

**COURSE CURRICULUM FOR FIRST PROFESSIONAL BAMS  
(PRESCRIBED BY NCISM)**



**RACHANA SHARIRA  
(SUBJECT CODE- AyUG-RS)  
HUMAN ANATOMY**

(Applicable from 2021-22 batch onwards for 5 years or until further notification by NCISM, whichever is earlier)



**BOARD OF AYURVEDA  
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE  
NEW DELHI-110058**



**Rachana**

NCISM

# I Professional Ayurvedacharya (BAMS)

Subject Code: AyUG-RS

## Rachana Sharir (Human Anatomy)

### Summary

| AyUG-RS<br>Total number of Teaching hours: 500 |          |           |                    |
|------------------------------------------------|----------|-----------|--------------------|
| Lecture hours (LH) - Theory                    |          | 180 Hours | 180 Hours<br>(LH)  |
| Paper I                                        | 90 Hours |           |                    |
| Paper II                                       | 90 Hours |           |                    |
| Non-Lecture hours (NLH) – Theory               |          | 80 Hours  | 320 Hours<br>(NLH) |
| Paper I                                        | 40 Hours |           |                    |
| Paper II                                       | 40 Hours |           |                    |
| Non-Lecture hours (NLH) - Practical            |          | 240 Hours |                    |

| AyUG-RS<br>Examination (Papers & Mark Distribution) |                        |                           |      |          |    |
|-----------------------------------------------------|------------------------|---------------------------|------|----------|----|
| Item                                                | Theory Component Marks | Practical Component Marks |      |          |    |
|                                                     |                        | Practical                 | Viva | Elective | IA |
| Paper I                                             | 100                    | 100                       | 70   | --       | 30 |
| Paper II                                            | 100                    |                           |      |          |    |
| Sub-Total                                           | 200                    | 200                       |      |          |    |
| Total marks                                         | 400                    |                           |      |          |    |

## **Preamble**

The primary purpose for teaching Rachana sharir to undergraduate students is to provide a thorough understanding of the basic principles of Sharir. Gross and microscopic structure and development of the human body in perspective of ancient and modern sciences, as well as to acquire necessary skills. Sharir in Ayurveda also provides in depth views to concepts like Marma and srotas. Learning of Sharir is most useful in further years in diagnosis and management of the diseases.

Various teaching and learning methods, including didactic, demonstration, tutorial, group discussion, seminars, Integrated Teaching (IT), Problem Based Learning (PBL), and Early Clinical Exposure (ECE), Case-Based Learning (CBL), Virtual Dissection, and cadaveric dissection, are used to transfer knowledge to students, and the syllabus is constructed accordingly. As a result, the students appreciate being a part of the teaching and learning process. This will help the students to become competent, self-assured, caring, and concerned humans capable of providing ethical medical treatment.

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## Course Code and Name of Course

|  |                |                                       |
|--|----------------|---------------------------------------|
|  | Course code    | Name of Course                        |
|  |                |                                       |
|  | <b>AyUG RS</b> | <b>Rachana Sharir (Human Anatomy)</b> |
|  |                |                                       |

AyUG RS

**Table 1- Course learning outcomes and matched PO.**

| <b>SR1</b>   | <b>A1</b>                                                                                                                                           | <b>B1</b>                                                              |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>CO</b>    | <b>Course learning Outcome (CO) AyUG RS</b>                                                                                                         | <b>Course learning Outcome matched with program learning outcomes.</b> |
| <b>No</b>    | <b>At the end of the course AyUG RS, the student should be able to-</b>                                                                             |                                                                        |
| <b>CO1</b>   | Describe the fundamentals of Rachana Sharir, interpret and analyze it in relevant context and recognize its significance in Ayurveda                | <b>PO1, PO2</b>                                                        |
| <b>CO 2</b>  | Explain Garbha Sharir and Embryology in Ayurveda and modern science respectively with clinical significance                                         | <b>PO1, PO2</b>                                                        |
| <b>CO 3</b>  | Describe and demonstrate all the bones and joints with attachments of associated structures and its clinical application                            | <b>PO1, PO2</b>                                                        |
| <b>CO 4</b>  | Explain the concept of Sira-Dhamani-Strotas, their organization in the human body and its applied aspect                                            | <b>PO1, PO2</b>                                                        |
| <b>CO 5</b>  | Identify the Marmas and understand its classification along with its importance in preventive and therapeutic aspect                                | <b>PO1, PO2</b>                                                        |
| <b>CO 6</b>  | Explain and demonstrate the gross anatomy of the organs of various systems and their applied anatomy in perspective of Ayurveda and Modern science  | <b>PO1, PO2, PO3</b>                                                   |
| <b>CO 7</b>  | Explain the Indriya Sharir and Sensory organs with its application in preventive and therapeutic domain.                                            | <b>PO1, PO2</b>                                                        |
| <b>CO 8</b>  | Identify and locate all the structures of body and mark the topography of the living Sharir.                                                        | <b>PO1, PO3</b>                                                        |
| <b>CO 9</b>  | Respect the cadaver and perform dissection with commitment to reiterate the theoretical aspect of Ayurved Rachana Sharir and contemporary sciences. | <b>PO1, PO3, PO5</b>                                                   |
| <b>CO 10</b> | Describe the basic principles of imaging technologies and identify the anatomical structures in the radiograph                                      | <b>PO1, PO2, PO3</b>                                                   |

**Table 2: Contents of Course AyUG-RS**

| <b>Paper I</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                     |                                 |                                          |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|---------------------------------|------------------------------------------|
| <b>SN</b>      | <b>A2<br/>List of Topics AyUG-RS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>B2<br/>Term</b> | <b>C2<br/>Marks</b> | <b>D2<br/>Lecture<br/>hours</b> | <b>E2<br/>Non-<br/>Lecture<br/>hours</b> |
| <b>1</b>       | <b>Shariropkramaniya Shaarira</b> <ul style="list-style-type: none"> <li>Sharir and Shaarir vyakhya (definitions of sharira and sharira)</li> <li>Shadangatvam (Six regions of the body)</li> <li>Anga Pratyanga vibhaga (subdivisions)</li> <li>Sharir shastra vibhag</li> <li>Sharir gyan prayojan and its description in contemporary science with its clinical importance</li> </ul>                                                                                    | <b>I</b>           | 6                   | 4                               | 2                                        |
| <b>2</b>       | <b>Paribhasha Shaarira</b> <ul style="list-style-type: none"> <li>Kurcha, Kandara, Jala, Asthisamghata, Seemnta, Seevani, Rajju, and lasika</li> <li>Terminologies related shadang sharir</li> </ul>                                                                                                                                                                                                                                                                        | <b>I</b>           | 4                   | 3                               | 1                                        |
| <b>3.</b>      | <b>Garbha Shaarira</b> <ul style="list-style-type: none"> <li>Garbha Vyakhya (Definition of Garbha)</li> <li>Concept of Shukra and Artava</li> <li>Garbhavkranti. Masanumasik grabhavruddhi</li> <li>Role of panchamahabhoot in Garbhavruddhi</li> <li>Concept of Beeja, Beejabhaga, Beejabhagavayava</li> <li>Garbhposhana</li> <li>Apara nirmiti, Garbhanabhinadi</li> <li>Garbha Angapratyanga utpatti according to different Acharya</li> <li>Garbha Vikruti</li> </ul> | <b>I</b>           | 15                  | 17                              | 5                                        |
| <b>4.</b>      | <b>Asthi Shaarira</b><br>Enumeration of Asthi, Types, asthi swaroopa, with its applied aspect                                                                                                                                                                                                                                                                                                                                                                               | <b>I</b>           | 4                   | 2                               | 1                                        |
| <b>5.</b>      | <b>Sandhi Shaarira</b> <ul style="list-style-type: none"> <li>Description of Sandhi and its enumeration,</li> <li>Types of Sandhi with its clinical importance</li> <li>Introduction of diseases of Sandhi explained in Ayurveda</li> </ul>                                                                                                                                                                                                                                 | <b>II</b>          | 4                   | 2                               | 3                                        |
| <b>6.</b>      | <b>Snayu sharir</b><br>Concept of Snayu and its clinical importance                                                                                                                                                                                                                                                                                                                                                                                                         | <b>II</b>          | 3                   | 2                               | 1                                        |
| <b>7.</b>      | <b>Peshi Shaarira</b> <ul style="list-style-type: none"> <li>Description of Peshi,</li> <li>Utpatti, types, Swaroop, function with its importance</li> </ul>                                                                                                                                                                                                                                                                                                                | <b>II</b>          | 3                   | 2                               | 1                                        |
| <b>8.</b>      | <b>Kesha, Danta, Nakha Sharir</b> <ul style="list-style-type: none"> <li>Description of Panchbhautik swaroop and its applied value</li> <li>Explanation of its swabhava (Pitruja) and its applied value</li> <li>Description of Prakrita (normal) and Vikruta(abnormal) Swaroop (appearance) of kesha, danta, nakha in concern with disease</li> <li>Importance of examination of kesha, danta, nakha</li> </ul>                                                            | <b>II</b>          | 4                   | 2                               | 1                                        |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |    |    |   |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|---|
|    | as diagnostic tool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |    |    |   |
| 9  | <b>Embryology</b> <ul style="list-style-type: none"> <li>Definitions and branches of embryology.</li> <li>Embryo and Fetus. Sperm and Ovum, Fertilization, Cleavage.</li> <li>Germ layers formation and their derivatives.</li> <li>Laws of heredity, Sex determination and differentiation, Month-wise development of embryo.</li> <li>Fetal circulation, Placenta formation, Umbilical cord formation</li> </ul>                                                                                  | I   | 5  | 7  | 2 |
| 10 | <b>Osteology</b> <ul style="list-style-type: none"> <li>Bone: structure, types and ossification.</li> <li>Description of each bone with clinical anatomy</li> </ul>                                                                                                                                                                                                                                                                                                                                 | I   | 12 | 9  | 6 |
| 11 | <b>Arthorology</b> <ul style="list-style-type: none"> <li>Joints: structure, types and movements.</li> <li>Description of joints of extremities, inter-vertebral joints and temporomandibular joint with their clinical anatomy.</li> </ul>                                                                                                                                                                                                                                                         | II  | 10 | 10 | 6 |
| 12 | <b>Myology</b> <ul style="list-style-type: none"> <li>Structure and types of muscles. Description of important muscles: origin, insertion, actions, nerve supply and clinical anatomy.</li> <li>Muscle movements in Yogasana</li> </ul>                                                                                                                                                                                                                                                             | II  | 4  | 6  | 2 |
| 13 | <b>Nervous System</b> <ul style="list-style-type: none"> <li>Nervous system: Introduction and classification</li> <li>Meninges</li> <li>Description of Brain and Spinal cord.</li> <li>Description of Peripheral Nervous System: Cranial and Spinal nerves, Brachial, Cervical, Lumbar and Sacral nerve plexus,</li> <li>Anatomical consideration of Autonomic Nervous System,</li> <li>Formation and circulation of cerebrospinal fluid</li> <li>Blood supply of Brain and Spinal cord.</li> </ul> | III | 14 | 14 | 4 |
| 14 | <b>Endocrinology</b> <ul style="list-style-type: none"> <li>Description of endocrine glands (Pituitary, Thyroid, Parathyroid, Thymus, Pineal and Suprarenal glands) with clinical aspects.</li> <li>Histology of all glands.</li> </ul>                                                                                                                                                                                                                                                             | III | 8  | 8  | 3 |
| 15 | <b>Lymphatic system</b> <ul style="list-style-type: none"> <li>Introduction Structure included in lymphatic system: Lymph vessels, Lymph nodes, Lymph glands with their clinical importance.</li> </ul>                                                                                                                                                                                                                                                                                             | III | 4  | 2  | 2 |

| Paper II AyUG-RS |                                                                                                                                                                                                                                                                                                                 |            |             |                        |                                |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|------------------------|--------------------------------|
| SN               | A2<br>List of Topics AyUG-RS                                                                                                                                                                                                                                                                                    | B2<br>Term | C2<br>Marks | D2<br>Lecture<br>hours | E2<br>Non-<br>Lecture<br>hours |
| 1                | <b>Pramana Sharira:</b><br>Anguli pramana & Anjali praman with its applied importance                                                                                                                                                                                                                           | II         | 2           | 2                      | 1                              |
| 2                | <b>Koshtha Evam Ashaya Sharira</b><br>• Definition of Kostha with its applied importance and<br>• Enumeration of Koshthanga and its description<br>• Concept of Ashaya with its clinical importance                                                                                                             | I          | 4           | 2                      | 1                              |
| 3.               | <b>Sira Sharir</b><br>• Concept of Sira<br>• Nirukti, types, enumeration of Sira and its applied aspect<br>• Introduction to Sira vedha                                                                                                                                                                         | II         | 4           | 3                      | 1                              |
| 4.               | <b>Dhamani Sharir</b><br>• Concept of Dhamani<br>• Nirukti, types, enumeration of Dhamani and its applied aspect                                                                                                                                                                                                | II         | 2           | 2                      | 1                              |
| 5.               | <b>Strotas Shaarira</b><br>• Concept of Strotas<br>• Nirukti, types, number of Srotas, Strotomool and its applied aspect<br>• Types of Strotas and its description.<br>• Applied aspect of Strotas                                                                                                              | II         | 7           | 8                      | 3                              |
| 6.               | <b>Kala Shaarira</b><br>• Definition and etymology of Kala<br>• Enumeration and description of Kala<br>• Applied aspect of Kala                                                                                                                                                                                 | III        | 4           | 2                      | 2                              |
| 7.               | <b>Indriya Shaarira</b><br>• Definition of Indriya, Indriya artha and Indriya adhisthan,<br>• Number and importance of Indriya<br>• Description of Gyanendriya, Karmendriya and Ubhayendriya (Manas).<br>• Ayurved sharir of Indriya adhistan- Karna, Twacha, Netra, Jivha, Nasa<br>• Applied aspect of Indriya | III        | 3           | 3                      | 1                              |
| 8.               | <b>Twacha Sharir</b><br>Definition, types and characteristics of Twacha with its clinical importance, significance of Twacha adhisthana in disease manifestation, its relation with Dhatu.                                                                                                                      | III        | 3           | 2                      | 2                              |
| 9                | <b>Marma Sharira</b><br>• Marma: definition, enumeration, classification, location<br>• Surface demarcation of Marma<br>• Explanation of Trimarma                                                                                                                                                               | II         | 15          | 13                     | 4                              |



