
CAN	Cognitive/Analysis	L_VC	Lecture with Video clips	D	Does
CS	Cognitive/Synthesis	REC	Recitation		
CE	Cognitive/Evaluation	SY	Symposium		
PSY-SET	Psychomotor/Set	TUT	Tutorial		
PSY-GUD	Psychomotor/Guided response	DIS	Discussions		
PSY-MEC	Psychomotor/Mechanism	BS	Brainstorming		
PSY-ADT	Psychomotor Adaptation	IBL	Inquiry-Based Learning		
PSY-ORG	Psychomotor/Origination	PBL	Problem-Based Learning		
AFT-REC	Affective/ Receiving	CBL	Case-Based Learning		
AFT-RES	Affective/Responding	PrBL	Project-Based Learning		
AFT-VAL	Affective/Valuing	TBL	Team-Based Learning		
AFT-SET	Affective/Organization	TPW	Team Project Work		
AFT-CHR	Affective/ characterization	FC	Flipped Classroom		
		BL	Blended Learning		
		EDU	Edutainment		
		ML	Mobile Learning		
		ECE	Early Clinical Exposure		
		SIM	Simulation		
		RP	Role Plays		
		SDL	Self-directed learning		
		PSM	Problem-Solving Method		
		KL	Kinaesthetic Learning		
		W	Workshops		
		GBL	Game-Based Learning		
		LS	Library Session		
		PL	Peer Learning		
		RLE	Real-Life Experience		
		PER	Presentations		
		D-M	Demonstration on Model		
		PT	Practical		
		X-Ray	X-ray Identification		
		CD	Case Diagnosis		
		LRI	Lab Report Interpretation		

		DA	Drug Analysis		
		D	Demonstration		
		D-BED	Demonstration Bedside		
		DL	Demonstration Lab		
		DG	Demonstration Garden		
		FV	Field Visit		
		JC	Journal Club		
		Mnt	Mentoring		
		PAL	Peer Assisted Learning		
		C_L	Co Learning		
		DSN	Dissection		
		PSN	Prosection		

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