COURSE CURRICULUM FOR FIRST PROFESSIONAL BUMS

(PRESCRIBED BY NCISM)

TASHREEHUL BADAN

SUBJECT CODE: UNIUG-TB

HUMAN ANATOMY

(Applicable from 2021-2022 batch onwards for five years or until further notification by NCISM, whichever is earlier)

ncism

प्राणाभिसरः प्राणायतनानाम्

BOARD OF UNANI, SIDDHA AND SOWA RIGPA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058

SCAN ME

UNIUG-TB

NCISM

I professional BUMS

Subject Code: **UNIUG-TB**

Tashreehul Badan

KEY POINTS

Total number of Teaching hours: 600			
Lecture hours (LH) - Theory		**200 Hours**	**200 Hours (LH)**
Paper I	100 Hours		
Paper II	100 Hours		
Non-Lecture hours (NLH) – Theory		**120 Hours**	**400 Hours (NLH)**
Paper I	60 Hours		
Paper II	60 Hours		
Non-Lecture hours (NLH) - Practical		**280 Hours**	

Examination (Papers & Mark Distribution)					
Item	**Theory Component Marks**	**Practical Component Marks**			
		Practical	**Viva**	**Elective**	**IA**
Paper I	**100**	**100**	**20**	**10**	**20**
Paper II	**100**				
Sub-Total	**200**	**150**			
Total marks	**350**				

Preface

While discussing the basics of medical science in any system of medicine *Tashreehul Badan* (Human Anatomy) is the most basic and fundamental subject and Sound knowledge of *Tashreehul Badan* is the main building material of a scholar of medical science. One of the differences between an expert and ordinary professional is the in depth understanding of basic subjects. *Tashreehul Badan* is one of the most fundamental of all medical sciences because of its involvement with structure of human body. *Tashreehul Badan* including general, regional and systemic, is primarily the scientific study of the morphology of the human body. It also provides the basic framework and vocabulary used in all descriptions and communications about the body. *Tashreehul Badan* can be taught regionally or systemically, that is, respectively, studying *Tashreehul Badan* by bodily regions such as the head, neck, thorax, abdomen and limbs or studying by specific systems, such as the nervous or respiratory systems. Students as well as the healthcare professionals, sportsmen or professionals collaborating with the medical field will find it impossible to make progress without the sound knowledge of *Tashreehul Badan.* Unani and other Professionals associated with the regimens of pain relief finds it most difficult to cure a specific pain without the knowledge of macroscopic and microscopic *Tashreeh* of that area. A thorough working knowledge of *Tashreehul Badan* is required by physicians, especially surgeons and doctors working in some diagnostic specialties, such as histopathology and radiology. Good teaching methods are the backbone for the understanding of any subject and these should be chosen very carefully according to the needs of the subject and as far as *Tashreehul Badan* is concerned there are lots of method of teaching and learning *Tashreehul Badan* in which some of the important ones are human structure models, skeletons, textbooks, diagrams, photographs, lectures and tutorials, and in addition, medical students generally also learn gross anatomy through practical experience of dissection and inspection of cadavers. Methods have also improved dramatically, advancing from examination through dissection of cadavers to technologically complex techniques developed including X-ray, ultrasound, and MRI. The study of microscopic anatomy (or histology) can be aided by practical experience examining histological preparations (or slides) under a microscope. So, in a nutshell *Tashreehul Badan* is a complementary basic medical science, which is taught to medical students in their first year at medical school so that their intellectual pursuits regarding medicine are enhanced.

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First BUMS

Course Code and Names of Course

	Course code	**Name of Course**
	UNIUG-TB	Tashreehul Badan (Human Anatomy)

Table 1- Course outcomes and matched Program outcomes

SR1 CO No	**A1 Course Outcome (CO) UNIUG-TB At the end of the course UNIUG-TB, the student should be able to-**	**B1 Course Outcome matched with program outcomes**
CO1	Describe fundamental aspects of Tashreeh ul badan **تشریح البدن** (Human Anatomy).	PO1, PO2
CO2	Understand the discuss Satehi Tashreeh **سطحی تشریح** (Surface Anatomy) along with Jarahiyati **جراحیاتی** (Surgical) importance as well as Itlaqi Tashreeh **اطلاقی تشریح** (Applied Anatomy).	PO2,PO7,PO3
CO3	Describe and role of Tashreeh ul badan **تشریح البدن** (Human Anatomy) in Jarahat **جراحت** (Surgery).	PO2,PO7,PO8
CO4	Discuss role of Tashreeh ul badan **تشریح البدن** (Human Anatomy) in Tashkhees-e-marz **تشخیص مرض** (diagnosis of a disease) in Matab **مطب** clinic.	PO4,PO2,PO5
CO5	Understand and interpret radiological investigations more efficiently due to his/her detailed training in Tashreeh e shuaee **تشریح شعاعی** (Radiological anatomy).	PO2,PO4,PO6
CO6	Understand and read Nabz**نبض** (pulse) efficiently with the help of detailed training in Ilm e urooqi **علم عروقی** (Angiology).	PO2,PO4,PO6
CO7	Discuss Ilaj bit tadbeer**علاج بالتدبیر** (Regimenal therapy) procedures with knowledge of Ilmulezaam **علم العظام** (Osteology), Ilm e urooqi**علم عروقی** (Angiology) as well as Ilmulazlat **علم العضلات** (Myology)	PO2,PO7,PO8,PO3

Table 2: Contents of Tashreehul Badan - Paper – I (Theory)

	A2 List of Topics UNIUG-TB	B2 Term	C2 Marks	D2 Lecture hours	E2 Non-Lecture hours
1	(Tashreeh ul Badan ka ta'aruf) تشریح البدن کا تعارف **Introduction of Human Anatomy (General Anatomy)**	I	10	10	10
	(a) *Nizame Jismani ka mukhtasar ta' aruf* نظام جسمانی کا مختصر تعارف A brief description of systems of the Body)				
	(b) *Tashreehi waz'a wa Muta'alliqa istilahat* تشریحی وضع و متعلقہ اصطلاحات (Anatomical position and related terminologies)				
	(c) Jild aur uske zawaid **جلد اور اسکے زوائد** (Skin and its appendages)				
	(d) Lafaife satahiya wa ghaairah **لفائف سطحیہ و غائرہ** (Superficial and deep Fasciae)				
	(e) Autar, Rabatat aur Akyase zulaliya **اوتار رباطات اور اکیاس زلالیہ** (Tendon, Ligaments and Bursae)				
	(f) Izaam: Aqsaam, af'aal wa ta'azzum **عظام،اقسام، افعال وتعظم** Bones: (Types, functions and ossification)				
	(g) Azlaat: Aqsaam wa af'aal **عضلات، اقسام و افعال** Muscles(Types and functions)				
	(h) Mafasil, Aqsaam wa harakaat **مفاصل، اقسام و حرکات** (Joints, Types and movements)				
	(i) Ilmul janeen wa nasliyat **علم الجنین و نسلیات** (General Embryology and Genetics)				
2	**Raas** راس **(Head)**	I	20	10	5
	(a) Jumjumah aur uske manaazir ka aam bayaan **جمجمہ اور اسکے مناظر کا بیان** (General description and views of Skull).				
	(b) Mufsal Sudughi fakki **مفصل صدغی فکی** (Temporomandibular joint)				

	(c) Jaufe Fam, Lisaan, Asnaan wa Halaq **جوف فم، لسان، اسنان و حلق** (Oral Cavity, Gums, Teeth and Pharynx)				
	(d) Anaf, Jaufe Anf wa Khalaye Hawaiyah **انف،جوف انف وخلایا ہوائیہ** (Nose, nasal cavity and Paranasal sinuses)				
	(e) Uzn اذن (Ear)				
	(f) Mashmoolate Mahjar **مشمولات محجر** (Contents of Orbit): **Aj'faan اجفان** (Eyelids)				
	(g) Aalate dam'a آلات دمع (Lacrimal apparatus) and **Muqlatul Ain مقلۃ العین**(Eye ball)				
	(h) Ghudade Lu'abiya **غدد لعابیہ** (Salivary glands)				
3	**Unq عنق** **(Neck)**	II	10	10	5
	(a) Musallasate Unq ka mukhtasar bayaan **مثلثات عنق کا مختصر بیان** (Brief description of Triangles of the Neck)				
	(b) Azlaate Unq **عضلات عنق** (Muscles of the Neck)				
	(c) Urooq wa a'asab **عروق و اعصاب** (Vessels and nerves)				
	(d) Hanjarah wa Qasbatur riyah **حنجرہ و قصبۃ الریہ** (Larynx and Trachea)				
	(e) Mari **مری** (Oesophagus)				
	(f) Raas wa Unq ke Ghudade Lymphawiyah **راس و عنق کے غدد لمفاویہ** (Lymph nodes of Head and neck)				
	(g) Fuqrate Unq **فقرات عنق** (Cervical Vertebrae)				
	(h) Ghudade Darqiyah wa Jaar darqiyah **غدد درقیہ وجار درقیہ** (Thyroid and parathyroid glands)				
4	**Nizame A'asab** **نظام اعصاب** **(Nervous system)**	II	10	15	5