|    |                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |    |    |   |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|---|
|    | <ul style="list-style-type: none"> <li>Detail description of Marma with its applied importance.</li> </ul>                                                                                                                                                                                                                                                                                                                       |     |    |    |   |
| 10 | <b>Respiratory System</b> <ul style="list-style-type: none"> <li>Bronchial tree and Lungs with their clinical aspects.</li> <li>Respiratory tract: Nasal cavity, Pharynx, Larynx, Trachea</li> <li>Pleura with its clinical aspects</li> <li>Diaphragm and its opening</li> <li>Histology of all organs</li> </ul>                                                                                                               | II  | 10 | 6  | 4 |
| 11 | <b>Digestive system</b> <ul style="list-style-type: none"> <li>Regions of abdomen</li> <li>Organs of digestive tract (alimentary tract) with their clinical aspects.</li> <li>Digestive glands: Liver, Spleen and Pancreas.</li> <li>Description of peritoneum with its clinical aspects</li> <li>Histology of all organs</li> </ul>                                                                                             | I   | 12 | 10 | 6 |
| 12 | <b>Cardiovascular system</b> <ul style="list-style-type: none"> <li>Description of Heart</li> <li>Structure of artery &amp; vein</li> <li>Importance blood vessels with their course and branches.</li> <li>Pericardium with applied aspect</li> <li>Histology of Heart</li> </ul>                                                                                                                                               | II  | 8  | 8  | 3 |
| 13 | <b>Urinary System</b> <ul style="list-style-type: none"> <li>Urinary tract: Kidney, Ureter, Urinary Bladder and Urethra with their clinical aspects</li> <li>Histology of all organs</li> </ul>                                                                                                                                                                                                                                  | II  | 10 | 8  | 3 |
| 14 | <b>Reproductive system</b> <ul style="list-style-type: none"> <li>Male Reproductive system: Reproductive organs, Scrotum and glands (Testis, Prostate and Seminal vesicles) with their clinical aspects.</li> <li>Female reproductive system: Introduction of external genital organ in brief and internal reproductive organs in detail, tract and glands with clinical importance.</li> <li>Histology of all organs</li> </ul> | III | 6  | 7  | 3 |
| 15 | <b>Sensory organs</b><br>Description of structures of Eye, Ear, Nose, Tongue and Skin with their clinical aspects.                                                                                                                                                                                                                                                                                                               | III | 10 | 14 | 5 |

**Table 3: Learning objectives (Theory) of Course AyUG-RS**

| <b>Paper I RACHANA SHARIR –</b>                                                                        |                                                                                                       |                                  |                                                                    |                                                                |                                      |                                              |                                       |                |                       |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------|----------------------------------------------|---------------------------------------|----------------|-----------------------|
| A3<br>Course<br>outcom<br>e                                                                            | B3<br>Learning Objective<br>(At the end of the<br>session, the students<br>should be able to)         | C3<br>Domain/<br>sub             | D3<br>Must to<br>know/<br>desirable<br>to know/Ni<br>ce to<br>know | E3<br>Level<br>Does/<br>Shows<br>how/<br>Knows<br>how/<br>Know | F3<br>T-L method                     | G3<br>Assessment                             | H3<br>Formati<br>ve<br>/summa<br>tive | I3<br>Te<br>rm | J3<br>Integrat<br>ion |
| <b>Topic 1- Shariroupkramaniya</b> [Time: Lecture: 04 hours, non-lecture 02 hours] Practical- 02 hours |                                                                                                       |                                  |                                                                    |                                                                |                                      |                                              |                                       |                |                       |
| CO1                                                                                                    | Define Sharir.                                                                                        | Cognitive /<br>Recall            | MK                                                                 | Knows                                                          | Lecture                              | Written /<br>viva-voce/<br>Open book<br>test | F&S                                   | I              |                       |
| CO1                                                                                                    | Describe the constitutional<br>elements of Sharir                                                     | Cognitive/<br>Comprehensi<br>on  | MK                                                                 | Knows                                                          | Lecture                              | Written/<br>viva-voce                        | F&S                                   | I              |                       |
| CO1                                                                                                    | Analyze the Constitutional<br>hierarchy of Sharir and its<br>relevance                                | Cognitive/<br>analyze            | DK                                                                 | Knows how                                                      | Lecture/ GD                          | Written /<br>viva-voce                       | F&S                                   | I              |                       |
| CO1                                                                                                    | Enlist Anga -Pratyanga and<br>specific terms for each<br>Pratyanga                                    | Cognitive/<br>Recall             | MK                                                                 | Knows                                                          | Lecture/ GD                          | Written/<br>viva-voce                        | F&S                                   | I              |                       |
| CO1                                                                                                    | Describe the Importance of<br>Pratyaksha (Demonstration<br>& Dissection) method of<br>learning Sharir | Cognitive -<br>comprehensi<br>on | MK                                                                 | Knows how                                                      | Lecture/<br>demonstration/ TT/<br>GD | Written /<br>viva-voce                       | F&S                                   | I              |                       |
| CO1                                                                                                    | Explain the Mruta<br>Samshodhana as mentioned                                                         | Cognitive /<br>Comprehensi<br>on | MK                                                                 | Knows                                                          | Demonstration/<br>simulation/        | Written /<br>viva-voce                       | F&S                                   | I              |                       |

|                                                                                                      |                                                                                                                                          |                                 |    |           |                                 |                                    |       |   |                                  |
|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----|-----------|---------------------------------|------------------------------------|-------|---|----------------------------------|
|                                                                                                      | in Sushruta Samhita and as per the modern science.                                                                                       | Psychomotor                     |    |           |                                 |                                    |       |   |                                  |
| CO1                                                                                                  | Appraise the concept of body donation and its relevance in present scenario                                                              | Cognitive - analysis, Affective | NK | Knows     | Lecture/ educational video/ SDL | Written / viva-voce                | F&S   | I |                                  |
| <b>Topic 2- Paribhasha Sharir</b> [Time: Lecture: 03 hours, non-lecture 01 hours] Practical- 6 hours |                                                                                                                                          |                                 |    |           |                                 |                                    |       |   |                                  |
| CO1                                                                                                  | Explain the terms Kandara, Kurcha, Mamsa, Rajju, Sevani, Jala, Seemant, Asthi Sanghat in context to its enumeration, site and structure. | Cognitive / comprehension       | MK | Knows     | Lecture/ Demonstration          | Written/ viva-voce/ Open book test | F&S   | I |                                  |
| CO1                                                                                                  | Evaluate the clinical importance of Kandara, Kurcha, Mamsa, Rajju, Sevani, Jala Seemant, Asthi and Samghat                               | Cognitive/ Application          | DK | Knows how | Lecture/ Demonstration/ SDL     | Written/ viva-voce                 | S     | I |                                  |
| <b>Topic 3- Garbha Sharir</b> [Time: Lecture: 17 hours, non-lecture 05 hours]                        |                                                                                                                                          |                                 |    |           |                                 |                                    |       |   |                                  |
| CO 2                                                                                                 | Define Garbha and recall the related verse from samhitas.                                                                                | Cognitive / knowledge           | MK | Knows     | Lecture/ Recitation             | Written/ viva-voce                 | F & S | I | -                                |
| CO 2                                                                                                 | Explain the concept of Shukra and recall the related verse from samhitas.                                                                | Cognitive / comprehension       | MK | Knows     | Lecture/ Recitation             | Written/ viva-voce                 | F & S | I | -                                |
| CO 2                                                                                                 | Explain the concept of Artava and recall the related verse from samhitas.                                                                | Cognitive / comprehension       | MK | Knows     | Lecture/ recitation             | Written/ viva-voce                 | F & S | I | -                                |
| CO 2                                                                                                 | Describe the role of tridosha and panchamahabhuta in the fetal development                                                               | Cognitive / comprehension       | MK | Knows how | Lecture/ IT                     | Written/ viva-voce                 | F & S | I | Dept. of Streerog Prasuti tantra |
| CO 2                                                                                                 | Explain the concept of Beeja, Beejbhaag, Beejabhagavayava                                                                                | Cognitive / Comprehension       | MK | Knows     | Lecture/ GD/ TT                 | Written/ viva-voce                 | F & S | I | Dept. of Streerog Prasuti tantra |

|                                                                                |                                                                                      |                           |    |                  |                                                           |                                                 |       |    |                                  |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------|----|------------------|-----------------------------------------------------------|-------------------------------------------------|-------|----|----------------------------------|
| CO 2                                                                           | Describe Masanumasik Garbha vriddhi kram and recall the related verse from samhitas. | Cognitive / comprehension | MK | Knows how        | Lecture/ Recitation/ demonstration with 3D animated video | Written/ viva-voce/ Open book test              | F & S | I  | -                                |
| CO 2                                                                           | Describe Garbhaposhana                                                               | Cognitive / comprehension | MK | Knows how        | Lecture                                                   | Written/ viva-voce/ Open book test              | F & S | I  | -                                |
| CO 2                                                                           | Describe the formation of Apra according to Ayurved                                  | Cognitive / knowledge     | MK | Knows, Knows how | Lecture/ demonstration with 3D animated video             | Written/ viva-voce/ Open book test              | F & S | I  | -                                |
| CO 2                                                                           | Describe Garbha nabhinadi                                                            | Cognitive / knowledge     | MK | Knows            | Lecture                                                   | Written/ viva-voce                              | F & S | I  | -                                |
| CO 2                                                                           | Explain Angapratyanga utpatti with the related verse from samhitas.                  | Cognitive / comprehension | MK | Knows how        | Lecture/ demonstration with 3D animated video/            | Written/ viva-voce/ Assignments/ Open book test | F & S | I  | Dept. of Streerog Prasuti tantra |
| <b>Topic 4- Asthi Shaarira</b> [Time: Lecture: 02 hours, non-lecture 01 hours] |                                                                                      |                           |    |                  |                                                           |                                                 |       |    |                                  |
| CO1                                                                            | Enlist the number of Asthi according to different Acharyas                           | Cognitive/ Recall         | MK | Knows how        | Lecture                                                   | Written / viva-voce/ Open book test             | F & S | I  |                                  |
| CO1                                                                            | Describe the Asthi Sanghata and Asthi Simanta                                        | Cognitive/ comprehension  | MK | Knows            | Lecture/ Demonstration                                    | Written / viva-voce                             | F & S | I  |                                  |
| <b>Topic 5- Sandhi Sharir</b> [Time: Lecture: 02 hours, non-lecture 03 hours]  |                                                                                      |                           |    |                  |                                                           |                                                 |       |    |                                  |
| CO 3                                                                           | Define the term Sandhi                                                               | Cognitive – Recall        | MK | Knows            | Lecture                                                   | Written/ viva-voce                              | F&S   | II |                                  |
| CO 3                                                                           | Classify Sandhi into different types.                                                | Cognitive – Recall        | MK | Knows            | Lecture                                                   | Written/ viva-voce/ project work                | F&S   | II |                                  |
| CO 3                                                                           | Demonstrate the movements of Chala Sandhi and                                        | Cognitive – Application   | MK | shows            | Lecture +                                                 | Written/ viva-voce                              | F&S   | II |                                  |

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|                                                                                            | comprehend the structural appearance                                                                                                                                                         | Psychomotor                    |    |           | Demonstration thorough model/ simulation               |                                                 |       |    |               |
| CO 3                                                                                       | Illustrate the applied aspect of Sandhi and introduction of diseases of Sandhi explained in Ayurveda                                                                                         | Cognitive - Application        | DK | Knows how | Lecture/ ECE/ SDL/ Seminar                             | Written/ viva-voce/ Assignment                  | F&S   | II | Kayachi kitsa |
| <b>Topic 6- Snayu Sharir</b> [Time: Lecture: 02 hours, non-lecture 01 hours]               |                                                                                                                                                                                              |                                |    |           |                                                        |                                                 |       |    |               |
| CO 6                                                                                       | Describe Snayu with respect to its definition, structure, types, number, importance with its clinical importance                                                                             | Cognitive/ comprehension       | MK | Knows how | Lecture with demonstration/ SDL/Seminar                | Written/ Viva -voce/ Open book test             | F&S   | II |               |
| <b>Topic 7- Peshi Sharir</b> [Time: Lecture: 02 hours, non-lecture 01 hours]               |                                                                                                                                                                                              |                                |    |           |                                                        |                                                 |       |    |               |
| CO 5                                                                                       | Describe Peshi Sharir and its classification as per Ayurveda                                                                                                                                 | Cognitive – comprehension      | MK | Knows     | Lecture/ Demonstration/ SDL/ Seminar                   | Written/ Viva-voce/ Open book test              | F&S   | II |               |
| <b>Topic 8- Kesha, Danta, Nakha Sharir</b> [Time: Lecture: 02 hours, non-lecture 01 hours] |                                                                                                                                                                                              |                                |    |           |                                                        |                                                 |       |    |               |
| CO 6                                                                                       | Describe Panchabhautik Swaroop, Swabhav (Pitruja) with its applied value in Prakriti and also explain related diseases with importance of examination kesha, danta, nakha as diagnostic tool | Cognitive/ comprehension       | MK | Knows how | Lecture with demonstration with 3D animated video/ SDL | Written/ Viva -voce/ Open book test/ Assignment | F&S   | II |               |
| <b>Topic 9- Embryology</b> [Time: Lecture: 07 hours, non-lecture 02 hours]                 |                                                                                                                                                                                              |                                |    |           |                                                        |                                                 |       |    |               |
| CO 2                                                                                       | Define embryology and enlist its branches                                                                                                                                                    | Cognitive / knowledge / recall | DK | Knows     | Lecture                                                | Written/ viva-voce                              | F & S | I  |               |
| CO 2                                                                                       | Define Embryo and Foetus                                                                                                                                                                     | Cognitive / knowledge / recall | MK | Knows     | Lecture                                                | Written/ viva-voce                              | F & S | I  |               |