	(a) Aghshiya-e-Dimagh, Dimagh aur Nukha'a ka mukhtasar bayaan **اغشیہ دماغ، دماغ اور نخاع کا مختصر بیان** (A brief description of Meanings, Brain and spinal cord)				
	(b) A'asabe Nukha wa Dimaghi **اعصاب نخاع و دماغی** (Cranial and Spinal nerves)				
5	**Sadr** **صدر** **(Thorax)**	II	30	35	20
	(a) Jaufe Sadr **جوف صدر** (Thoracic Cavity)				
	(b) Azla'a, Azmul Qas wa fuqraate sadr اضلاع عظم القص و فقرات صدر (Ribs, Sternum and Thoracic Vertebrae)				
	(c) Azlaate sadr **عضلات صدر** (Muscles of the Thorax)				
	(d) Ghishaur riyah wa riyatain غشاءالریہ و ریتین (Pleura and Lungs)				
	(e) **Hijabe munassifussadr wa mashmoolat** **حجاب منصف الصدر و مشمولات** (Mediastinum & its contents)				
	(f) Urooq wa A'asab aur majrae sadr **عروق و اعصاب اورمجری صدر** (Vessels, Nerves and Thoracic duct)				
	(g) Ghilaful qalb wa Qalb **غلاف القلب و قلب** (Pericardium and Heart)				
	(h) Hijabe Hajiz **حجاب حاجز** (Diaphragm)				
	(i) Saddyain ثد یئین (Mammary Gland)				
6	**Tarfe A'ala** **طرف اعلی'** **(Upper Limb)**	III	20	20	15
	(a) Izam **عظام** (Bones)				
	(b) Azlaat **عضلات**				

	(Muscles)				
	(c) Mafasil **مفاصل** (Joints)				
	(d) Ibt wa hufrae mirfaqiyah ابط و حفرہ مرفقیہ (Axilla and Cubital fossa)				
	(e) Urooq wa A'asab **عروق و اعصاب** (Vessels and nerves)				
Total				**100**	**60**

Table 2: Contents of Tashreehul Badan – Paper – II (Theory)

	A2 **List of Topics UNIUG-TB**	**B2** **Term**	**C2** **Marks**	**D2** **Lecture hours**	**E2** **Non-Lecture hours**
1	**(Batan) بطن** **(Abdomen)**	II	40	40	30
	a. **اقسام بطن(Aqsam-e-Baṭan)** **(Abdominal regions)**				
	b. **مقدم دیوار بطن** **(Muqaddam Deewar-e-Baṭan)** **(Anterior Abdominal wall)**				
	c. **عضلہ موربہ ظاہرہ اور موربہ غائرہ** **External Oblique and Internal Oblique muscle**				
	d. **عضلہ مستعرضہ بطنیہ و مستقیمہ بطنیہ** **Transversus Abdominis and Rectus Abdominis muscle**				
	e. **لفافہ مستقیمہ(Rectus sheath)**				
	f. **عضلہ معلقۃ الخصیہ و مخروطیہ(Cremaster and Pyramidalis muscle)**				
	g. **دیوار بطن کے اعصاب و عروق** **Arteries and nerves of the anterior abdominal wall**				
	h. **لفافہ مستعرضہ(Fascia Transversalis)**				
	i. **خطہ اربیہ و قنات اربیہ** **Inguinal region (groin) and Inguinal canal**				
	j. **باریطون، ثرب، ماساریقا (Peritoneum, Omentum and Mesentry)**				

	k. رباطات باریطون (Ligaments of peritoneum)				
	l. مری کا بطنی حصہ اور اطلاقی تشریح Abdominal part of the Oesophagus and its applied anatomy				
	m. معدہ اور اطلاقی تشریح Stomach and its applied anatomy				
	n. اثنا عشری اور اطلاقی تشریح (Duodenum and its applied anatomy)				
	o. معاء صائم اور اطلاقی تشریح (Jejunum along with its applied anatomy)				
	p. معاء لفائفی اور اطلاقی تشریح (Ileum along with its applied anatomy)				
	q. کبد اور اطلاقی تشریح (Liver and its applied anatomy)				
	r. ورید باب الکبد اور اطلاقی تشریح (Portal vein and its applied anatomy)				
	s. آلات صفراویہ کبدی خارجی اور اطلاقی تشریح Extrahepatic Biliary Apparatus along with its applied anatomy				
	t. بانقراس اور اطلاقی تشریح (Pancreas and its applied anatomy)				
	u. طحال اور اطلاقی تشریح (Spleen and its applied anatomy)				
	v. اعور اور اطلاقی تشریح (Caecum and its applied anatomy)				
	w. زائدہ دودیہ اور اطلاقی تشریح (Appendix and its applied anatomy)				
	x. قولون اور اطلاقی تشریح (Colon and its applied anatomy)				
	y. ورید ماساریقا اعلیٰ واسفل (Superior and Inferior Mesenteric Vessels)				
	z. کلیتین اور اطلاقی تشریح (Kidneys and its applied anatomy)				
	aa. اعضاء زنانہ و مردانہ خارجی اور اطلاقی تشریح External male and female genital organs and its applied anatomy				
	bb. غدہ فوق الکلیہ اور اطلاقی تشریح Suprarenal Glands and its applied anatomy				
	cc. دیوار بطن مؤخر (Posterior Abdominal Wall)				
	dd. اورده بطنی (Abdominal Aorta)				
	ee. اجوف اسفل (Inferior Vena Cava)				
2	(*A'ana wa ejan*) عانہ و عجان (Pelvis and perineum)	III	30	30	15
	(a) *Hauz e A'anaa aur Ejan* حوض عانہ اور عجان (Pelvis, perineum and Ischiorectal fossa)				
	(b) *Azmul ajuz wa- us'us* عظم العجز و عصعص (Sacrum and coccyx)				

	(c) *Azlaate A'ana* ***عضلات عانہ*** (Muscles and joints of pelvis)				
	(d) *Ah'shae Aana* **احشاء عانہ** (Pelvic viscera and External Male/Female sex organs)				
3	***Tarfe Asfal* طرف اسفل** **(Lower Limb)**	I	30	30	15
	(a) *Izaam* ***عظام*** (Bones)				
	(b) *Azlaat* ***عضلات*** (Muscles)				
	(c) *Mafasil* ***مفاصل*** (Joints)				
	(d) *Urooq wa A'asab* ***عروق و اعصاب*** (Vessels and nerves)				
	(e) *Hufrajat* ***حفراجات*** (Fossae)				
	(f) *Musallase Fakhzi* مثلث فخذی (Femoral triangle)				
	(g) *Qanate Muqarribah* ***قنات مقربہ*** (Adductor canal)				
	(h) *Hufrae mabiziyah* حفرہ مابضیہ (Popliteal fossa)				
Total				**100**	**60**

Table 2: Contents of Tashreehul Badan – (Practical)

	A2 **List of Topics UNIUG-TB**	**B2** **Term**	**C2** **Marks**	**D2** **Lecture hours**	**E2** **Non-Lecture hours**
1	(A) Brief description of Anatomy Law, Preservation of Cadaver, Body parts and Specimen.	I	20		60