|      |                                                                                         |                                     |    |           |                                         |                                                  |       |   |                                  |
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| CO 2 | Describe the anatomical structure of Sperm and Ovum and explain its clinical importance | Cognitive / comprehension           | MK | Knows how | Lecture/ Demonstration                  | Written/ viva-voce/ Assignment                   | F & S | I |                                  |
| CO 2 | Define term of fertilization                                                            | Cognitive / knowledge / recall      | MK | Knows     | Lecture/ Seminar                        | Written/ viva-voce                               | F & S | I |                                  |
| CO 2 | Describe the process of cleavage                                                        | Cognitive / comprehension           | MK | Knows how | Lecture/ Educational 3D Animated videos | Written/ viva-voce                               | F & S | I | --                               |
| CO 2 | Explain the process of germ layer formation and its derivatives                         | Cognitive / comprehension           | MK | Knows how | Lecture/ Educational 3D Animated videos | Written/ viva-voce                               | F & S | I | Dept. of Streerog Prasuti tantra |
| CO 2 | Explain the laws of heredity                                                            | Cognitive / comprehension           | MK | Knows how | Lecture/ Seminar                        | Written/ viva-voce                               | F & S | I | Dept. of Streerog Prasuti tantra |
| CO 2 | Describe the process of sex determination and differentiation                           | Cognitive / comprehension           | NK | Knows how | Lecture/ Seminar                        | Written/ viva-voce                               | F & S | I | --                               |
| CO 2 | Explain the month wise development of Foetus                                            | Cognitive / comprehension           | MK | Knows how | Lecture/ Demonstration                  | Written/ viva-voce/ Open book test/ Project work | F & S | I | Dept. of Streerog Prasuti tantra |
| CO 2 | Explain foetal circulation and the changes in the circulation after birth               | Cognitive / comprehension           | MK | Knows how | Lecture/Demonstration                   | Written/ viva-voce                               | F & S | I | --                               |
| CO 2 | Describe Placenta formation & its structure with applied anatomy                        | Cognitive / application             | MK | Knows how | Lecture/ Seminar/ ECE                   | Written/ viva-voce                               | F & S | I | Dept. of Streerog Prasuti tantra |
| CO 2 | Describe Umbilical cord with clinical importance                                        | Cognitive / knowledge / application | MK | Knows how | Lecture/ Seminar/ ECE                   | Written/ viva-voce                               | F & S | I | Dept. of Streerog Prasuti tantra |

| <b>Topic 10- Osteology</b> [Time: Lecture: 09 hours, non-lecture 06 hours] Practical- 20 hours |                                                                         |                                        |    |           |                                 |                     |       |   |  |
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| CO3                                                                                            | Explain skeleton and its importance                                     | Cognitive/ comprehension               | MK | knows     | Lecture/ Demonstration/ Seminar | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe the uses of bones                                              | Cognitive/ comprehension               | MK | Knows     | Lecture                         | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe and demonstrate the processes and depressions of various bones | Cognitive/ comprehension, Application  | MK | Show how  | Lecture / Demonstration         | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe the characteristics of the bones                               | Cognitive/ comprehension               | MK | Knows     | Lecture                         | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe the development and ossification of bones                      | Cognitive/ comprehension               | DK | Knows how | Lecture                         | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe and demonstrate Cranial bones and its applied anatomy          | Cognitive / comprehension, Application | MK | Shows how | Lecture/ Demonstration          | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe and demonstrate Facial bones and its applied anatomy           | Cognitive / comprehension, Application | DK | Shows how | Lecture/ Demonstration          | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe and demonstrate pelvic bones and its applied anatomy           | Cognitive / comprehension, Application | MK | Shows how | Lecture/ Demonstration          | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe and demonstrate vertebral column and its applied anatomy       | Cognitive / comprehension, Application | MK | Shows     | Lecture/ Demonstration          | Written / viva-voce | F & S | I |  |
| CO3                                                                                            | Describe and demonstrate thorax bones and its applied anatomy           | Cognitive / comprehension              | MK | Shows how | Lecture/ Demonstration          | Written / viva-voce | F & S | I |  |

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|                                                                                                |                                                                                                     | on,<br>Application                               |    |           |                                             |                                                            |       |    |                  |
| CO3                                                                                            | Describe & demonstrate Clavicle and Scapula and its applied anatomy                                 | Cognitive /<br>comprehensi<br>on,<br>Application | MK | Shows how | Lecture/<br>Demonstration                   | Written /<br>viva-voce                                     | F & S | I  | Kayachi<br>kitsa |
| CO3                                                                                            | Describe Phalanges, Carpal and Tarsal Bones and its applied anatomy                                 | Cognitive /<br>comprehensi<br>on                 | DK | Knows     | Lecture/<br>Demonstration                   | Written/<br>viva-voce                                      | F & S | I  |                  |
| CO3                                                                                            | Describe & demonstrate bones of the upper & lower extremity and its applied anatomy                 | Cognitive /<br>comprehensi<br>on,<br>Application | MK | Shows how | Lecture/<br>Demonstration                   | Written /<br>viva-voce/<br>Project work                    | F & S | I  |                  |
| CO3                                                                                            | Describe & demonstrate Patella and its applied anatomy                                              | Cognitive /<br>comprehensi<br>on,<br>Application | DK | Shows     | Lecture/<br>Demonstration                   | Written /<br>viva-voce                                     | F & S | I  |                  |
| CO10                                                                                           | Recognize and describe the Radiological structures in radiograph                                    | Cognitive /<br>comprehensi<br>on,<br>Application | MK | Shows     | Lecture/<br>Demonstration/<br>PBL/ ECE/ SDL | Written /<br>viva-voce/<br>Project work/<br>Assignment     | F & S | I  |                  |
| <b>Topic 11- Arthrology</b> [Time: Lecture: 10 hours, non-lecture 06 hours] Practical- 8 hours |                                                                                                     |                                                  |    |           |                                             |                                                            |       |    |                  |
| CO 3                                                                                           | Recall the classification of Joints                                                                 | Cognitive –<br>Recall                            | MK | Knows     | Lecture                                     | Written/<br>viva-voce                                      | F&S   | II |                  |
| CO 3                                                                                           | Demonstrate movements of Synovial Joints and comprehend the structural aspect helping in movements. | Cognitive –<br>Application<br>Psychomotor        | MK | Knows how | Lecture/<br>Demonstration/<br>Simulation    | Written/<br>viva-voce                                      | F&S   | II |                  |
| CO 3                                                                                           | Describe constitutional anatomy of joint                                                            | Cognitive –<br>Comprehensi<br>on                 | MK | Knows     | Lecture                                     | Written/<br>viva-voce                                      | F&S   | II |                  |
| CO 3                                                                                           | Describe joints of upper limb and lower limb region, TM joint, and its related applied aspect       | Cognitive –<br>Application                       | MK | Knows how | Lecture/ PBL/ ECE                           | Written/<br>viva-voce/<br>Open book<br>test/<br>Assignment | F&S   | II | Kaychikit<br>sa  |



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| CO 3                                                                                                | Demonstrate the examination of synovial joints                                                                                                                    | Psychomotor                            | MK | Knows + Shows | Demonstration with case presentation in relative aspect/ ECE/ SDL/ 3D Animated videos | Written/ viva-voce/ Practical performance              | F&S   | II  | Rognidan     |
| <b>Topic 12- Myology</b> [Time: Lecture: 06 hours, non-lecture 02 hours] Practical- 8 hours         |                                                                                                                                                                   |                                        |    |               |                                                                                       |                                                        |       |     |              |
| CO5                                                                                                 | State the types of muscles.                                                                                                                                       | Cognitive – application<br>Psychomotor | MK | Knows         | Lecture                                                                               | Written/<br>Viva-voce                                  | F & S | II  |              |
| CO5                                                                                                 | Describe and demonstrate the muscles of upper and lower extremity with their origin, insertion, action & nerve supply and applied aspect and its role in Yogasana | Cognitive – application                | MK | Shows         | Lecture/<br>Demonstration/<br>GD/TT/ SDL/ 3D<br>Animated videos                       | Written/<br>Viva-voce/<br>Open book test/ Project work | F & S | II  | Swasthvritta |
| CO5                                                                                                 | Describe and demonstrate muscles of thorax and abdomen with their origin, insertion, action & nerve supply and applied aspect and its role in Yogasana            | Psychomotor                            | MK | Shows         | Lecture/<br>Demonstration/<br>GD/TT/ SDL/ 3D<br>Animated videos                       | Written/<br>Viva-voce/<br>Open book test/ Project work | F & S | II  | Swasthvritta |
| CO5                                                                                                 | Describe and demonstrate muscles of back with origin, insertion, action & nerve supply and applied aspect and role in Yogasana                                    | Cognitive – application                | DK | Shows         | Lecture/<br>Demonstration/<br>GD/TT/ SDL/3D<br>Animated videos                        | Written/<br>Viva-voce/<br>Open book test/ Project work | F & S | II  | Swasthvritta |
| <b>Topic 13- Nervous System</b> [Time: Lecture: 14 hours, non-lecture 04 hours] Practical- 12 hours |                                                                                                                                                                   |                                        |    |               |                                                                                       |                                                        |       |     |              |
| CO6                                                                                                 | Explain the hierarchy of structural unit                                                                                                                          | Cognitive-/<br>comprehension           | MK | Knows         | Lecture/<br>Demonstration                                                             | Written/<br>viva-voce                                  | F&S   | III |              |
| CO6                                                                                                 | Describe the functional and structural division of the nervous system                                                                                             | Cognitive-<br>comprehension            | MK | Knows how     | Lecture/ Seminar                                                                      | Written/<br>viva-voce                                  | F&S   | III |              |

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| CO6 | Explain the parts of Brain (Cerebrum, Cerebellum)                                                                                             | Cognitive – comprehension                                                  | MK | Knows, Knows how   | Lecture/ Demonstration                                           | Written/ viva-voce/ Open book test | F&S | III |               |
| CO6 | Describe external and internal features of Spinal cord.                                                                                       | Cognitive – comprehension                                                  | MK | Knows, Knows how   | Lecture/ Demonstration/ 3D animated videos                       | Written/ viva-voce/ Open book test | F&S | III |               |
| CO6 | Illustrate the Blood supply of Brain and Spinal cord.                                                                                         | Cognitive – comprehension                                                  | MK | Knows, Knows how   | Lecture/ Demonstration/ 3D animated videos                       | Written/ viva-voce/ Open book test | F&S | III |               |
| CO6 | Describe the external features of diencephalon Mid brain, Pons, Medulla oblongata.                                                            | Cognitive-Comprehension                                                    | DK | Knows              | Lecture/ Demonstration/ 3D animated videos                       | Written/ viva-voce/ Open book test | F&S | III |               |
| CO6 | Describe the limbic system                                                                                                                    | Cognitive-Comprehension                                                    | NK | Knows              | Lecture/ Demonstration/ 3D animated videos                       | Written/ viva-voce/ Open book test | F&S | III |               |
| CO6 | Describe the general Sulci and gyri of cerebrum and determine the clinical importance of Broadman's classification                            | Cognitive – application                                                    | MK | Knows<br>Knows how | Lecture/ Demonstration/ 3D animated videos                       | Written/ viva-voce/ Open book test | F&S | III |               |
| CO6 | Describe the ascending, descending pathways, upper motor neurons and lower motor neurons, its applied aspect in examination of nervous system | Cognitive/ application<br>Affective /responding                            | DK | Knows how          | Lecture/ Demonstration/ CBL, ECE                                 | Written/ viva-voce/ Open book test | F&S | III | Kaya chikitsa |
| CO6 | Demonstrate the superficial and deep reflexes and its clinical importance                                                                     | Cognitive /application<br>Psychomotor /perception<br>Affective /responding | DK | shows              | Lecture + Demonstration though living object/ ECE/ PBL/ SDL/ CBL | Viva-Voce/ Practical performance   | F&S | III | Kayachi kitsa |

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| CO6                                                                                                | Recall the general anatomical consideration of ANS                                                | Cognitive/ Recall         | MK | Knows     | Lecture/ SDL                | Written                             | F&S   | III |  |
| CO6                                                                                                | Describe the cranial and spinal nerves along with formation of nerve plexuses and applied anatomy | Cognitive / Application   | DK | Knows how | Lecture/ PBL/ ECE/ SDL      | Written / viva-voce/ Assignment     | F & S | III |  |
| CO6                                                                                                | Describe the Formation and circulation of cerebro- spinal fluid                                   | Cognitive/ comprehension  | MK | Knows how | Lecture                     | Written / viva-voce                 | F&S   | III |  |
| <b>Topic 14- Endocrinology</b> [Time: Lecture: 08 hours, non-lecture 03 hours] Practical- 02 hours |                                                                                                   |                           |    |           |                             |                                     |       |     |  |
| CO 6                                                                                               | Define Endocrine Glands and enlist them                                                           | Cognitive/ Recall         | MK | Knows     | Lecture                     | Written / viva-voce                 | F & S | III |  |
| CO 6                                                                                               | Describe Structure and Functions of Endocrine Glands                                              | Cognitive-/ Comprehension | MK | Knows     | Lecture                     | Written / viva-voce                 | F & S | III |  |
| CO 6                                                                                               | State the location, Dimension & Shape of Pituitary                                                | Cognitive/ Recall         | MK | Knows     | Lecture/ Demonstration      | Written / viva-voce                 | F & S | III |  |
| CO 6                                                                                               | Describe the Parts & subdivisions of Pituitary                                                    | Cognitive / comprehension | MK | Knows     | Lecture/ Demonstration      | Written / viva-voce                 | F & S | III |  |
| CO 6                                                                                               | Describe the Blood Supply, Nerve Supply & Lymphatic drainage of Pituitary                         | Cognitive /comprehension  | MK | Knows     | Lecture/ Demonstration/ CBL | Written / viva-voce                 | F & S | III |  |
| CO 6                                                                                               | Enlist the hormones secreted by Pituitary, & histology and discuss its clinical anatomy.          | Cognitive/ Application    | MK | Knows     | Lecture/ Demonstration/ GD  | Written / viva-voce/ Open book test | F & S | III |  |
| CO 6                                                                                               | State the location, Dimension & Shape of Thyroid gland                                            | Cognitive/Recall          | MK | Knows     | Lecture/ Demonstration      | Written / viva-voce                 | F & S | III |  |
| CO 6                                                                                               | Describe the lobes, border & surfaces of Thyroid gland with its relation.                         | Cognitive /comprehension  | MK | Knows     | Lecture/ Demonstration      | Written / viva-voce                 | F & S | III |  |
| CO 6                                                                                               | Describe the blood supply, nerve Supply & lymphatic drainage of Thyroid gland                     | Cognitive /comprehension  | MK | Knows     | Lecture/ Demonstration      | Written / viva-voce                 | F & S | III |  |

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| CO 6                                                                             | List the Hormones secreted by Thyroid gland and & histology, and discuss its clinical application | Cognitive - Application  | MK | Knows | Lecture/ GD/ CBL       | Written / viva-voce/ Open book test | F & S | III |               |
| CO 6                                                                             | Describe the location, Shape, Dimensions and structure of Parathyroid gland                       | Cognitive /comprehension | MK | Knows | Lecture/ Demonstration | Written / viva-voce                 | F & S | III |               |
| CO 6                                                                             | Describe the Blood Supply, Nerve Supply & Lymphatic drainage of Parathyroid gland                 | Cognitive /comprehension | DK | Knows | Lecture Demonstration  | Written / viva-voce                 | F & S | III |               |
| CO 6                                                                             | List the hormones secreted by parathyroid, & histology and discuss its Clinical anatomy           | Cognitive /Application   | DK | Knows | Lecture/ GD/ CBL       | Written / viva-voce/ Open book test | F & S | III | Kayachik itsa |
| CO 6                                                                             | State the location, Shape & dimension of Suprarenal gland                                         | Cognitive / Recall       | MK | Knows | Lecture/ Demonstration | Written / viva-voce                 | F & S | III |               |
| CO 6                                                                             | Describe the Surface, Borders of Suprarenal gland along with its relation.                        | Cognitive/comprehension  | MK | Knows | Lecture/ Demonstration | Written / viva-voce                 | F & S | III |               |
| CO 6                                                                             | List the Functions and Secretions of Suprarenal gland                                             | Cognitive /Recall        | MK | Knows | Lecture                | Written / viva-voce                 | F & S | III | Sharir Kriya  |
| CO 6                                                                             | Describe the Blood Supply, Nerve Supply & Lymphatic drainage of Suprarenal gland                  | Cognitive /comprehension | DK | Knows | Lecture/ Demonstration | Written / viva-voce                 | F & S | III |               |
| CO 6                                                                             | Describe the Internal structure of suprarenal gland                                               | Cognitive /comprehension | DK | Knows | Lecture/ Demonstration | Written / viva-voce                 | F & S | III |               |
| CO 6                                                                             | Write the Clinical & applied anatomy & histology of Suprarenal gland                              | Cognitive /application   | DK | Knows | Lecture/ CBL           | Written / viva-voce/ Open book test | F & S | III | Kayachik itsa |
| <b>Topic 7- Lymphatic System</b> [Time: Lecture: 02 hours, non-lecture 02 hours] |                                                                                                   |                          |    |       |                        |                                     |       |     |               |

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| CO 6 | Define Lymphatic System                                                                                                                 | Cognitive / Recall                     | MK | Knows     | Lecture                          | Written / viva-voce                 | F & S | III |                              |
| CO 6 | Describe components of Lymphatic System                                                                                                 | Cognitive / comprehension              | MK | Knows     | Lecture                          | Written / viva-voce                 | F & S | III |                              |
| CO 6 | Describe the anatomical structure of Various Lymph Vessels i.e. Lymphatic Trunks, Thoracic Duct etc and explain its clinical importance | Cognitive / comprehension, Application | MK | Knows how | Lecture/ Demonstration/ CBL      | Written / viva-voce                 | F & S | III |                              |
| CO 6 | Describe the anatomical structure of Lymph Glands i.e. Lymph Nodes, Spleen, Thymus, Tonsils etc and explain its clinical importance     | Cognitive / comprehension, Application | MK | Knows how | Lecture/ Demonstration/ ECE/ CBL | Written / viva-voce/ Open book test | F & S | III | Rognidan Evum Vikriti Vigyan |

## Paper II

### Topic 1- Praman sharir [Time: Lecture: 02 hours, non-lecture 01 hours]

|     |                                                          |                         |    |       |                            |                                    |       |    |  |
|-----|----------------------------------------------------------|-------------------------|----|-------|----------------------------|------------------------------------|-------|----|--|
| CO1 | Describe Anguli and Anjali praman with its significance. | Cognitive Comprehension | MK | Knows | Lecture/ Demonstration/ GD | Written/ Viva-voce/ Open book test | F & S | II |  |
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### Topic 2- Koshtha Evam Ashaya Shaarira [Time: Lecture: 02 hours, non-lecture 01 hours]

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|-----|-----------------------------------------------------------------------|--------------------------|----|-------|-----------------|------------------------------------|-----|---|--|
| CO1 | Define of Koshtha and Ashaya                                          | Cognitive/ knowledge     | MK | Knows | Lecture         | Written/ viva-voce/ Open book test | F&S | I |  |
| CO1 | Describe the concept of various numbers of Koshthanga as per Samhitas | Cognitive/ Comprehension | MK | Knows | Lecture         | Written/ viva-voce/ Open book test | F&S | I |  |
| CO1 | Describe the concept of various Numbers of Ashaya as per Samhitas     | Cognitive/ Comprehension | MK | Knows | Lecture/ TT/ GD | Written/ viva-voce/                | F&S | I |  |

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|                                                                                |                                                             |                                       |    |           |                            | Open book test                                   |       |    |               |
| CO1                                                                            | Describe and explain applied aspects of Koshtha and Ashaya. | Cognitive/ Comprehensiv e application | NK | Knows How | Lecture/ GD/ ECE           | Written/ viva-voce/ Assignments/ Open book test  | F&S   | I  | Kayacki tsa   |
| <b>Topic 3- Sira sharir</b> [Time: Lecture: 03 hours, non-lecture 01 hours]    |                                                             |                                       |    |           |                            |                                                  |       |    |               |
| CO 4                                                                           | Define Sira, Enumerate the sira & state its Nirukti         | Cognitive /Recall                     | MK | Knows     | Lecture/ Seminar           | Written / viva-voce/ Open book test              | F & S | II |               |
| CO 4                                                                           | Explain the classification of Sira                          | Cognitive / Comprehension             | MK | Knows how | Lecture                    | Written / viva-voce/ Open book test              | F & S | II |               |
| CO 4                                                                           | Define Vedhya Sira and Enumerate Vedhya Sira                | Cognitive /Recall                     | MK | Knows     | Lecture/ GD                | viva-voce/ Open book test                        | F & S | II |               |
| CO 4                                                                           | Define Avedhya sira and Enumerate the Avedhya Sira          | Cognitive / Recall                    | MK | Knows     | Lecture                    | Written / viva-voce/ Open book test              | F & S | II |               |
| CO 4                                                                           | Locate the Vedhya Sira in the body according to region      | Cognitive / application Psychomotor   | MK | Shows     | Lecture/ Demonstration/ IT | viva-voce/ Practical performance                 | F & S | II | Shalyatan tra |
| CO 4                                                                           | Describe the applied aspect of Siravedha                    | Cognitive - application               | DK | Knows how | Lecture/ ECE/ IT/ CBL      | Written / viva-voce/ Assignment / Open book test | F & S | II | Shalyatan tra |
| <b>Topic 4- Dhamani Sharir</b> [Time: Lecture: 02 hours, non-lecture 01 hours] |                                                             |                                       |    |           |                            |                                                  |       |    |               |
| CO 4                                                                           | Define Dhamani, and state its Nirukti                       | Cognitive/ Recall                     | MK | Knows     | Lecture/ Seminar           | Written / viva-voce/ Open book test              | F & S | II |               |

|                                                                                                |                                                                                               |                                                 |    |           |                             |                                                 |       |     |                           |
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| CO 4                                                                                           | Explain the classification of Dhamani                                                         | Cognitive/ Comprehension                        | MK | Knows how | Lecture/ Seminar            | Written / viva-voce/ Open book test             | F & S | II  |                           |
| CO 4                                                                                           | Locate the Dhamani in the body according to region                                            | Cognitive / application Psychomotor             | DK | Shows     | Lecture/ Demonstration      | Viva-voce/ Practical performance                | F & S | II  |                           |
| <b>Topic 5- Srotasa Sharir</b> [Time: Lecture: 08 hours, non-lecture 03 hours]                 |                                                                                               |                                                 |    |           |                             |                                                 |       |     |                           |
| CO 4                                                                                           | Define Srotasa and state its Nirukti and types                                                | Cognitive/ Recall                               | MK | Knows     | Lecture/ Seminar            | Written / viva-voce/ Open book test             | F & S | II  |                           |
| CO 4                                                                                           | Explain the Classification of Srotasa                                                         | Cognitive / Comprehension                       | MK | Knows     | Lecture/ Seminar            | Written / viva-voce/ Open book test             | F & S | II  |                           |
| CO 4                                                                                           | State the Moolsthana of all Srotasa as per Acharya Sushrut and Charak and its clinical aspect | Cognitive / Recall                              | MK | Knows how | Lecture/ Seminar/ ECE       | Written / viva-voce/ Assignment/ Open book test | F & S | II  | Kayachikitsa/ Panchakarma |
| <b>Topic 6- Kala Sharir</b> [Time: Lecture:02 hours, non-lecture 02 hours] Practical- 03 hours |                                                                                               |                                                 |    |           |                             |                                                 |       |     |                           |
| CO1                                                                                            | Define Kala and explain the formation & functions of seven Kala                               | Cognitive –/ comprehension                      | MK | Knows     | Lecture/ Seminar            | Written / viva-voce/ Open book test             | F&S   | III |                           |
| CO1                                                                                            | Describe Saptakalas with its applied aspect                                                   | Cognitive /comprehension +application           | MK | Knows     | Lecture/ demonstration/ ECE | Written / viva-voce/ Open book test             | F&S   | III | Agadtantra                |
| CO1                                                                                            | Relate the Sapta Kala with Sapta Dhatu                                                        | Cognitive – application + affective - awareness | NK | Knows how | Lecture/ Seminar/ IT        | Written / viva-voce                             | F&S   | III |                           |
| <b>Topic 7- Indriya Sharir</b> [Time: Lecture: 03 hours, non-lecture 01 hours]                 |                                                                                               |                                                 |    |           |                             |                                                 |       |     |                           |

|                                                                                                  |                                                                                                                                                                |                           |    |           |                                                             |                                                 |       |     |                         |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|-----------|-------------------------------------------------------------|-------------------------------------------------|-------|-----|-------------------------|
| CO 7                                                                                             | Define Indriya. Interpret derivation of Indriya and explain its importance.                                                                                    | Cognitive / comprehension | MK | Knows     | Lecture/ Seminar                                            | Written / viva-voce/ Open book test             | F & S | III |                         |
| CO 7                                                                                             | State the meaning of Indriya- artha and Indriya- adhishtan                                                                                                     | Cognitive / knowledge     | MK | Knows     | Lecture/ Seminar                                            | Written / viva-voce/ Open book test             | F & S | III |                         |
| CO 7                                                                                             | Enlist Dnyanendriyas, Karmendriyas and Ubhayendriya                                                                                                            | Cognitive / knowledge     | MK | Knows     | Lecture/ Seminar                                            | Written / viva-voce/ Open book test             | F & S | III |                         |
| CO 7                                                                                             | Illustrate classical description of Dnyanendriya Adhishtan – Karna, Twak, Netra, Jivha, Nasa with its clinical perspective                                     | Cognitive / application   | MK | Knows how | Lecture/ IT/ ECE/ PBL                                       | Written / viva-voce/ Open book test/ Assignment | F & S | III | Dept. of Shalakyatantra |
| <b>Topic 8- Twacha Sharir</b> [Time: Lecture: 02 hours, non-lecture 02 hours]                    |                                                                                                                                                                |                           |    |           |                                                             |                                                 |       |     |                         |
| CO 7                                                                                             | Define Twacha, its types and characteristics with its clinical importance, significance of twacha adhishtana in disease manifestation, its relation with dhatu | Cognitive/ comprehension  | MK | Knows how | Lecture with demonstration with 3D animated video/ ECE/ SDL | Written/ Viva -voce/ Open book test             | F&S   | III |                         |
| <b>Topic 9- Marma Sharir</b> [Time: Lecture: 13 hours, non-lecture 04 hours] Practical- 12 hours |                                                                                                                                                                |                           |    |           |                                                             |                                                 |       |     |                         |
| CO 5                                                                                             | Define Marma and enumerate the Marmas                                                                                                                          | Cognitive – Recall        | MK | Knows     | Lecture/ Seminar                                            | Written / viva-voce/ Open book test             | F&S   | II  |                         |
| CO 5                                                                                             | Describe the Marma and Prana tatva with its Significance                                                                                                       | Cognitive – Comprehension | MK | Knows     | Lecture                                                     | Written / viva-voce/ Open book test             | F&S   | II  |                         |