	(B) Prosection of the parts of the body (Cadaver, Audio-Visual aids or other techniques available e.g., CD's, Software or other advanced technology)	I, II			
	(C) Dissection/Demonstration of the parts of the body (Cadaver, Audio-Visual aids or other techniques available e.g., CD's, Software or other advanced technology)	II, III			
2	Osteology and Arthrology with the help of bones, models, charts, X-Ray and specimens. • Bones and Joints of Neurocranium • Bones and Joints of Viscerocranium • Bones and Joints of Lower limb	I	30		100
	• Bones and Joints of Thoracic cage • Vertebral column and associated Joints	II			
	• Bones and Joints of Upper limb • Bones and Joints of Pelvis • Associated Radiological Anatomy of all above	III			
3	Practical study of all viscera of body with the help of models, charts and specimens.		30		100
	• Brain & Spinal cord	I			
	• Viscera and glands of neck • Lungs & Heart • Abdominal Viscera	II			
	• Pelvic Viscera • Fossae and structures of Upper and lower Limb - Cubital and Popliteal fossa	III			
4	Study of Anatomy on living subject (Patient) • Inspection, Palpation of Abdominal Viscera • Counting of Ribs • Clinical or Applied Anatomy • Heart/Lung sounds with demonstration of Auscultatory • Identification of different bony landmarks • Deep tendon reflexes • Superficial reflexes	III	20		20
Total					**280**

Table 3: Learning objectives of Tashreehul Badan UNIUG-TB Paper – I (Theory)

A3 Course outcome	B3 Learning Objective (At the end of the session, the Students should be able to)	C3 Domain/Sub	D3 Must to know/desirable to know/Nice to know	E3 Level Does/shows/ Knows how/ Knows	F3 T-L method	G3 Assessment	H3 Formative /summative	I3 Term	J3 Inegration
Topic 1- Tashreehul Badan ka ta'aruf (General Human Anatomy) (Lecture:- **10** hours, Non lecture **10** hrs)									
CO1, CO6	Describe -Introduction and history of anatomy -Subdivision of anatomy	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F&S	I	
CO1,CO5	Describe briefly all systems of the Body	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	
CO1,CO5	Describe positions and planes of the body	Cognitive/ Comprehension	MK	Knows how	Animation/Lecture	Written &viva	F&S	I	Surgery and Radiology
CO1,CO5	Describe -Anatomical terms:	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	
CO1,CO5	Describe Body regions: Body cavities (major & minor)	Cognitive/ Recall	MK	Knows how	Lecture/ Discussion	Written &viva	F&S	I	Radiology
CO1	Describe layers and surface pattern of skin	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	Dermatology
CO1	Describe Appendages of skin(Glands and specialised cells)	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	

CO1	Describe functions of skin	Cognitive/ Recall	DK	Knows	Lecture	Written &viva	F&S	I	
CO1	Describe Dermatomes and Angiosomes of skin	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	
CO1	Estimate surface area of skin affected by burn	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	
CO1	Describe anatomy of ageing skin	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	
CO1	Describe Superficial and deep Fasciae	Cognitive/ Recall	DK	Knows	Lecture/ Discussion	Written &viva	F&S	I	
CO1,CO2	Describe Tendon, Ligaments & Bursae	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	I	
CO1	Describe Bones and Cartilages	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	I	Orthopedics
CO1	Describe Muscular system: Naming of muscles -According to location -According to shape -According to number of heads -According to attachments -According to action -According to direction of fibres	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	I	Pain clinic

	-According to size of muscle								
CO1	Describe Gross features of a typical skeletal muscle	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	I	
CO1	Describe Joints	Cognitive/ Recall	MK	Knows	Animation/Lecture	Written &viva	F&S	I	Orthopedics
CO1	DescribeVertebral column:	Cognitive/ Recall	MK	Knows	Animation/Lecture	Written &viva	F&S	I	Orthopedics and Pain clinic
CO2,CO7	Describe Blood vessels: -Anastomosis: -Types of blood circulation	Cognitive/ Application	MK	Knows how	Lecture	Written &viva	F&S	I	Cardiology
CO2,CO7	Describe: -Lymphatic system -Components of lymphatic system	Cognitive/ Application	MK	Knows how	Lecture	Written &viva	F&S	I	Medicine
CO2,CO7	Describe General Embryology and genetics	Cognitive/ Application	MK	Knows how	Lecture	Written &viva	F&S	I	
Topic 2 - *Raas* (Head) (Lecture:- **10** hours, Non lecture **5** hrs)									
CO1,CO6	Describe Scalp	Cognitive/Comprehension	MK	Knows how	Lecture	Written	F&S	I	
CO1,CO5	Explain Temporomandibular Joint	Cognitive/Comprehension	MK	Knows how	Lecture /Video	Written	F&S	I	

CO1,CO5	Describe Cranial cavity	Cognitive/Comprehension	DK	Knows how	Lecture /Video	Written &viva	F&S	I	
CO1,CO5	Describe Cranial fossae and foramina of skull	Cognitive/Comprehension	DK	Knows how	Lecture /Video	Written &viva	F&S	I	
CO1,CO5	Explain Articulations of Skull	Cognitive/Comprehension	MK	Knows how	Animation/Lecture	Written	F&S	I	
CO1,CO5	Explain Fontanelles	Cognitive/Recall	MK	Knows	Lecture/Video	Written	F&S	I	
CO1,CO5	Explain Venous sinuses of skull	Cognitive/Comprehensive	MK	Knows	Lecture/Video	Written	F&S	I	
CO1,CO5	Describe sutures and related bony landmarks of skull	Cognitive/Recall	MK	Knows	Animation & Lecture	Written &viva	F&S	I	
CO1,CO5	Describe Normae -Norma verticalis -Norma occipitalis -Norma lateralis -Norma frontalis -Norma basalis	Cognitive/Recall	MK	Knows	Lecture/Maps	Written &viva	F&S	I	Radiology

CO1	Explain Pterion	Cognitive/Recall	MK	Knows	Departmental Seminar & Lecture	Written &viva	F&S	I	
CO1	Explain Mastoid and Styloid Process	Cognitive/Recall	MK	Knows	Lecture	Written &viva	F&S	I	
CO1,CO5	Describe bones of the neurocranium: -Parietal -Frontal -Temporal -Occipital -Ethmoid -Sphenoid	Cognitive/Recall	MK	Knows	Lecture	Written &viva	F&S	I	Radiology
CO1,CO5	Describe bones of the viscerocranium: -Mandible -Maxilla -Zygomatic -Nasal -Lacrimal -Vomer -Platine -Inferior choncha	Cognitive/ Recall	MK	Knows	Departmental Seminar/Lecture	Written &viva	F&S	I	
CO1	Explain orbit, extra ocular muscles, eyelids and eyeball	Cognitive/ Comprehension	DK	Knows how	Departmental Seminar/Lecture	Written &viva	F&S	I	Opthalmology
CO1	Explain Lacrimal	Cognitive/ Comprehension	DK	Knows how	Animation/Lecture	Written &viva	F&S	I	Opthalmology

	apparatus								
CO1	Enlist Para nasal Sinuses	Cognitive/ Comprehension	MK	Knows	Lecture/ Video	Written &viva	F&S	I	
CO1,CO2	Describe Special features of the new born skull	Cognitive/ Comprehension	NK	Knows	Early Clinical exposure	Written &viva	F&S	I	Obstetrics
CO1	Explain Teeth	Cognitive/ Recall	NK	Knows	Lecture/Animation	Written &viva	F&S	I	
CO1,CO4	Describe Tongue, taste buds and papillae	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	I	
CO1, CO	Describe Salivary Glands	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	I	
CO1, CO4	Explain Oral cavity	Cognitive/ Comprehension	DK	Knows	Lecture / Discussion	Written &viva	F&S	I	ENT
CO1,CO3	Explain Nose, Nasal septum and Nasal cavity	Cognitive/ Comprehension	MK	Knows how	Lecture/Video	Written &viva	F&S	I	ENT
CO1,CO4	Describe Ear and Ear ossicles	Cognitive/ Comprehension	MK	Knows how	Lecture &Video	Written &viva	F&S	I	ENT
CO1	Enlist Muscles of Mastication	Cognitive/ Recall	MK	Knows how	Lecture	Written &viva	F&S	I	