|                                                                                                         |                                                                   |                                     |    |               |                                                           |                                     |       |    |               |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------|----|---------------|-----------------------------------------------------------|-------------------------------------|-------|----|---------------|
| CO 5                                                                                                    | Discuss the classification of Marma                               | Cognitive – Comprehension           | MK | Knows         | Lecture/ ECE/ PBL                                         | Written / viva-voce/ Open book test | F&S   | II |               |
| CO 5                                                                                                    | Narrate the importance of marma in Sharir and Shalya vigyan       | Cognitive – application             | MK | Knows how     | Lecture/ ECE/ PBL                                         | Written/ Open book test             | F&S   | II | Shalyat antra |
| CO 5                                                                                                    | Illustrate the specific location of Marma as per Sushruta Samhita | Cognitive – Comprehension           | MK | Knows + Shows | Lecture/ Demonstration/ Workshop                          | Written / viva-voce/ Open book test | F&S   | II |               |
| CO 5                                                                                                    | Demonstrate the Marma location as per modern anatomy              | Cognitive – Application Psychomotor | MK | Knows + Shows | Lecture with 3D animated demonstration/ Seminar/ Workshop | Viva-voce/ Practical performance    | F&S   | II | Panchakarma   |
| <b>Topic 10- Respiratory system</b> [Time: Lecture: 06 hours, non-lecture 04 hours] Practical- 10 hours |                                                                   |                                     |    |               |                                                           |                                     |       |    |               |
| CO6                                                                                                     | Enlist the parts of the Bronchial tree                            | Cognitive / Recall                  | MK | Knows         | Lecture/ Demonstration                                    | Written / viva-voce                 | F & S | II |               |
| CO6                                                                                                     | State the location and dimension of Lungs                         | Cognitive - Knowledge               | MK | Knows         | Lecture/ Demonstration                                    | Written / viva-voce                 | F & S | II |               |
| CO6                                                                                                     | Differentiate between Right and left Lungs                        | Cognitive -/ comprehension          | MK | Knows         | Lecture/ Demonstration                                    | Written / viva-voce                 | F & S | II |               |
| CO6                                                                                                     | Describe the Borders, Surfaces and lobes of the Lungs             | Cognitive/ comprehension            | MK | Knows         | Lecture/ Demonstration                                    | Written / viva-voce/ Open book test | F & S | II |               |
| CO6                                                                                                     | Explain the root of Lungs                                         | Cognitive /comprehension            | MK | Knows         | Lecture/ Demonstration                                    | Written / viva-voce                 | F & S | II |               |
| CO6                                                                                                     | Explain the Bronchopulmonary segments of the lungs                | Cognitive /comprehension            | DK | Knows         | Lecture/ Demonstration                                    | Written / viva-voce                 | F & S | II |               |
| CO6                                                                                                     | Describe the Blood supply, Nerve supply, Lymphatics of the Lungs  | Cognitive /comprehension            | MK | Knows         | Lecture/ Demonstration                                    | Written / viva-voce                 | F & S | II |               |

|     |                                                                   |                            |    |           |                        |                                     |       |    |                 |
|-----|-------------------------------------------------------------------|----------------------------|----|-----------|------------------------|-------------------------------------|-------|----|-----------------|
| CO6 | Describe histology and Clinical Anatomy of Lungs                  | Cognitive / application    | MK | Knows how | Lecture/ ECE/ PBL      | Written / viva-voce/ Assignment     | F & S | II | Kaychik ita     |
| CO6 | State the extent and features of Trachea                          | Cognitive / Recall         | MK | Knows     | Lecture/ Demonstration | Written / viva-voce                 | F & S | II |                 |
| CO6 | Explain the Relations of Trachea                                  | Cognitive – /comprehension | MK | Knows how | Lecture/ Demonstration | Written / viva-voce/ Open book test | F & S | II |                 |
| CO6 | Describe the Blood supply, Nerve supply and Lymphatics of Trachea | Cognitive /comprehension   | MK | Knows how | Lecture/ Demonstration | Written / viva-voce                 | F & S | II |                 |
| CO6 | Explain the histology and Clinical anatomy of Trachea             | Cognitive /Application     | MK | Knows how | Lecture/ ECE/ PBL      | Written / viva-voce/ Assignment     | F & S | II | Shalaky atantra |
| CO6 | State the extent of Larynx and its external features              | Cognitive / Recall         | MK | Knows     | Lecture/ Demonstration | Written / viva-voce                 | F & S | II |                 |
| CO6 | Enlist the paired and unpaired cartilages of Larynx               | Cognitive / Recall         | MK | Knows     | Lecture/ Demonstration | Written / viva-voce                 | F & S | II |                 |
| CO6 | Explain the relations of Larynx                                   | Cognitive /comprehension   | DK | Knows how | Lecture/ Demonstration | Written / viva-voce/ Open book test | F & S | II |                 |
| CO6 | Write the blood supply, nerve supply and lymphatics of Larynx     | Cognitive /comprehension   | DK | Knows     | Lecture/ Demonstration | Written / viva-voce                 | F & S | II |                 |
| CO6 | Explain the histology and clinical anatomy of Larynx              | Cognitive / application    | DK | Knows how | Lecture/ Demonstration | Written / viva-voce/ Assignment     | F & S | II |                 |
| CO6 | State the location of Pleura and enlist its parts                 | Cognitive/ Recall          | MK | Knows     | Lecture/ Demonstration | Written / viva-voce                 | F & S | II |                 |
| CO6 | Describe the parts of parietal Pleura                             | Cognitive/ comprehension   | MK | Knows     | Lecture/ Demonstration | Written / viva-voce                 | F & S | II |                 |
| CO6 | Explain the Pulmonary ligaments and recesses of Pleura            | Cognitive /comprehension   | MK | Knows     | Lecture/ Demonstration | Written / viva-voce/                | F & S | II |                 |

|                                                                                                       |                                                                                                                               |                          |    |           |                                      |                                                |       |    |              |
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|                                                                                                       |                                                                                                                               |                          |    |           |                                      | Open book test                                 |       |    |              |
| CO6                                                                                                   | Describe the blood supply, nerve supply, lymphatics of Pleura                                                                 | Cognitive /comprehension | DK | Knows how | Lecture                              | Written / viva-voce                            | F & S | II |              |
| CO6                                                                                                   | Explain the clinical anatomy of Pleura                                                                                        | Cognitive – Application  | DK | Knows how | Lecture/ ECE/ PBL                    | Written / viva-voce/ Assignment                | F & S | II | Kayachikitsa |
| <b>Topic 11- Digestive system</b> [Time: Lecture: 10 hours, non-lecture 06 hours] Practical- 22 hours |                                                                                                                               |                          |    |           |                                      |                                                |       |    |              |
| CO 6                                                                                                  | Describe peritoneum and nine parts of abdomen                                                                                 | Cognitive – application  | MK | Knows     | Lecture/ Demonstration               | Written/ Viva-voce/ Open book test/ Assignment | F & S | I  |              |
| CO 6                                                                                                  | Describe the anatomy of the Oesophagus with relations, histology and clinical anatomy                                         | Cognitive – application  | MK | Knows     | Lecture/ Demonstration               | Written/ Viva-voce/ Open book test/ Assignment | F & S | I  |              |
| CO 6                                                                                                  | Describe the structure of the Stomach, Stomach bed, the interior, histology, blood supply with relations and clinical anatomy | Cognitive – application  | MK | Knows     | Lecture/ Demonstration/ PBL/ ECE/ IT | Written/ Viva-voce/ Open book test/ Assignment | F & S | I  |              |
| CO 6                                                                                                  | Describe the structure of the Duodenum with relations, histology and clinical anatomy.                                        | Cognitive – application  | MK | Knows     | Lecture/ Demonstration/ ECE/ PBL/ IT | Written/ Viva-voce/ Open book test/ Assignment | F & S | I  |              |
| CO 6                                                                                                  | Describe the parts, structure, histology and clinical anatomy of Large intestine.                                             | Cognitive – application  | MK | Knows how | Lecture/ Demonstration               | Written/ Viva-voce/ Open book test/ Assignment | F & S | I  |              |
| CO 6                                                                                                  | Describe the anatomy of the Rectum, Peritoneal &                                                                              | Cognitive – application  | MK | Knows how | Lecture/                             | Written/                                       | F & S | I  |              |

|                                                                                        |                                                                                                                                            |                         |    |           |                                            |                                                            |       |    |  |
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|                                                                                        | visceral relations and applied anatomy of the Rectum.                                                                                      |                         |    |           | Demonstration/<br>ECE/ PBL/ IT             | Viva-voce/<br>Open book<br>test/<br>Assignment             |       |    |  |
| CO 6                                                                                   | Describe the anatomy and musculature of the anal canal, histology with its blood supply, venous drainage and applied anatomy               | Cognitive – application | MK | Knows how | Lecture/<br>Demonstration                  | Written/<br>Viva-voce/<br>Open book<br>test/<br>Assignment | F & S | I  |  |
| CO 6                                                                                   | Describe the structure of the Pancreas, Pancreatic ducts, applied anatomy, along with histology of endocrine & exocrine part.              | Cognitive – application | MK | Knows how | Lecture/<br>Demonstration/<br>ECE/ PBL/ IT | Written/<br>Viva-voce/<br>Open book<br>test/<br>Assignment | F & S | I  |  |
| CO 6                                                                                   | Describe external features, anatomy histology and clinical anatomy of Liver                                                                | Cognitive – application | MK | Knows how | Lecture/<br>Demonstration/<br>ECE/ PBL/ IT | Written/<br>Viva-voce/<br>Open book<br>test/<br>Assignment | F & S | I  |  |
| CO 6                                                                                   | Describe the structure, peritoneal & visceral relations histology and applied anatomy of the Spleen.                                       | Cognitive – application | MK | Knows how | Lecture/<br>Demonstration/<br>ECE/ PBL/ IT | Written/<br>Viva-voce/<br>Open book<br>test/<br>Assignment | F & S | I  |  |
| CO 6                                                                                   | Enlist the salivary glands and describe the anatomy of Parotid gland, Submandibular gland and Sublingual gland with its & Clinical anatomy | Cognitive – application | DK | Knows how | Lecture/<br>Demonstration                  | Written/<br>Viva-voce/<br>Open book<br>test/<br>Assignment | F & S | I  |  |
| <b>Topic 12- Cardiovascular System</b> [Time: Lecture: 08 hours, non-lecture 03 hours] |                                                                                                                                            |                         |    |           |                                            |                                                            |       |    |  |
| CO 6                                                                                   | Describe pericardium with its clinical anatomy                                                                                             | Cognitive – application | MK | Knows how | Lecture/<br>Demonstration                  | Written/<br>Viva-voce                                      | F & S | II |  |
| CO 6                                                                                   | Describe external features of the Heart.                                                                                                   | Cognitive – recall      | MK | Knows     | Lecture/<br>Demonstration                  | Written/                                                   | F & S | II |  |

|                                                                                                        |                                                                                                           |                                         |    |           |                                            |                                                             |       |    |                                                        |
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|                                                                                                        |                                                                                                           |                                         |    |           |                                            | Viva-voce/<br>Open book<br>test/<br>Assignment              |       |    |                                                        |
| CO 6                                                                                                   | Describe internal features of the chambers, valve and auscultatory areas of Heart and its applied anatomy | Cognitive – application                 | MK | Knows how | Lecture/<br>Demonstration/<br>ECE/ PBL/ IT | Written/<br>Viva-voce/<br>Open book<br>test/<br>Assignment  | F & S | II |                                                        |
| CO 6                                                                                                   | Describe the major arteries and veins of Heart.                                                           | Cognitive – Recall                      | MK | Knows     | Lecture/<br>Demonstration                  | Written/<br>Viva-voce                                       | F & S | II |                                                        |
| CO 6                                                                                                   | Describe the histology and applied anatomy of Heart.                                                      | Cognitive – application                 | MK | Knows how | Lecture/<br>Demonstration/<br>ECE/ PBL/ IT | Written/<br>Viva-voce/<br>Open book<br>test/<br>Assignment  | F & S | II |                                                        |
| <b>Topic 13- Urinary System</b> [Time: Lecture: 08 hours, non-lecture 03 hours] Practical- 04 hours    |                                                                                                           |                                         |    |           |                                            |                                                             |       |    |                                                        |
| CO 6                                                                                                   | Enlist the components of Urinary System                                                                   | Cognitive / Recall                      | MK | Knows     | Lecture                                    | Written /<br>viva-voce                                      | F & S | II |                                                        |
| CO 6                                                                                                   | Describe the anatomical structure of Kidney, Ureter, Urinary bladder, Urethra                             | Cognitive / Comprehension               | MK | Knows     | Lecture/<br>Demonstration                  | Written /<br>viva-voce/<br>Open book<br>test/<br>Assignment | F & S | II | Kayachik<br>itsa<br>/Panchkar<br>ma/Shala<br>ya-Tantra |
| CO 6                                                                                                   | Explain histology and clinical anatomy of Kidney, Ureter, Urinary bladder, Urethra and its importance     | Cognitive / Comprehension & Application | MK | Knows how | Lecture/<br>Demonstration/<br>ECE/ PBL/ IT | Written /<br>viva-voce/<br>Open book<br>test/<br>Assignment | F & S | II |                                                        |
| CO 6                                                                                                   | Enlist developmental anomalies of Kidney, Ureter, Urinary bladder, Urethra                                | Cognitive / Recall                      | NK | Knows     | Lecture                                    | Written /<br>viva-voce/<br>Open book<br>test/<br>Assignment | F & S | II |                                                        |
| <b>Topic 14- Reproductive System</b> [Time: Lecture: 07 hours, non-lecture 03 hours] Practical-02 hour |                                                                                                           |                                         |    |           |                                            |                                                             |       |    |                                                        |

|                                                                                |                                                                                                                                                                  |                           |    |           |                                        |                                                 |       |     |  |
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| CO 6                                                                           | Enlist the anatomical structures of male reproductive system and discuss its Ayurved Sharir                                                                      | Cognitive / Comprehension | MK | knows how | Lecture                                | Written / viva-voce/ Open book test             | F & S | III |  |
| CO 6                                                                           | Describe the male reproductive organs – Testes, Scrotum, Epididymis, Ductus deference, Ejaculatory duct, penis, Spermatic cord with histology and applied aspect | Cognitive / application   | MK | knows how | Lecture                                | Written / viva-voce/ Open book test             | F & S | III |  |
| CO 6                                                                           | Enlist the anatomical structures of female reproductive system and discuss its Ayurved Sharir.                                                                   | Cognitive / Comprehension | MK | knows how | Lecture/ Seminar                       | Written / viva-voce/ Open book test             | F & S | III |  |
| CO 6                                                                           | Describe external female reproductive organs                                                                                                                     | Cognitive / Comprehension | MK | knows     | Lecture/ Seminar                       | Written / viva-voce                             | F & S | III |  |
| CO 6                                                                           | Explain Internal reproductive organs in detail with histology and its applied anatomy (Uterus, Fallopian tube, Cervix, Vagina, Ovary)                            | Cognitive / application   | MK | knows how | Lecture/ ECE/ PBL/ IT                  | Written / viva-voce/ Open book test/ Assignment | F & S | III |  |
| CO 6                                                                           | Explain histology of Uterus, Fallopian tube, Cervix, Vagina, Ovary                                                                                               | Cognitive / application   | DK | knows how | Lecture/ Demonstration                 | Written / viva-voce/ Open book test/ Assignment | F & S | III |  |
| <b>Topic 15- Sensory organ</b> [Time: Lecture: 14 hours, non-lecture 05 hours] |                                                                                                                                                                  |                           |    |           |                                        |                                                 |       |     |  |
| CO7                                                                            | Explain five sensory receptors, hierarchy of development of five senses and need of five senses                                                                  | Cognitive - comprehension | MK | Knows how | Lecture with 3D animated demonstration | Written / viva-voce/ Open book test/ Assignment | F&S   | III |  |
| CO7                                                                            | Describe structural aspect of five sensory organ                                                                                                                 | Cognitive – comprehension | MK | Knows     | Lecture                                | Written / viva-voce/ Open book                  | F&S   | III |  |

|     |                                                                                                              |                                            |    |                  |                                                             |                                                             |     |     |                                           |
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|     |                                                                                                              |                                            |    |                  |                                                             | test/<br>Assignment                                         |     |     |                                           |
| CO7 | Describe the pathways of each sense in understanding of its functional anatomy                               | Cognitive - comprehension                  | NK | Knows how        | Lecture with 3D animated demonstration/<br>ECE/ PBL/ IT     | Written /<br>viva-voce/<br>Open book<br>test/<br>Assignment | F&S | III |                                           |
| CO7 | Determine Method of examination, tool of examination and Importance of sensory organ in systemic examination | Cognitive - comprehension +<br>Psychomotor | DK | Knows +<br>Shows | Lecture with practical demonstration of tools/ ECE/ PBL/ IT | Written /<br>viva-voce/<br>Open book<br>test/<br>Assignment | F&S | III | Shalakyadept.<br>Kaya<br>chikitsa<br>dept |

**\*MK-Must Know, DK- Desirable to Know, NK- Nice to Know, TT- Tutorial, GD- Group Discussion, PBL- Problem Based Learning, IT- Integrated Teaching, ECE- Early Clinical Exposure, SDL- Self Directed Learning, CBL- Case Base Learning (P)- Practical**

**List of Practicals AyUG-RS****Marks: 200****Hours: 240**

| SN | Name of Practical                                                                                                                                                                                                                                                                                          | Term | Hours |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|
| P1 | <ul style="list-style-type: none"> <li>• Branches of anatomy. History of Anatomy</li> <li>• Ethics in dissection hall</li> </ul>                                                                                                                                                                           | I    | 2     |
| P2 | <u>Anatomical Terminologies</u><br>Anatomical position, Planes, and explanation of anatomical terms related to skin, fasciae, bones, joints and their movements, muscles, ligaments, tendons, blood vessels, nerves.                                                                                       | I    | 4     |
| P3 | Preservation methods of the cadaver, Mrut sharir Samshodhan <ul style="list-style-type: none"> <li>• Different methods of preservation techniques.</li> </ul> Brief introduction of chemical composition of preservative fluid.                                                                            | I    | 2     |
| P4 | Introduction of Anatomy Act and Brief detailing about Bio medical waste management act 1960                                                                                                                                                                                                                | I    | 2     |
| P5 | Shava vichhedana – detailed dissection of the whole body <ul style="list-style-type: none"> <li>• Line of incision</li> <li>• Dissection technique</li> <li>• Identification of different tools and its Uses</li> <li>• Identification and characteristics of Different layers and its relation</li> </ul> | I    | 32    |
|    | <u>In Extremities:</u> Dissection of extremities & Identification of related structures                                                                                                                                                                                                                    | II   | 40    |
|    | <u>In Trunk region:</u> Demonstration of visceral relation of thoracic, abdominal and pelvic organ                                                                                                                                                                                                         | II   | 38    |
|    | <u>In Head Region:</u> Dissection of head,<br>Identification of Meninges, Major Sulci and gyri, Superficial origin of Cranial Nerve and and venous Sinus.                                                                                                                                                  | III  | 14    |
|    | Dissection of sensory organs                                                                                                                                                                                                                                                                               | III  | 22    |
| P6 | <ul style="list-style-type: none"> <li>• Practical study of vital organs, Histological slides</li> <li>• Identification of external features of thoracic, abdominal and pelvic viscera</li> </ul>                                                                                                          | II   | 06    |
| P7 | Practical study of bones                                                                                                                                                                                                                                                                                   | I    | 36    |



|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |    |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
|     | Identification of external features of bones and different attachment                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |
|     | Surface and Radiological anatomy<br><u><b>In Radiology Anatomy:</b></u> Characteristics of radio imaging film and detailing about its color contrasting<br>Identification of Normal alignment of bodily structure – X ray film <ol style="list-style-type: none"> <li>Chest X Ray – A.P And P.A view</li> <li>Detailing of A.P view of Shoulder joint, Elbow Joint, Wrist joint, Hip joint, knee joint, Ankle joint.</li> <li>Identification of basic clinical finding through X ray film related to long bones and joints</li> </ol> | III | 22 |
| P8  | <u><b>In Surface Anatomy Section:</b></u> <ul style="list-style-type: none"> <li>Identification of Underlying viscera of Nine region based upon Cadaveric and Living Anatomy</li> <li>Surface marking of thoracic, abdominal and pelvic viscera</li> </ul>                                                                                                                                                                                                                                                                            | III | 6  |
| P9  | Practical study of Marma<br>Surface markings of all Marma points and its anatomical demarcation.                                                                                                                                                                                                                                                                                                                                                                                                                                      | III | 12 |
| P10 | Brief detailing about body donation, organ donation and its awareness (Communication skills)                                                                                                                                                                                                                                                                                                                                                                                                                                          | III | 2  |

**\*Note: one practical should not be less than 2 hrs.**

**Table 4: Learning objectives (Practical) of AyUG- RS**

| <b>A4</b><br><b>Course outcome</b>                                                                                        | <b>B4</b><br><b>Learning Objective</b><br><b>(At the end of the session, the students should be able to)</b>                                                                                  | <b>C4</b><br><b>Domain/sub</b>                         | <b>D4</b><br><b>Must to know/ desirable to know/Nice to know</b> | <b>E4</b><br><b>Level Does/ Shows how/ Knows how/ Know</b> | <b>F4</b><br><b>T-L method</b>      | <b>G4</b><br><b>Assessment</b>                  | <b>H4</b><br><b>Formative /summative</b> | <b>I4</b><br><b>Term</b> | <b>J4</b><br><b>Integration</b> |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------|-------------------------------------------------|------------------------------------------|--------------------------|---------------------------------|
| <b>Practical 1- Definition and branches of anatomy. History of Anatomy</b> [Time: Practical or other activity - 02 hours] |                                                                                                                                                                                               |                                                        |                                                                  |                                                            |                                     |                                                 |                                          |                          |                                 |
| <b>CO1</b>                                                                                                                | Define and describe branches of anatomy and its history                                                                                                                                       | Cognitive / knowledge / recall                         | MK                                                               | Know                                                       | Lecture/ Tutorial                   | Written +viva-voce                              | F&S                                      | I                        |                                 |
| <b>CO9</b>                                                                                                                | Practice of ethics in the context of human dissection                                                                                                                                         | Cognitive / knowledge / recall/ Affective/ psychomotor | MK                                                               | Knows Shows                                                | Tutorial/ Demonstration             | viva-voce                                       | F&S                                      | I                        |                                 |
| <b>Practical 2- Anatomical Terminologies</b> [Time: Practical- 2 hours and other activity 2 hours]                        |                                                                                                                                                                                               |                                                        |                                                                  |                                                            |                                     |                                                 |                                          |                          |                                 |
| <b>CO1</b>                                                                                                                | Demonstrate anatomical position, Planes, and explanation of anatomical terms related to skin, fasciae, bones, joints and their movements, muscles, ligaments, tendons, blood vessels, nerves. | Cognitive / knowledge / recall                         | MK                                                               | Knows                                                      | Tutorial/ Demonstration/ Simulation | Written +viva-voce/ Open book test/ Assignments | F&S                                      | I                        |                                 |

| <b>Practical 3- Preservation methods of the cadaver, Mrut sharir Samshodhan</b> [Time: Practical or other activity - 02 hours]                                 |                                                                                                                                      |                                                   |    |                         |                                                |                                                             |     |   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----|-------------------------|------------------------------------------------|-------------------------------------------------------------|-----|---|--|
| CO9                                                                                                                                                            | Describe and demonstrate preservation methods of the cadaver and Mrut sharir Samshodhan                                              | Cognitive / knowledge / recall                    | MK | Knows, Shows            | Tutorial/ Demonstration                        | Written +viva-voce                                          | F&S | I |  |
| CO9                                                                                                                                                            | Describe the different methods of preservation techniques and give brief introduction of chemical composition of preservative fluid. | Cognitive / knowledge / recall                    | MK | Knows                   | Tutorial/ Demonstration                        | Written +viva-voce, spotting, OSPE                          | F&S | I |  |
| <b>Practical 4- Introduction of Anatomy Act and Brief detailing about Bio medical waste management act 1960</b> [Time: Practical or other activity - 02 hours] |                                                                                                                                      |                                                   |    |                         |                                                |                                                             |     |   |  |
| CO9                                                                                                                                                            | Describe and follow the Anatomy Act and Bio medical waste management act 1960                                                        | Cognitive - comprehension, Affective/ psychomotor | NK | Knows, know how, Shows  | Lecture/ Tutorial/ Demonstration               | Written +viva-voce/ Practical performance/ Public awareness | F&S | I |  |
| <b>Practical 5- Shava vichhedana – detailed dissection of the whole body</b> [Time: Practical- 126 hours and other activity 20 hours]                          |                                                                                                                                      |                                                   |    |                         |                                                |                                                             |     |   |  |
| CO9                                                                                                                                                            | Demonstrate the line of incision, dissection technique, different tools and their uses                                               | Cognitive / knowledge / recall                    | MK | Knows/ Shows/ Shows How | Tutorial/ Demonstration / Cadaveric dissection | Written +viva-voce, spotting, OSPE                          | F&S | I |  |
| CO9                                                                                                                                                            | Identify and characteristics of Different layers and its relation                                                                    | Cognitive / knowledge / recall                    | DK | Knows                   | Tutorial/ Demonstration / Simulations /        | Written +viva-voce, spotting, OSPE                          | F&S | I |  |

|                                                                                                                                                                                                               |                                                                                                                                                             |                                         |    |              |                                                    |                                                           |     |     |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----|--------------|----------------------------------------------------|-----------------------------------------------------------|-----|-----|--|
|                                                                                                                                                                                                               |                                                                                                                                                             |                                         |    |              | Cadaveric dissection                               |                                                           |     |     |  |
| CO9                                                                                                                                                                                                           | Identify and demonstrate muscles of extremities and its related structures                                                                                  | Cognitive / knowledge / recall          | DK | Knows, Shows | Tutorial/ Demonstration / Cadaveric dissection     | Written +viva-voce                                        | F&S | II  |  |
| CO6                                                                                                                                                                                                           | Describe and demonstrate the visceral relation of thoracic and abdominal organ                                                                              | Cognitive - comprehension + psychomotor | DK | Knows, Shows | Demonstration / Simulations / Cadaveric dissection | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | II  |  |
| CO6                                                                                                                                                                                                           | Describe and demonstrate surface identification of parts of brain, major sulci and gyri, superficial origin of cranial nerve and meninges and venous sinus. | Cognitive - comprehension + psychomotor | MK | Knows, Shows | Demonstration / Simulations/ Cadaveric dissection  | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | III |  |
| CO6                                                                                                                                                                                                           | Describe, dissect and demonstrate the sensory organs                                                                                                        | Cognitive - comprehension + psychomotor | MK | Knows, Shows | Demonstration / Simulations/ Cadaveric dissection  | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | III |  |
| <b>Practical 6- Practical study of vital organs, Histological slides and identification of external features of thoracic and abdominal viscera</b><br>[Time: Practical- 04 hours and other activity 02 hours] |                                                                                                                                                             |                                         |    |              |                                                    |                                                           |     |     |  |
| CO6                                                                                                                                                                                                           | Focus the histological slides of identified organs                                                                                                          | Cognitive / knowledge / recall          | DK | Knows        | Tutorial/ Demonstration                            | Written +viva-voce spotting, OSPE                         | F&S | II  |  |
| CO6                                                                                                                                                                                                           | Describe and demonstrate the                                                                                                                                | Cognitive - comprehension +             | MK | Knows Shows  | Demonstration                                      | Written +viva-voce, spotting,                             | F&S | II  |  |

|                                                                                                              |                                                                                                                                           |                                         |    |              |                                       |                                                           |     |     |                           |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----|--------------|---------------------------------------|-----------------------------------------------------------|-----|-----|---------------------------|
|                                                                                                              | external features of thoracic and abdominal viscera                                                                                       | psychomotor                             |    |              |                                       | OSPE/<br>Practical performance                            |     |     |                           |
| <b>Practical 7- Practical study of bones</b> [Time: Practical- 30 hours or other activity 06 hours]          |                                                                                                                                           |                                         |    |              |                                       |                                                           |     |     |                           |
| CO3                                                                                                          | Describe and demonstrate external features of bones and muscle attachments                                                                | Cognitive - comprehension + psychomotor | MK | Knows, Shows | Demonstration / Simulations           | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | I   |                           |
| CO10                                                                                                         | Describe the characteristics of radio imaging film and difference in color contrasting                                                    | Cognitive / knowledge / recall          | DK | Knows        | Tutorial/ Demonstration / Simulations | Written +viva-voce spotting, OSPE                         | F&S | I   |                           |
| <b>Practical 8- Surface and Radiological anatomy</b> [Time: Practical- 20 hours and other activity 08 hours] |                                                                                                                                           |                                         |    |              |                                       |                                                           |     |     |                           |
| CO10                                                                                                         | Describe and demonstrate the normal alignment of chest X Ray – A.P And P.A view                                                           | Cognitive - comprehension + psychomotor | MK | Knows, Shows | Tutorial/ Demonstration               | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | III |                           |
| CO10                                                                                                         | Describe and demonstrate the normal alignment of A.P view of Shoulder joint, Elbow Joint, Wrist joint, Hip joint, knee joint, Ankle joint | Cognitive - comprehension + psychomotor | MK | Knows, Shows | Tutorial/ Demonstration               | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | III |                           |
| CO10                                                                                                         | Identify the basic clinical finding through X ray film                                                                                    | Cognitive - comprehension +             | NK | Knows, Shows | Tutorial/ Demonstration               | Written +viva-voce, spotting, OSPE/                       | F&S | III | Kaychikitas, Shalyatantra |