CO1	Enlist Muscles of Face	Cognitive/ Recall	MK	Knows	Lecture/Project based learning	Written &viva	F&S	I	
CO1	Enlist Muscles of Head	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	I	
CO1,CO4	Describe Infra temporal fossa	Cognitive/ Comprehension	NK	Knows	Lecture and Video	Written &viva	F&S	I	Radiology
CO1,CO4	Describe pterygopalatine fossa:	Cognitive/ Comprehension	NK	Knows	Lecture and Video	Written &viva	F&S	I	
CO1,CO4	Describe Auditory tube	Cognitive/ Comprehension	NK	Knows	Lecture	Written &viva	F&S	I	ENT
CO2,CO7	Explain applied Anatomy of Head	Cognitive/ Application	MK	Knows	Animation/Lecture	Written &viva	F&S	I	
Topic 3 - *Unq* (Neck) (Lecture:- **10** hours, Non lecture **5** hrs)									
CO1,CO6	Describe Pharynx: -Nasopharynx: -Oropharynx: - Laryngopharynx:	Cognitive/ Comprehension	MK	Knows	Lecture/Video	Written &viva	F&S	II	
CO1,CO6	Describe Palate	Cognitive/ Comprehension	MK	Knows	Lecture/ Discussion	Written &viva	F&S	II	
CO1,CO5	Describe palatine tonsils	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	II	

CO1,CO5	Enlist bones of Neck -Cervical Vertebrae - Hyoid	Cognitive/ Comprehension	DK	Knows how	Lecture/ Departmental Seminar	Written &viva	F&S	II	
CO1,CO5	Explain Waldeyer's ring	Cognitive/ Comprehension	MK	Knows	Lecture /Video	Written &viva	F&S	II	
CO1,CO5	Describe Atlanto Axial Joint	Cognitive/ Comprehension	DK	Knows how	Lecture/Animation	Written &viva	F&S	II	
CO1,CO5	Describe Atlanto Occipital Joint	Cognitive/ Recall	DK	Knows how	Lecture	Written) &viva	F&S	II	
CO1,CO5	Describe Larynx: -Cartilages -Ligaments -Membranes -Joints -Cavity -Muscles Extrinsic Intrinsic	Cognitive/ Recall	MK	Knows	Lecture	Written) &viva	F&S	II	ENT
CO1	Explain Thyroid Gland	Cognitive/ Comprehension	DK	Knows	Lecture / Discussion	Written &viva	F&S	II	
CO1,CO2	Describe Oesophagus and associated applied aspect	Cognitive/Recall	MK	Knows	Lecture	Written &viva	F & S	II	
CO1,CO2	Describe Trachea and associated applied aspect	Cognitive/Recall	MK	Knows	Lecture/Video	Written &viva	F & S	II	

CO1	Explain Para Thyroid Gland	Cognitive/Recall	DK	Knows	Lecture/ Discussion	Written &viva	F&S	II	
CO1,CO2	Explain Triangles of Neck: -Boundaries -Divisions -Contents	Cognitive/ Comprehension	MK	Knows	Lecture/Animation	Written &viva	F&S	II	
CO1	Enlist Muscles of Neck -Anterior -Superficial -Suprahyoid -Infrahyoid -Anterior vertebral -Lateral vertebral -Posterior -Deep	Cognitive/ Recall	MK	Knows	Lecture/Video	Written &viva	F&S	II	Orthopedics
CO1	Enlist Fascia of Neck	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	II	
CO1	Describe Pharyngeal arches	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	II	
CO1	Enlist Vessels of Neck: -Common carotid artery (Carotid sheath, carotid sinus and carotid body)	Cognitive/ Recall	MK	Knows	Lecture/ Discussion	Written &viva	F&S	II	

	-Vertebral artery -Thyrocervical trunk -Jugular veins								
CO2,CO7	Describe Pretracheal and Prevertebral fascia	Cognitive/ Application	MK	Knows how	Lecture	Written &viva	F&S	II	
CO2,CO7	Describe Applied Anatomy of Neck	Cognitive/ Application	MK	Knows how	Early clinical exposure	Written &viva	F&S	II	
Topic 4 - ***Nizame A'asab wa dimaghiya***(Nervous System**)** (Lecture:- **15** hours, Non lecture **5** hrs)									
CO1,CO2	Explain division of the NS	Cognitive/Recall	MK	Knows	Lectures / group discussion,	Written / viva	F&S	II	
CO1,CO2, CO6	Explain meninges -Duramater: -Arachnoid mater -Piamater	Cognitive/Recall	MK	Knows	Lecture/ Animation	Written / viva	F & S	II	
CO1,CO2	Demonstrate diagram of meninges	Cognitive/ Comprehension	MK	Knows	demonstration	practical and viva	F & S	II	
CO1,CO5, CO2	Describe Brain - Prosencephalon - Mesencephalon - Rhombencephalon	Cognitive/Recall	MK	Knows	lecture	Written / viva	F & S	II	Neurology

CO1,CO5, CO2	Describe Spinal cord -TS of spinal cord -Blood supply -Meninges -Denticulate ligament	Cognitive/Recall	MK	Knows	Animation/Lecture	Written / viva	F & S	II	Neurology
CO1,CO2	Describe Peripheral nervous system -Spinal nerves	Cognitive/Recall	MK	Knows	Lectures	Written / viva	F&S	II	
CO1,CO2	Describe Cranial nerves	Cognitive/Recall	MK	Knows	Lectures/ Discussion	Written / viva	F&S	II	
CO1,CO2	Describe Autonomic Nervous System - Sympathetic Nervous System (thoracolumbar outflow) - Parasympathetic Nervous System (cranio-sacral outflow) - Enteric Nervous System (ENS)	Cognitive/Recall	MK	Knows	Lectures	Written / viva	F&S	II	
CO1,CO2	Explain Ventricles of Brain	Cognitive/Recall	MK	Knows	Lectures / discussion,	Written / viva	F&S	II	

CO1,CO2	Draw diagram of brain	Cognitive/Recall	MK	Knows	Animation/Lectu re)	Practical and viva	F & S	II	
CO1	Draw diagram of spinal cord	Cognitive/Recall	DK	Knows How	Lecture/Animati on	practical	F & S	II	
CO1,CO3, CO2	Describe Structure of neuron	Cognitive/Recall	DK	Knows	Lecture/Maps	viva and practical	F & S	II	
CO1,CO3, CO2	Explain supporting cells of Neuron -Neuroglia (CNS) -Schwann and Satellite (PNS)	Cognitive/Recall	DK	Knows	Lecture/Video	viva and practical	F & S	II	
CO1,CO3, CO2	Explain Cerebrospinal fluid	Cognitive/Recall	MK	Knows	Lecture/Maps	viva and practical	F & S	II	
CO1,CO3, CO2	Explain Limbic system	Cognitive/Recall	DK	Knows	Lecture	viva and practical	F & S	II	
CO1,CO3, CO2	Explain Thalamus & Hypothalamus	Cognitive/Recall	MK	Knows	Lecture	viva and practical	F & S	II	
CO1,CO3, CO2	Explain Pineal body	Cognitive/Recall	DK	Knows	Lecture / /Animation	viva and practical	F & S	II	
CO1,CO3, CO2	Explain Circle of Willis	Cognitive/Recall	MK	Knows	Guest Lecture/Video	viva and practical	F & S	II	
CO1,CO2	Describe Sensory system	Cognitive/Recall	MK	Knows	Lecture	Written / viva	F & S	II	
CO1,CO3	Describe motor system	Cognitive/Recall	MK	Knows	Lecture	Written / viva	F & S	II	Neurology

CO1,CO2	Identify Prenatal and post-natal development of brain	Cognitive/ Comprehension	NK	Shows	Lecture/Maps	practical and viva	F & S	II	
Topic 5- *Sadr* (Thorax**) Time** (Lecture:- **35** hours, Non lecture **20** hrs)									
CO1	Describe Thoracic wall, its functions and associated applied aspect -Muscles -Joints -Costal Cartilages	Cognitive/Recall	MK	Knows	Lectures/group discussion /Demonstration	Written &viva	F & S	II	
CO1,CO2	Describe Mediastinum and its Division	Cognitive/Recall	MK	Knows	Lectures/ video	Written &viva	F & S	II	
CO1,CO2	Describe Thoracic Cavity and suprapleural membrane	Cognitive/Recall	MK	Knows	Departmental Seminar & Demonstration	Written &viva	F & S	II	
CO3 CO1	Describe Sternal angle/ Angle of Louis	Cognitive/Recall	DK	Knows	Lecture/Maps	Written &viva	F & S	II	
CO1 CO2	Describe Bones of Thorax and associated applied aspect -Sternum	Cognitive/Recall	MK	Knows	Lectures/ group discussion	Written &viva	F & S	II	