|                                                                                                                     |                                                                                                                                            |                                         |    |                        |                                                |                                                           |     |     |                                 |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----|------------------------|------------------------------------------------|-----------------------------------------------------------|-----|-----|---------------------------------|
|                                                                                                                     | related to long bones and joints                                                                                                           | Psychomotor                             |    |                        |                                                | Practical performance                                     |     |     |                                 |
| CO8                                                                                                                 | Describe and demonstrate underlying viscera of Nine region based upon cadaveric and Living Anatomy                                         | Cognitive - comprehension + psychomotor | DK | Knows, Shows           | Tutorial/ Demonstration                        | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | III |                                 |
| CO8                                                                                                                 | Describe and demonstrate surface marking of thoracic and abdominal viscera                                                                 | Cognitive - comprehension + psychomotor | DK | Knows, Shows           | Tutorial/ Demonstration                        | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | III |                                 |
| <b>Practical 9- Practical study of Marma</b> [Time: Practical or other activity - 12 hours]                         |                                                                                                                                            |                                         |    |                        |                                                |                                                           |     |     |                                 |
| CO5, CO8                                                                                                            | Describe and demonstrate surface markings of Marma points and its anatomical demarcation of all Marma as per Shadang sharir                | Cognitive - comprehension + psychomotor | MK | Knows + Shows          | Tutorial/ Demonstration / Cadaveric dissection | Written +viva-voce, spotting, OSPE/ Practical performance | F&S | III | Panchakarma                     |
| <b>Practical 10- Body donation, organ donation and its awareness</b> [Time: Practical or other activity - 02 hours] |                                                                                                                                            |                                         |    |                        |                                                |                                                           |     |     |                                 |
| CO9                                                                                                                 | Describe body donation and organ donation process with respect to specific organ and its awareness<br>Demonstrate process of communication | Affective/ psychomotor                  | DK | Knows, know how, Shows | Tutorial/ Demonstration                        | Written +viva-voce/ Public awareness/ social work         | F&S | III | Shalyatantra and Shalakyatantra |
|                                                                                                                     |                                                                                                                                            | Psychomotor                             | MK |                        | Role Play                                      |                                                           |     | III |                                 |

|  |                                                                     |  |  |  |  |  |  |  |  |
|--|---------------------------------------------------------------------|--|--|--|--|--|--|--|--|
|  | process in awareness<br>speech or counselling<br>for Body donation. |  |  |  |  |  |  |  |  |
|--|---------------------------------------------------------------------|--|--|--|--|--|--|--|--|

**Table 5: Non-Lecture Activities Course AyUG-RS**

| 1 | List non lecture Teaching-Learning methods              | No of Activities<br>(Values in hours) |
|---|---------------------------------------------------------|---------------------------------------|
| a | Seminar / Workshop                                      | 14                                    |
| b | Tutorial (TT) / Group Discussion (GD)                   | 14                                    |
| c | Problem based learning (PBL)                            | 8                                     |
| d | Integrated teaching (IT)                                | 8                                     |
| e | Early Clinical Exposure (ECE)/ Case Base Learning (CBL) | 18                                    |
| f | Self-Directed Learning (SDL) / Summary writing          | 12                                    |
| g | Field visit                                             | 6                                     |
|   |                                                         | <b>80</b>                             |
| 2 | <b>Practical (refer Table 4)</b>                        | <b>240</b>                            |
|   | <b>Total</b>                                            | <b>320</b>                            |

**Other Educational Activities(Additional):**

- Field visit (community/anatomy museum) - II & III term
- Practical journal – II & III term
- Summary/ Essay writing (Research papers/Samhitas literature review)- II or III term

**Table 6: Assessment Summary****6 A - Number of Papers and Marks Distribution**

| S.No. | Subject Code | Papers | Theory | Practical/Clinical Assessment |      |           |    |           | Grand Total |
|-------|--------------|--------|--------|-------------------------------|------|-----------|----|-----------|-------------|
|       |              |        |        | Practical/<br>Clinical        | Viva | Electives | IA | Sub Total |             |
| 1.    | AyUG-RS      | 2      | 200    | 100                           | 70   | -         | 30 | 200       | 400         |
|       |              |        |        |                               |      |           |    |           |             |

**6 B - Scheme of Assessment (formative and Summative) AyUG-RS**

| SR.NO. | PROFESSIONAL COURSE | DURATION OF PROFESSIONAL COURSE |                              |                              |
|--------|---------------------|---------------------------------|------------------------------|------------------------------|
|        |                     | First Term<br>(1-6 Months)      | Second Term<br>(7-12 Months) | Third Term<br>(13-18 Months) |
| 1      | First               | 3 PA & First TT                 | 3 PA & Second TT             | 3 PA & UE                    |
|        |                     |                                 |                              |                              |

PA: Periodical Assessment; TT: Term Test; UE: University Examinations



### 6 C - Calculation Method for Internal assessment Marks (30 Marks) AyUG-RS

| TERM            | PERIODICAL ASSESSMENT*                                                                                                                                                                                                                                                                                                                                   |              |              |                   |                                 | TERM TEST**                       | TERM ASSESSMENT      |                           |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|-------------------|---------------------------------|-----------------------------------|----------------------|---------------------------|
|                 | A                                                                                                                                                                                                                                                                                                                                                        | B            | C            | D                 | E                               | F                                 | G                    | H                         |
|                 | 1 (15 Marks)                                                                                                                                                                                                                                                                                                                                             | 2 (15 Marks) | 3 (15 Marks) | Average (A+B+C/3) | Converted to 30 Marks (D/15*30) | Term Test (Marks converted to 30) | Sub Total _/60 Marks | Term Assessment (..../30) |
| FIRST           |                                                                                                                                                                                                                                                                                                                                                          |              |              |                   |                                 |                                   | E+F                  | (E+F)/2                   |
| SECOND          |                                                                                                                                                                                                                                                                                                                                                          |              |              |                   |                                 |                                   | E+F                  | (E+F)/2                   |
| THIRD           |                                                                                                                                                                                                                                                                                                                                                          |              |              |                   |                                 | NIL                               |                      | E                         |
| <b>Final IA</b> | Average of Three Term Assessment Marks as Shown in 'H' Column.                                                                                                                                                                                                                                                                                           |              |              |                   |                                 |                                   |                      |                           |
|                 | Maximum Marks in Parentheses<br>*Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C.<br>** Conduct Theory (100 Marks) [MCQ (20*1 Marks), SAQ (8*5), LAQ (4*10)] and Practical (100 Marks)<br>Then convert to 30 marks. |              |              |                   |                                 |                                   |                      |                           |

### 6 D - Evaluation Methods for Periodical Assessment

| S. No. | Evaluation Methods for Periodical Assessment                                                                                                                                                                           |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.     | Practical / Clinical Performance                                                                                                                                                                                       |
| 2.     | Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)                                                                                                                                                   |
| 3.     | Open Book Test (Problem Based)                                                                                                                                                                                         |
| 4.     | Summary Writing (Research Papers/ Samhitas)                                                                                                                                                                            |
| 5.     | Class Presentations; Work Book Maintenance                                                                                                                                                                             |
| 6.     | Problem Based Assignment                                                                                                                                                                                               |
| 7.     | Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD) |
| 8.     | Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).                                                              |
| 9.     | Small Project                                                                                                                                                                                                          |
| 10.    | Other activities explained in Table 3 Column G3 as per indicated term and objective of the topic.                                                                                                                      |

## 6 E - Paper Layout

### I PROFESSIONAL BAMS EXAMINATIONS

#### AyUG-RS

##### PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

TOTAL MARKS 100

|     |                                 | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|---------------------|--------------------|-------------|
| Q 1 | Multiple Choice Questions (MCQ) | 20                  | 1                  | 20          |
| Q 2 | Short answer questions (SAQ)    | 8                   | 5                  | 40          |
| Q 3 | Long answer questions (LAQ)     | 4                   | 10                 | 40          |
|     |                                 |                     |                    | 100         |

### I PROFESSIONAL BAMS EXAMINATIONS

#### AyUG-RS

##### PAPER-1I

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

TOTAL MARKS 100

|     |                                 | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|---------------------|--------------------|-------------|
| Q 1 | Multiple Choice Questions (MCQ) | 20                  | 1                  | 20          |
| Q 2 | Short answer questions (SAQ)    | 8                   | 5                  | 40          |
| Q 3 | Long answer questions (LAQ)     | 4                   | 10                 | 40          |
|     |                                 |                     |                    | 100         |

## 6 F – I - Distribution of Theory exam AyUG- RS

|    | Paper I                    |  |           |                        | D<br>Type of Questions<br>“Yes” can be asked.<br>“No” should not be asked. |                  |                   |
|----|----------------------------|--|-----------|------------------------|----------------------------------------------------------------------------|------------------|-------------------|
|    | A<br>List of Topics        |  | B<br>Term | C<br>Marks             | MCQ<br>(1 Mark)                                                            | SAQ<br>(5 Marks) | LAQ<br>(10 Marks) |
| 1  | Shariropkramaniya Shaarira |  | I         | Refer<br>Next<br>table | Yes                                                                        | Yes              | No                |
| 2  | Paribhasha Shaarira        |  | I         |                        | Yes                                                                        | Yes              | No                |
| 3. | Garbha Shaarira            |  | I         |                        | Yes                                                                        | Yes              | Yes               |
| 4. | Asthi Shaarira             |  | I         |                        | Yes                                                                        | Yes              | Yes               |
| 5. | Sandhi Shaarira            |  | II        |                        | Yes                                                                        | Yes              | Yes               |
| 6. | Snayu sharir               |  | II        |                        | Yes                                                                        | Yes              | No                |
| 7. | Peshi Shaarira             |  | II        |                        | Yes                                                                        | Yes              | No                |
| 8. | Kesha, Danta, Nakha Sharir |  | II        |                        | Yes                                                                        | Yes              | No                |
| 9  | Embryology                 |  | I         |                        | Yes                                                                        | Yes              | Yes               |
| 10 | Osteology                  |  | I         |                        | Yes                                                                        | Yes              | Yes               |
| 11 | Arthrology.                |  | II        |                        | Yes                                                                        | Yes              | Yes               |
| 12 | Myology                    |  | II        |                        | Yes                                                                        | Yes              | No                |
| 13 | Nervous System.            |  | III       |                        | Yes                                                                        | Yes              | Yes               |
| 14 | Endocrinology              |  | III       |                        | Yes                                                                        | Yes              | Yes               |
| 15 | Lymphatic system           |  | III       |                        | Yes                                                                        | No               | Yes               |

|    | Paper II                     |           |                        |  | D<br>Type of Questions<br>“Yes” can be asked.<br>“No” should not be asked. |                  |                   |
|----|------------------------------|-----------|------------------------|--|----------------------------------------------------------------------------|------------------|-------------------|
|    | A<br>List of Topics          | B<br>Term | C<br>Marks             |  | MCQ<br>(1 Mark)                                                            | SAQ<br>(5 Marks) | LAQ<br>(10 Marks) |
| 1  | Pramana Shaarira:            | II        | Refer<br>Next<br>Table |  | Yes                                                                        | No               | No                |
| 2  | Koshtha Evam Ashaya Shaarira | I         |                        |  | Yes                                                                        | Yes              | Yes               |
| 3. | Sira Sharir                  | II        |                        |  | Yes                                                                        | Yes              | Yes               |
| 4. | Dhamani Sharir               | II        |                        |  | Yes                                                                        | Yes              | Yes               |
| 5. | Strotas Shaarira             | II        |                        |  | Yes                                                                        | Yes              | Yes               |
| 6. | Kalaa Shaarira               | III       |                        |  | Yes                                                                        | Yes              | Yes               |
| 7. | Indriya Shaarira             | III       |                        |  | Yes                                                                        | Yes              | Yes               |
| 8. | Twacha Sharir                | III       |                        |  | Yes                                                                        | Yes              | Yes               |
| 9  | Marma Shaarira               | II        |                        |  | Yes                                                                        | Yes              | Yes               |
| 10 | Respiratory System           | II        |                        |  | Yes                                                                        | Yes              | Yes               |

|    |                       |     |  |     |     |     |
|----|-----------------------|-----|--|-----|-----|-----|
| 11 | Digestive system      | I   |  | Yes | Yes | Yes |
| 12 | Cardiovascular system | II  |  | Yes | Yes | Yes |
| 13 | Urinary System        | II  |  | Yes | Yes | Yes |
| 14 | Reproductive system   | III |  | Yes | Yes | Yes |
| 15 | Sensory organs        | III |  | Yes | Yes | Yes |

## 6 F – II - Theme table

### Paper-I:

| Theme* | Topics                                                        | Term | Marks | MCQ | SAQ | LAQ |
|--------|---------------------------------------------------------------|------|-------|-----|-----|-----|
| a      | 1) Shariropakramaniya<br>2) Paribhasha Sharir                 | I    | 10    | YES | YES | NO  |
| b      | 3) Garbha Sharir<br>9) Embryology                             | I    | 20    | YES | YES | YES |
| c      | 4) Asthi Sharir<br>10) Osteology                              | I    | 16    | YES | YES | YES |
| d      | 8) Kesh, Dant, Nakha Sharir<br>7) Peshi Sharir<br>12) Myology | II   | 11    | YES | YES | NO  |
| e      | 5) Sandhi Sharir<br>6) Shayu Sharir<br>11) Arthrology         | II   | 17    | YES | YES | YES |
| f      | 13) Nervous System                                            | III  | 14    | YES | YES | YES |
| g      | 14) Endocrinology<br>15) Lymphatic                            | III  | 12    | YES | YES | YES |