	-Thoracic vertebra -Rib								
CO3 CO1	Describe Intercostal space -Muscles - Neuromuscular bundle	Cognitive/Recall	DK	Knows	Lectures/ group discussion	Written &viva	F & S	II	
CO1,CO2	Describe Pleura and associated applied aspect	Cognitive/Recall	MK	Knows	Lecture/Maps	Written &viva	F & S	II	
CO3	Describe Lungs and associated applied aspect	Cognitive/Recall	MK	Knows	Lectures/ video	Written &viva	S	II	
CO1, CO2,CO5	Describe Diaphragm and associated applied aspect	Cognitive/Recall	MK	Knows	Animation/Lecture	Written &viva	F & S	II	
CO1, CO2, CO5	Describe Mammary Gland) and associated applied aspect	Cognitive/Recall	MK	Knows	Lectures/group discussion	Written &viva	F& S	II	
CO1,CO2	Describe Pericardium and associated applied aspect	Cognitive/Recall	MK	Knows	Lectures / Maps	Written &viva	F & S	II	
CO1, CO3, CO6, CO7	Describe Heart and associated	Cognitive/Comprehension	DK	Knows	Lecture/Maps	Written &viva	F & S	II	

	applied aspect								
CO1,CO2	Describe Azygos system of Veins	Cognitive/Recall	MK	Knows	Lecture/ Discussion	Written &viva	F & S	II	
CO1	Describe Aorta	Cognitive/Recall	MK	Knows	Lecture/Maps	Written &viva	F & S	II	
CO1,CO2	Describe Superior and Inferior Vena cava	Cognitive/Recall	MK	Knows	Lectures	Written &viva	F & S	II	
CO1,CO2	Explain Thoracic duct	Cognitive/Recall	MK	Knows	Lectures/ discussion	Written &viva	F & S	II	
CO1	Enlist Arteries and veins of Thorax	Cognitive/Recall	DK	Knows	Small group discussion and lecture	Written &viva	F & S	II	
CO1	Describe Thymus	Cognitive/Recall	DK	Knows	Lectures	Written &viva	F & S	II	
Topic 6 - *Tarfe A'ala* (Upper Limb) (Lecture:- **20** hours, Non lecture **15** hrs)									
CO1,CO6	Describe Bones of the pectoral (shoulder) girdle and associated applied aspect -Clavicle -Scapula	Cognitive/ Comprehension	MK	Knows how	Lecture/Maps	Written &viva	F&S	III	

CO1,CO6	Describe Muscles connecting upper limb to the thoracic wall	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F&S	III	
CO1,CO6	Describe Muscles connecting upper limb to the vertebral column	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F&S	III	
CO1,CO6	Describe Muscles connecting scapula to the humerus	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F&S	III	
CO1,CO5	Describe Joints of Upper limb and associated applied aspect -Shoulder -Elbow -Wrist -Carpometacarpal -Metacarpophalangeal -Proximal-interphalangeal -Distal-interphalangeal	Cognitive/ Comprehension	DK	Knows how	Lecture/Video	Written &viva	F&S	III	

	joint								
CO1,CO5	Describe Axilla and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/Video	Written &viva	F&S	III	
CO1,CO5	Describe Cubital fossa and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Animation/Lecture	Written &viva	F&S	III	
CO1,CO5	Describe Vessels of upper limb and associated applied aspect	Cognitive/ Comprehension	DK	Knows	Demonstration	Written &viva	F&S	III	
CO1,CO5	Describe the upper arm and associated applied aspect -Contents of anterior fascial compartment -Contents of posterior fascial compartment	Cognitive/ Recall	MK	Knows	Lecture/ Discussion	Written &viva	F&S	III	
CO1,CO5	Describe Bones of the Upper arm and associated applied aspect -Humerus	Cognitive/ Recall	MK	Knows	Departmental Seminar & Lecture	Written &viva	F&S	III	

CO1,CO5	Describe Forearm: -Contents of the anterior fascial compartment -Muscles: (origin, insertion, actions) -Contents of the lateral fascial compartment -Contents of the posterior fascial compartment	Cognitive/ Recall	MK	Knows	Demonstration	Written &viva	F&S	III	
CO1,CO5	Describe Bones of the Forearm and associated applied aspect -Radius -Ulna	Cognitive/ Recall	MK	Knows	Lecture/ DIscussion	Written &viva	F&S	III	
CO1,CO5	Describe Anatomical snuff box (boundaries, contents and clinical anatomy)	Cognitive/ Recall	MK	Knows	Demonstration	Written &viva	F&S	III	

CO1,CO2	Describe the palm and associated applied aspect	Cognitive/ Comprehension	DK	Knows how	Small group discussion	Written &viva	F&S	III	
CO1,CO2	Describe dorsum of hand and associated applied aspect	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	III	
CO1,CO5	Describe Bones of the hand and associated applied aspect -Carpals -Metacarpals -Phalanges	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	III	
CO1,CO2	Explain Brachial Plexus and Major nerves of upper limb	Cognitive/ Comprehension	MK	Knows	Lecture/Video	Written &viva	F&S	III	
CO1,CO2	Describe rotator cuff	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	III	

Table 3: Learning objectives of Tashreehul Badan UNIUG-TB Paper – II (Theory)

A3 Course	B3 Learning Objective	C3 Domain/Sub	D3 Must to	E3 Level Does/show	F3 T-L method	G3 Assessmen	H3 Formative	I3 T e	J3 Integratio n

outcome	(At the end of the session, the Students should be able to)		know/desirable to know/Nice to know	s/ Knows how/ Knows		t	/summative	rm	
Topic 1 - *Batn* (Abdomen) (Lecture:- **40** hours, Non lecture **30** hrs)									
CO1	Describe the Abdominal regions and enlist their contents	Cognitive/ Comprehension	MK	Knows how	Lecture/video	Written & viva	F & S	II	
CO1 CO2	Describe the Anterior Abdominal wall and enumerate its surface landmarks	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1	Enlist and explain the layers of Anterior Abdominal Wall and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Describe muscles of anterior abdominal walland associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Describe External Oblique and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	

CO1	Describe Internal Obliqueand associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/	Written & viva	F & S	II	
CO1	Describe Transverses Abdominis and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Describe Rectus Abdominis and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/Map	Written &viva	F & S	II	
CO1	Describe rectus sheathand associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1	Describe Cremaster and Pyramidalis and associated applied aspect	Cognitive/ Comprehension	DK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Identify the arteries of the anterior abdominal walland associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Enlist deep nerves of the anterior abdominal walland associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	

CO1	Define Fascia Transversalis and associated applied aspect	Cognitive/ Comprehension	DK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Describe the Inguinal region (groin)and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Explain the Inguinal canaland associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/Maps	Written & viva	F & S	II	
CO1,CO 2	Describe Peritoneum: Peritoneal pouches, recesses, spaces and gutters and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Project Based learning/Lecture	Written & viva	F & S	II	
CO1	Identify and discuss the subdivisions of peritoneal cavity and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/Discussion	Written &viva	F & S	II	
CO1 CO2	Describe abdominal oesophagus and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1 CO2	Describe Anatomy of	Cognitive/ Comprehensi	MK	Knows how	Departmental Seminar & Lecture	Written & viva	F & S	II	

	Stomach and associated applied aspect	on							
CO1	Describe duodenum, ileum and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1 CO2	Describe Jejunum and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1 CO2	Describe Gallbladder: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1 CO2	Describe Liver and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1 CO2	Describe the anatomy of portal vein and its applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1 CO2	Describe Extra hepatic biliary apparatus and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/Discussion	Written &viva	F & S	II	
CO1 CO2	Describe Pancreas and	Cognitive/ Comprehensi	MK	Knows how	Departmental Seminar & Lecture	Written & viva	F & S	II	

	associated applied aspect	on							
CO1	Describe Spleen: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Describe Caecum: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1 CO2	Describe Appendix: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F & S	II	
CO1 CO2	Describe Ascending colon: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1 CO2	Describe Descending colon: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Describe the Superior and Inferior Mesenteric Vessels	Cognitive/ Comprehension	MK	Knows how	Lecture/Discussion	Written & viva	F & S	II	
CO1	Describe Kidneys: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Departmental Seminar & Lecture	Written & viva	F & S	II	

CO1	Describe foramen of Winslow	Cognitive/ Comprehension	MK	Knows how	Lecture/Maps	Written & viva	F & S	II	
CO1	Describe Coelic trunk	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	
CO1	Describe Cisterna chyli	Cognitive/ Comprehension	MK	Knows how	Lecture/Maps	Written & viva	F & S	II	
CO1	Describe Ureter and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/Demonstration	Written & viva	F & S	II	
CO1	Describe Suprarenal glands: and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture/Discussion	Written &viva	F & S	II	
CO1	Explain the Posterior Abdominal Wall and its structure	Cognitive/ Comprehension	DK	Knows how	Lecture/Demonstration	Written &viva	F & S	II	
CO1	Describe the muscles of the Posterior Abdominal Wall	Cognitive/ Comprehension	MK	Knows how	Lecture/Demonstration	Written & viva	F & S	II	
CO1	Name and explain the fasciae of posterior abdominal wall	Cognitive/ Comprehension	MK	Knows how	Lecture/Discussion	Written &viva	F & S	II	
CO1	Explain abdominal aorta and associated applied aspect	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F & S	II	

CO1	Explain Inferior vena cava and associated applied aspect Portal vein	Cognitive/ Comprehension	DK	Knows how	Lecture/Demonstration	Written & viva	F & S	II	
CO1	Label the lymphatics and lymph nodes of the Posterior abdominal wall	Cognitive/ Comprehension	MK	Knows how	Lecture/Demonstration	Written & viva	F & S	II	
CO1	Explain Nerves on the posterior abdominal wall and associated applied aspect	Cognitive/ Comprehension	NK	Knows how	Lecture/Discussion	Written & viva	F & S	II	
CO1,CO 5	Describe Lumbar vertebrae	Cognitive/ Comprehension	MK	Knows how	Departmental Seminar & Lecture	Written &viva	F&S	II	
Topic 2- *A'ana wa ejan* (Pelvis and Perineum) (Lecture:- **30** hours, Non lecture **15** hrs)									
CO1,CO 6	Explain Bony pelvis -Pelvic walls -Pelvic diaphragm -Bony landmarks	Cognitive/ Comprehension	MK	Knows	Demonstration & Lecture	Written &viva	F&S	III	Obstetrics
CO1,CO 5	Describe Sacrum and coccyx:	Cognitive/ Comprehension	DK	Knows how	Demonstration & Lecture	Written & viva	F&S	III	
CO1,CO 5	Describe Muscles of pelvic wall and floor	Cognitive/ Comprehension	MK	Knows how	Lecture	Written & viva	F&S	III	
CO1,CO 5	Describe Muscles of	Cognitive/ Comprehensi	MK	Knows how	Lecture	Written & viva	F&S	III	

	perineum	on							
CO1,CO 5	Describe Contents of the pelvic cavity -Sigmoid colon -Rectum	Cognitive/ Comprehension	DK	Knows how	Lecture	Written & viva	F&S	III	
CO1,CO 5	Describe Pelvic viscera: -Ureters -Urinary bladder -Urethra	Cognitive/ Recall	MK	Knows	Lecture	Written & viva	F&S	III	
CO1,CO 5	Describe Male genital organs -Prostate -Testes -Penis -Seminal vesicles -Bulbourethral glands	Cognitive/ Recall	MK	Knows	Lecture	Written & viva	F&S	III	
CO1,CO 5	Explain Female genital organs -Ovaries -Uterine tubes -Uterus -Vagina -Vulva -Mammary glands	Cognitive/ Recall	MK	Knows	Lecture	Written & viva	F&S	III	
CO1	Describe The perineum -Anal triangle	Cognitive/ Comprehension	DK	Knows how	Small group discussion	Written & viva	F&S	III	

	-Superficial perineal pouch -Deep perineal pouch								
CO1	Describe Urogenital diaphragm	Cognitive/ Recall	MK	Knows	Small group discussion	Written &viva	F&S	III	
CO1,CO 2	Describe Ischiorectal fossa	Cognitive/ Comprehensi on	MK	Knows how	Demonstration &Small group discussion	Written &viva	F&S	III	
CO1	Explain Anal canal	Cognitive/ Comprehensi on	NK	Knows how	Lecture	Written &viva	F&S	III	
CO1	Describe Urogenital triangle	Cognitive/ Comprehensi on	MK	Knows how	Lecture/Maps	Written &viva	F&S	III	
CO1	Explain Joints of the pelvis	Cognitive/ Comprehensi on	MK	Knows how	Demonstration &Small group discussion	Written &viva	F&S	III	
CO1	Describe Pelvic fascia, Pelvis and peritoneum	Cognitive/ Comprehensi on	MK	Knows how	Lecture/Maps	Written &viva	F&S	III	
CO1	Describe Sex differentiation of pelvis	Cognitive/ Comprehensi on	MK	Knows how	Demonstration & Small group discussion	Written &viva	F&S	III	
CO1	Describe Clinical Anatomy of Pelvis	Cognitive/ Comprehensi on	MK	Knows how	Discussion	Written &viva	F&S	III	
Topic 3- *Tarfe Asfal* (Lower Limb) (Lecture:- **30** hours, Non lecture **15** hrs)									
CO1,CO 6	Describe Gluteal region -Bones (Ilium,	Cognitive/ Comprehensi on	MK	Knows how	Departmental Seminar & Lecture	Written &viva	F&S	I	

	Ischium and Pubis) -Muscles (origin, insertion, nerve supply and actions) -Nerves -Arteries -Applied aspect								
CO1,CO 5	Describe Joints of Lower limb and associated applied aspect -Hip -Knee -Proximal and tibiofibular joint -Ankle -Tarsometatarsal -Metatarsophalangeal -Proximal-interphalangeal -Distal-interphalangeal -Subtalar	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	
CO1,CO 5	Describe Anterior fascial (extensor) compartment of thigh -Muscles (origin, insertion, nerve	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F&S	I	

	supply and actions) of Anterior fascial compartment								
CO1,CO 5	Describe Medial fascial (adductor) compartment of thigh: Muscles (origin, insertion, nerve supply and actions)	Cognitive/ Comprehension	DK	Knows	Lecture	Written &viva	F&S	I	
CO1,CO 5	Describe Posterior fascial (hamstring/ flexor) compartment of thigh: -Muscles (origin, insertion, nerve supply and actions):	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	I	
CO1,CO 5	Describe Bones of the leg -Femur -Tibia -Fibula	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	I	
CO1,CO 5	Describe bones of the foot -Tarsals -Meta-tarsals -Phalanges	Cognitive/ Recall	MK	Knows	Lecture	Written &viva	F&S	I	

CO1, CO2	Explainpopliteal fossa	Cognitive/ Comprehension	MK	Knows how	Lecture	Written &viva	F&S	I	
CO1, CO2	Describe fascial compartments of the leg -Anterior (extensor)&muscles -Lateral fascial (peroneal) compartment of leg&muscles -Posterior fascial (flexor) compartment of leg&muscles	Cognitive/ Comprehension	DK	Knows how	Lecture	Written &viva	F&S	I	
CO1	Describe Ankle region -Anterior aspect of ankle -Posterior aspect of ankle Sole of the foot: Muscles of the sole (origin, insertion, nerve supply and actions): Dorsum of the foot	Cognitive/ Recall	MK	Knows how/ Knows	Small group discussion and lecture	Written &viva	F&S	I	

CO1	Describe sole and dorsum of the foot: -Muscles of the sole (origin, insertion, nerve supply and actions):	Cognitive/ Recall	MK	Knows	Small group discussion and lecture	Written &viva	F&S	I	
CO1	Explain Arches of the foot:	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	I	
CO1	Explain Femoral &Adductor canal	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	I	
CO1	Explain Femoral Triangle	Cognitive/ Comprehension	MK	Knows	Guest Lecture	Written &viva	F&S	I	
CO1,CO 2	Explain Lumbar Plexus and Major nerves of Lower limb	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	I	
CO1,CO 2	Explain Sacral Plexus	Cognitive/ Comprehension	MK	Knows	Lecture	Written &viva	F&S	I	
CO1,CO 2	Demonstrate movements of foot	Psychomotor	DK	Knows	Demonstration	Written &viva	F&S	I	