\*Theme: is group of similar topics in Ayurved Sharir and Anatomy. Used in 6G question paper blue print

### Paper-II

| Theme | Topics                                                                                | Term | Marks | MCQ | SAQ | LAQ |
|-------|---------------------------------------------------------------------------------------|------|-------|-----|-----|-----|
| a     | 2) Koshta Evam Ashay Sharir<br>11) Digestive system                                   | I    | 16    | YES | YES | YES |
| b     | 1) Praman Sharir<br>9) Marma Sharir                                                   | II   | 17    | YES | YES | YES |
| c     | 3) Sira Sharir<br>4) Dhamani Sharir<br>5) Strotas Sharir<br>12) Cardiovascular System | II   | 21    | YES | YES | YES |
| d     | 10) Respiratory System                                                                | II   | 10    | YES | YES | YES |
| e     | 13) Urinary System                                                                    | II   | 10    | YES | YES | YES |
| f     | 14) Reproductive System                                                               | III  | 6     | YES | YES | NO  |
| g     | 6) Kala Shair<br>7) Indriya Sharir<br>8) Twacha Sharir<br>15) Sensory organs          | III  | 20    | YES | YES | YES |

**6 G Question paper Blue print for AyU-RS:  
PAPER-I**

| A<br>Question<br>Sr. No | B<br>Type of Question                                                                                                                                                                                      | C<br>Question Paper Format<br>(Refer table 6 F II Theme table for themes)                                                                                                                                                                                                                       |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q1                      | <b>Multiple choice Questions (MCQ)</b><br><br>20 Questions<br><br>1 mark each<br><br>All compulsory<br><br><b>Must know part: 15 MCQ</b><br><b>Desirable to know: 3 MCQ.</b><br><b>Nice to know: 2 MCQ</b> | 1. Theme a<br>2. Theme a<br>3. Theme a<br>4. Theme a<br>5. Theme a<br>6. Theme b<br>7. Theme b<br>8. Theme b<br>9. Theme b<br>10. Theme b<br>11. Theme c<br>12. Theme d<br>13. Theme e<br>14. Theme e<br>15. Theme f<br>16. Theme f<br>17. Theme f<br>18. Theme f<br>19. Theme g<br>20. Theme g |
| Q2                      | <b>Short answer Questions (SAQ)</b><br>Eight Questions<br>5 Marks Each<br>All compulsory<br><b>Must know part: 7 SAQ</b><br><b>Desirable to know: 1 SAQ</b><br><b>Nice to know: Nil</b>                    | 1. Theme a<br>2. Theme b<br>3. Theme c<br>4. Theme d<br>5. Theme d<br>6. Theme e<br>7. Theme g/f<br>8. Theme g/f                                                                                                                                                                                |
| Q3                      | <b>Long answer Questions (LAQ)</b><br>Four Questions<br>10 marks each<br>All compulsory<br><b>All questions on must know</b><br><b>No Questions on Nice to know and Desirable to know</b>                  | 1. Theme b<br>2. Theme c<br>3. Theme e<br>4. Theme f/g                                                                                                                                                                                                                                          |

## PAPER-II

| Question Sr. No |                                                                                                                                                                                                            | SET                                                                                                                                                                                                                                                                                                       |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q1              | <b>Multiple choice Questions (MCQ)</b><br><br>20 Questions<br><br>1 mark each<br><br>All compulsory<br><br><b>Must know part: 15 MCQ</b><br><b>Desirable to know: 3 MCQ.</b><br><b>Nice to know: 2 MCQ</b> | 1. Theme a<br>2. Theme b<br>3. Theme b<br>4. Theme c<br>5. Theme c<br>6. Theme c<br>7. Theme c<br>8. Theme c<br>9. Theme c<br>10. Theme d/e<br>11. Theme d/e<br>12. Theme d/e<br>13. Theme e/d<br>14. Theme e/d<br>15. Theme f<br>16. Theme g<br>17. Theme g<br>18. Theme g<br>19. Theme g<br>20. Theme g |
| Q2              | <b>Short answer Questions (SAQ)</b><br>Eight Questions<br>5 Marks Each<br>All compulsory<br><b>Must know part: 7 SAQ</b><br><b>Desirable to know: 1 SAQ</b><br><b>Nice to know: Nil</b>                    | 1. Theme a<br>2. Theme b<br>3. Theme c<br>4. Theme d/e<br>5. Theme e/d<br>6. Theme e/d<br>7. Theme f<br>8. Theme g                                                                                                                                                                                        |
| Q3              | <b>Long answer Questions (LAQ)</b><br>Four Questions<br>10 marks each<br>All compulsory<br><b>All questions on Must to know</b><br><b>No Questions on Nice to know and Desirable to know</b>               | 1. Theme a<br>2. Theme b<br>3. Theme c<br>4. Theme g                                                                                                                                                                                                                                                      |

## 6 H - I - Distribution of Practical Exam

Practical 100 Marks + (Viva 70 + IA 30) Marks

| SN | Heads                                                         | Marks      |
|----|---------------------------------------------------------------|------------|
| 1  | Spotting (Refer Table 6 H II below)                           | 20         |
| 3  | Kostha Ashay Sharir, Dissected organs and histology slides    | 20         |
| 4  | Ashti, Sandhi, Peshi, Bones and Joints,                       | 20         |
| 5  | Marma Sharir, Surface & Radiological anatomy                  | 20         |
| 6  | Practical record (15 Marks) and Communication Skill (5 Marks) | 20         |
| 7  | Viva-Voce (Objective Structured) (Refer table 6 H – III)      | 70         |
| 8  | Internal assessment                                           | 30         |
|    | <b>Total Marks</b>                                            | <b>200</b> |

## 6 H - II Practical Spot examination Questions – (20 marks)

| SN                             | Question                                                                                                                | Mark allotment                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Topic- Garbha/Sira/Kala</b> |                                                                                                                         |                                                                  |
| 1                              | Identify the structure & give the Drushtant/ Metaphor related with it.<br>e.g.- Gunja Phala- Artava, Spatik-Shukra, etc | Identification- 1<br>Drushtant- 1                                |
| <b>Topic- Marma</b>            |                                                                                                                         |                                                                  |
| 1                              | Identify the Marma & write its type as per Parinama & Rachana                                                           | Identification- 1<br>Type-1                                      |
| 2                              | Identify the Marma & write its Pariman & any two anatomical structures related to the Marma                             | Identification- 0.5<br>Pariman – 0.5<br>Anatomical structure - 1 |
| 3                              | Identify the Marma & write its applied aspect                                                                           | Identification- 1<br>Viddha-1                                    |
| <b>Topic- Bones, Muscles</b>   |                                                                                                                         |                                                                  |
| 1                              | Identify the bone & write its peculiarities (Any 2)<br>e.g.- Atlas vertebra                                             | Identification- 0.5<br>Peculiarities- 1.5                        |
| 2                              | Identify the indicated part on the bone & write its attachment (Any 2)<br>e.g., Scapula spine                           | Identification- 1<br>Attachment- 1                               |
| 3                              | Identify the side of the given bone & write side determination points                                                   | Side identification- 0.5<br>Points- 1.5                          |
| 4                              | Identify the side of the given bone & write its applied anatomy (Any 2 points)                                          | Identification-1<br>Applied -1                                   |
| 5                              | Write the type of the given bone as per Ayurved & Modern science<br>e.g., Tibia- Nalakasthi, long bone                  | Ayu. Type- 1<br>Modern type- 1                                   |
| 6                              | Identify the indicated muscle on the bone & write whether it originates or inserts there                                | Muscle identification- 1<br>Origin/insertion- 1                  |
| 7                              | Identify the indicated muscle & write its action (Any 2)                                                                | Identification- 1<br>Action-1                                    |
| 8                              | Identify the indicated muscle& write its blood supply/nerve supply                                                      | Identification-1                                                 |

|                                                    |                                                                                                       |                                                         |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
|                                                    |                                                                                                       | Supply-1                                                |
| 9                                                  | Identify the indicated muscle& write its applied anatomy                                              | Identification-1<br>Applied -1                          |
| 10                                                 | Identify the bone and write any two processes                                                         | Identification-1<br>Processes -1                        |
| 11                                                 | Identify the bone and write any two angles                                                            | Identification-1<br>Angle -1                            |
| 12                                                 | Identify the bone and write any one peculiarity related to gender<br>e.g., Hip bone, Clavicle, Sacrum | Identification-1<br>Peculiarities- 1                    |
| <b>Topic- Joints</b>                               |                                                                                                       |                                                         |
| 1                                                  | Identify the joint & write its ligaments (Any 3)                                                      | Identification- 0.5<br>Ligaments- 1.5                   |
| 2                                                  | Identify the joint & write names of actions occurring there (Any 3)                                   | Identification- 0.5<br>Actions- 1.5                     |
| 3                                                  | Identify the joint & write the type of joint as per Ayurved & Modern science                          | Identification- 1<br>Ayu. Type- 0.5<br>Modern type- 0.5 |
| 4                                                  | Identify the joint & write its clinical anatomy (Any two)                                             | Identification- 1<br>Clinical anatomy-1                 |
| 5                                                  | Identify the joint & write its relation (Any two)                                                     | Identification- 1<br>Relation -1                        |
| 6                                                  | Identify the joint & write the movements along with the muscle                                        | Identification- 1<br>Movement -0.5<br>Muscle – 0.5      |
| <b>Topic- Organs</b>                               |                                                                                                       |                                                         |
| 1                                                  | Identify the organ & write name of the Srotas related to it                                           | Identification- 1<br>Srotas-1                           |
| 2                                                  | Identify the organ & write name of the kala related to it                                             | Identification- 1<br>Kala-1                             |
| 3                                                  | Identify the organ & write its Utpatti as per Ayurved                                                 | Identification- 1<br>Utpatti-1                          |
| 4                                                  | Identify the organ & write its visceral impressions (Any 3)                                           | Identification- 0.5<br>Impressions-1.5                  |
| 5                                                  | Identify the organ & write its blood/nerve supply                                                     | Identification- 0.5<br>Supply-1.5                       |
| 6                                                  | Identify the organ & write its borders (Any two)                                                      | Identification- 1<br>Borders -1                         |
| 7                                                  | Identify the organ & write its surfaces (Any two)                                                     | Identification- 1<br>Borders -1                         |
| 8                                                  | Identify the organ& write its applied anatomy (Any 3 points)                                          | Identification-0.5<br>Applied -1.5                      |
| <b>Topic- Radiology</b>                            |                                                                                                       |                                                         |
| 1                                                  | Identify the X-ray & write the structures seen in it (Any 3)                                          | Identification- 0.5<br>Structures-1.5                   |
| 2                                                  | Identify the view of the X-ray & write the marked structures (Any two)                                | Identification- 1<br>Structures-1                       |
| <b>Topic- Central Nervous System/ Sense organs</b> |                                                                                                       |                                                         |
| 1                                                  | Name the lobes of the given organ<br>e.g., cerebrum                                                   | Each lobe – 0.5<br>Total -2                             |



|   |                                                                      |                                       |
|---|----------------------------------------------------------------------|---------------------------------------|
|   |                                                                      |                                       |
| 2 | Identify the sense organ & write its nerve supply<br>e.g., tongue    | Identification- 1<br>Supply-1         |
| 3 | Identify the marked structure and write its applied aspect (Any two) | Identification- 1<br>Applied aspect-1 |

### 6 H - III Viva Voce (70 Marks)

| Recall Questions                                                                                                                                                                                                        | Comprehension Questions                                                                                          | Application Questions                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 40 Marks                                                                                                                                                                                                                | 20 Marks                                                                                                         | 10 Marks                                                                             |
| 1. Sira-Dhamani-Strotas<br>2. Shariropakramaniya Sharir<br>3. Paribhasha Shaarir<br>4. Praman Shaarira<br>5. Anatomical terminologies<br>6. Kalaa Sharir<br>7. Indriya Sharir & Sensory organ<br>8. Reproductive system | 1. Nervous system<br>2. Endocrine system<br>3. Lymphatic system<br>4. Cardiovascular system<br>5. Urinary system | 1. Garbha Sharir,<br>2. Embryology<br>3. Respiratory system<br>4. Digestive system   |
| e.g., Definition, types, numbers, planes, parts, Shlokas, etc.                                                                                                                                                          | e.g., Relations, Blood supply, Nerve Supply, Venous & Lymphatic drainage, etc.                                   | e.g., Applied anatomy, Clinical anatomy, Surgical anatomy, Congenital anomalies etc. |

### 7. Reference and Resources

1. Parishadhya Shabdarth Sharir
2. Pratyaksha shaririram
3. Sharisthana of all Samhita
4. Sushrut Samhita Sharirshtana- Dr. Bhaskar Govind Ghanekar
5. Brihat Shariram Vaidyaratna- P.S. Varrier
6. Abhinava Shariram- Acharya Damodar Sharma Gaur
7. Manava Sharir (Revised Edition)- Prof. Dinkar Govind Thatte
8. Sharir Rachana Vigyan (English)- Vaidya P.G. Athawale
9. Manual of Practical Anatomy Cunningham Practical Manual Vol-1, Vol-2, Vol-3
10. Clinical Anatomy in Ayurveda - Prof. D.G. Thatte & Prof. Suresh Chandra
11. Ayurvedic Human Anatomy - Prof. Dr. Giridhar M. Kanthi
12. Sharir Rachana Vigyan Vol I & II- Dr. Sunil Kumar Yadav
13. Regional Anatomy - B. D. Chaurasia
14. Rachana Sharir Vigyana - Dr. Mahendra Sing
15. Relevant chapters of Brihtrayee and Laghuthrayee
16. Gray's Anatomy
17. Text Book of Human Anatomy- Inderbir Singh
18. Clinical Anatomy- Richard S Snell
19. Fundamentals of Human Anatomy- Dr. Chakraborty
20. Human Osteology - Poddar
21. A Handbook of Anatomical Terminology, Dr. Nidhi Shrivastava, Dr. Ravi Kumar Shrivastava, Dr. Rakesh Kumar Sharma.