Table 4: Learning objectives of Tashreehul Badan UNIUG-TB (Practical)

A4 Course outcome	B4 Learning Objective (At the end of the Practical/ Clinic, the Students should be able to)	C4 Domain/Sub	D4 Must to know/desirable to know/Nice to know	E4 Level Does/ shows/ Knows how/ Knows	F4 T-L method	G4 Assessment	H4 Formative /summative	I4 Term	J4 Integration
Practical 1 -Anatomy Law, Prosections and Dissections (Non Lecture - **60** hours)									
CO1	Describe Anatomy Law, Preservation of Cadaver, Body parts and Specimen.	Cognitive/Recall	MK	Knows how	Tutorial+ Demonstration+ Video clips	Written & Viva-Voce	F & S	I	
CO1 CO2 CO3	Describe Line of dissection Dissection technique	Cognitive/Recall	MK	Knows how	Tutorial+ Demonstration+ Video clips	Written & Viva-Voce	F & S	I	
CO1 CO2 CO3	Identify different layers of body	Psychomotor	MK	Knows how	Tutorial+ Demonstration+ Video clips	Written & Viva-Voce	F & S	III	

CO1 CO2 CO3	Perform Dissections of the parts of the body (Cadaver, Audio -Visual aids or other techniques available e.g., CD's, Software or other advanced technology	Psychomotor	MK	Knows how	Tutorial+ Demonstration+ Video clips	Written & Viva-Voce	F & S	I,II, III	
CO1 CO2 CO3	Observe Prosection of the parts of the body	Psychomotor	MK	Knows how	Tutorial+ Demonstration+ Video clips	Written & Viva-Voce	F & S	I,II, III	
Practical II - Osteology and Arthrology (Non Lecture- **100** hours)									
CO1 CO5 CO3 CO5 CO6 CO7	Describe Bones and Joints of Neurocranium	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	I	
		Cognitive/	MK	Knows	Tutorial+	Spotting &	F & S	I	

CO1 CO5 CO3 CO5 CO6 CO7	Describe Bones and Joints of Viscerocranium	Comprehension		how	Demonstration	Viva-Voce			
CO1 CO5 CO3 CO5 CO6 CO7	Enumerate Bones and Joints of Thoracic	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	II	
CO1 CO5 CO3 CO5 CO6 CO7	Describe Bones and Joints of Upper limb	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	III	
CO1 CO5 CO3 CO5	Enlist Bones and Joints of Pelvis	Cognitive/Recall	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	III	

CO6 CO7									
CO1 CO5 CO3 CO5 CO6 CO7	Describe Bones and Joints of Lower limb	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	I	
CO1 CO5 CO3 CO5 CO6 CO7	Describe Associated Radiological Anatomy of all regions	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	III	
CO1 CO5 CO3 CO5 CO6 CO7	Explain Vertebral column and associated Joints (General characteristics of Vertebral column and all vertebra individually)	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	III	

Practical III - Practical study of viscera (Non Lecture- **100** hours)									
CO1 CO2	Describe Brain & Spinal cord with the help of models, charts and specimens.	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	I	
CO1 CO2	Describe Viscera and glands of neck with the help of models, charts and specimens.	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	II	
CO1 CO2	Describe Lungs, Heart and all viscera of thorax with the help of models, charts and specimens.	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	II	
CO1 CO2	Describe Liver, spleen, stomach, kidney and all other Abdominal viscera with the help of models, charts and	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	II	

	specimens.								
CO1 CO2	Describe all Pelvic Viscera with the help of models, charts and specimens. Fossae and structures of Upper and lower Limb Cubital Fossa Popliteal fossa	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	III	
CO1 CO2	Describe Cubital Fossa and structures of Upper limb with the help of models, charts and specimens.	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	III	
CO1 CO2	Describe Popliteal fossa and structures of Lower limb with the help of models, charts	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Spotting & Viva-Voce	F & S	I	

	and specimens.								
Practical IV - Study of Anatomy on living subject (Patient) (Non Lecture- **20** hours)									
CO1 CO2 CO4 CO5 CO7	Describe and Identify Pulsations	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Viva-Voce	S	III	
CO1 CO2 CO4 CO5 CO7	Describe Counting of Ribs	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Viva-Voce	S	III	
CO1 CO2 CO4 CO5 CO7	Describe Heart sounds	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Viva-Voce	S	III	
CO1 CO2 CO4 CO5 CO7	Identify of different bony landmarks	Psychomotor	MK	Knows how	Tutorial+ Demonstration	Viva-Voce	S	III	
CO1 CO2 CO4 CO5 CO7	Explain Deep tendon reflexes -Biceps -Brachioradialis -Triceps -Patellar -Ankle	Cognitive/ Comprehension	MK	Knows how	Tutorial+ Demonstration	Viva-Voce	S	III	

CO1 CO2 CO4 CO5 CO7	Explain Superficial reflexes -Plantar response -Abdominal reflex - Cremastic reflex -Corneal reflex	Psychomotor	MK	Shows	Tutorial+ Demonstration	Viva-Voce	S	III	

Table 5- Non Lecture Activities of Tashreehul Badan UNIUG-TB

	S. No	List non lecture Teaching-Learning methods	No of Activities
A		Activities in classroom	
	1	Demonstration	20
	2	Discussion	20
	3	Departmental Seminar	10
	4	Small group discussion	13
	5	Guest Lecture	2
	6	Concept Maps	15
	7	Educational Videos	20
	8	Project based learning	03
	9	Early clinical Exposure	02
	10	Animation	15
		Subtotal - 120	
B		Activities in practical	280
	Total		**400**

Table 6: Assessment Summary

6 A - Number of papers and Marks Distribution

S.No.	Subject	Papers	Theory	Practical or Clinical Assessment					Grand Total
				Practical or Clinical	Viva	Electives	IA	Total	
1	Tashreehul Badan (Human Anatomy) Paper – I Paper - II	2	200	100	20	10	20	150	350

6. B - Scheme of Assessment (formative and Summative)

SR.NO.	PROFESSIONAL COURSE	DURATION OF PROFESSIONAL COURSE		
		First Term (1-6 Months)	Second Term (7-12 Months)	Third Term (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 (20 Marks)

TERM	PERIODICAL ASSESSMENT				TERM TEST	TERM ASSESSMENT	
	A	B	C	D	E	F	G
	1 (20)	2 (20)	3 (20)	Average (A+B+C/3) 20	Term Test (MCQ+SAQ+LAQ And Practical (Converted to 20)	Sub Total	Term Assessment
FIRST						D+E	D+E /2
SECOND						D+E	D+E /2
THIRD					NIL	D	D
Final IA	Average of Three Term Assessment Marks as Shown in 'G' Column						

6 D - Evaluation Methods for Periodical Assessment

S. No.	Evaluation Methods
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.

6 E - Question Paper Pattern

I PROFESSIONAL BUMS EXAMINATIONS

UNIUG-TB

PAPER-I

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

		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

PAPER-II

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

		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(1) - Distribution of Theory examination Paper-I

	A List of Topics	B Term	C Marks	D Type of Questions "Yes" can be asked. "No" should not be asked.		
				MCQ (1 Mark)	SAQ (5 Marks)	LAQ (10 Marks)
1	(Tashreeh ul Badan ka تشریح البدن کا تعارف ta'aruf) **Introduction of Human Anatomy (General Anatomy)**	I	10	Yes	Yes	No
	(j) ***Nizame Jismani ka mukhtasar ta' aruf*** نظام جسمانی کا مختصر تعارف A brief description of systems of the Body)					
	(k) ***Tashreehi waz'a wa Muta'alliqa istilahat***					

	تشریحی وضع ومتعلقہ اصطلاحات (Anatomical position and related terminologies)					
	(l) *Jild aur uske zawaid* ***جلد اور اسکے زوائد*** (Skin and its appendages)					
	(m) *Lafaife satahiya wa ghaairah* **لفائف سطحیہ و غائرہ** (Superficial and deep Fasciae)					
	(n) *Autar, Rabatat aur Akyase zulaliya* ***اوتار رباطات اور اکیاس زلالیہ*** (Tendon, Ligaments and Bursae)					
	(o) *Izaam: Aqsaam, af'aal wa ta'azzum* ***عظام،اقسام، افعال وتعظم*** Bones: (Types, functions and ossification)					
	(p) *Azlaat: Aqsaam wa af'aal* ***عضلات، اقسام و افعال*** Muscles(Types and functions)					
	(q) *Mafasil, Aqsaam wa harakaat* ***مفاصل، اقسام و حرکات*** (Joints, Types and movements)					
	(r) *Ilmul janeen wa nasliyat* ***علم الجنین و نسلیات*** (General Embryology and Genetics)					
2	***Raas* راس** **(Head)**	I	20	Yes	Yes	Yes
	(i) *Jumjumah aur uske manaazir ka aam bayaan* ***جمجمہ اور اسکےمناظر کا بیان*** (General description and views of Skull).					
	(j) *Mufsal Sudughi fakki* ***مفصل صدغی فکی*** (Temporomandibular joint)					
	(k) *Jaufe Fam, Lisaan, Asnaan wa Halaq* ***جوف فم، لسان، اسنان و حلق*** (Oral Cavity, Gums, Teeth and Pharynx)					
	(l) *Anaf, Jaufe Anf wa Khalaye Hawaiyah* ***انف،جوف انف وخلایا ہوائیہ*** (Nose, nasal cavity and Paranasal sinuses)					
	(m) *Uzn* اذن (Ear)					
	(n) *Mashmoolate Mahjar* ***مشمولات محجر*** (Contents of Orbit): ***Aj'faan* اجفان** (Eyelids)					

	(o) ***Aalate dam'a*** ***آلات دمع*** (Lacrimal apparatus) and ***Muqlatul Ain*** ***مقلۃ العین*** (Eye ball)					
	(p) ***Ghudade Lu'abiya*** ***غدد لعابیہ*** (Salivary glands)					
3	***Unq*** ***عنق*** **(Neck)**	II	10	Yes	Yes	No
	(i) ***Musallasate Unq ka mukhtasar bayaan*** ***مثلثات عنق کا مختصر بیان*** (Brief description of Triangles of the Neck)					
	(j) ***Azlaate Unq*** ***عضلات عنق*** (Muscles of the Neck)					
	(k) ***Urooq wa a'asab*** ***عروق و اعصاب*** (Vessels and nerves)					
	(l) ***Hanjarah wa Qasbatu r'riyah*** ***حنجرہ و قصبۃ الریہ*** (Larynx and Trachea)					
	(m) ***Mari*** ***مری*** (Oesophagus)					
	(n) ***Raas wa Unq ke Ghudade Lymphawiyah*** ***راس و عنق کے غدد لمفاویہ*** (Lymph nodes of Head and neck)					
	(o) ***Fuqrate Unq*** ***فقرات عنق*** (Cervical Vertebrae)					
	(p) ***Ghudade Darqiyah wa Jaar darqiyah*** ***غدد درقیہ وجار درقیہ*** (Thyroid and parathyroid glands)					
4	***NizameA'asab*** ***نظام اعصاب*** **(Nervous system)**	II	10	Yes	Yes	No
	(c) ***Aghshiya-e-Dimagh, Dimagh aur Nukha'a ka mukhtasar bayaan*** ***اغشیہ دماغ، دماغ اور نخاع کا مختصر بیان*** (A brief description of Meanings, Brain and spinal cord)					
	(d) ***A'asabe Nukha wa Dimaghi*** ***اعصاب نخاع و دماغی*** (Cranial and Spinal nerves)					
5	***Sadr*** ***صدر*** **(Thorax)**	II	30	Yes	Yes	Yes
	(j) ***Jaufe Sadr***					

	جوف صدر (Thoracic Cavity)					
	(k) ***Azla'a, Azmul Qas wa fuqraate sadr*** اضلاع عظم القص و فقرات صدر (Ribs, Sternum and Thoracic Vertebrae)					
	(l) ***Azlaate sadr*** ***عضلات صدر*** (Muscles of the Thorax)					
	(m) ***Ghishaur riyah wa riyatain*** غشاءالریہ و ریتین (Pleura and Lungs)					
	(n) ***Hijabe munassifussadr wa mashmoolat*** **حجاب منصف الصدر و مشمولات** (Mediastinum & its contents)					
	(o) ***Urooq wa A'asab aur majrae sadr*** ***عروق و اعصاب اورمجری صدر*** (Vessels, Nerves and Thoracic duct)					
	(p) ***Ghilaful qalb wa Qalb*** ***غلاف القلب و قلب*** (Pericardium and Heart)					
	(q) ***Hijabe Hajiz*** ***حجاب حاجز*** (Diaphragm)					
	(r) ***Saddyain*** ثد یئین (Mammary Gland)					
6	***Tarfe A'ala*** ***طرف اعلیٰ*** **(Upper Limb)**	III	20	Yes	Yes	Yes
	(f) ***Izam*** ***عظام*** (Bones)					
	(g) ***Azlaat*** ***عضلات*** (Muscles)					
	(h) ***Mafasil*** ***مفاصل*** (Joints)					
	(i) ***Ibt wa hufrae mirfaqiyah*** ابط و حفرہ مرفقیہ (Axilla and Cubital fossa)					
	(j) ***Urooq wa A'asab*** ***عروق و اعصاب*** (Vessels and nerves)					

6 F(2) - Distribution of Theory examination Paper-II

	A List of Topics	B Term	C Marks	D Type of Questions "Yes" can be asked. "No" should not be asked.		
				MCQ (1 Mark)	SAQ (5 Marks)	LAQ (10 Marks)
1	(Batan) بطن (Abdomen)	II	40	Yes	Yes	Yes
	a. اقسام بطن(Aqsam-e-Baṭan) (Abdominal regions)					
	b. مقدم دیوار بطن (Muqaddam Deewar-e-Baṭan) (Anterior Abdominal wall)					
	c. عضلہ مورب ظاہرہ اور مورب غائرہ(External Oblique and Internal Oblique muscle)					
	d. عضلہ مستعرضہ بطنیہ و مستقیم بطنیہ(Transversus Abdominis and Rectus Abdominis (muscle					
	e. لفافہ مستقیمہ(Rectus sheath)					
	f. عضلہ معلقۃ الخصیہ و مخروطیہ (Cremaster and Pyramidalis muscle					
	g. دیوار بطن کے اعصاب و عروق (Arteries and nerves of the anterior abdominal wall)					
	h. لفافہ مستعرضہ(Fascia Transversalis)					
	i. خطہ اربیہ و قنات اربیہ (Inguinal region (groin) and Inguinal canal					
	j. باریطون، ثرب، ماساریقا(Peritoneum, Omentum (and Mesentry					
	k. رباطات باریطون (Ligaments of peritoneum)					
	l. مری کا بطنی حصہ اور اطلاقی تشریح Abdominal part of the Oesophagus and its applied anatomy					
	m. معدہ اور اطلاقی تشریح Stomach and its applied anatomy					
	n. اثنا عشری اور اطلاقی تشریح (Duodenum and its					

	applied anatomy)					
	o. معاءصائم اور اطلاقی تشریح (Jejunum along with its applied anatomy					
	p. معاءلفائفی اور اطلاقی تشریح(Ileum along with its applied anatomy					
	q. کبداور اطلاقی تشریح (Liver and its applied anatomy)					
	r. وریدباب الکبداور اطلاقی تشریح (Portal vein and its applied anatomy)					
	s. آلات صفراویہ کبدی خارجی Extrahepatic Biliary Apparatus along with its applied anatomy					
	t. بانقراس اور اطلاقی تشریح Pancreas and its applied anatomy					
	u. طحال اور اطلاقی تشریح Spleen and its applied anatomy					
	v. اعور اور اطلاقی تشریح Caecum and its applied anatomy					
	w. زائدہ دودیہ اور اطلاقی تشریح Appendix and its applied anatomy					
	x. قولون اور اطلاقی تشریح Colon and its applied anatomy					
	y. وریدماساریقاعلیٰ واسفل Superior and Inferior Mesenteric Vessels					
	z. کلیتین اور اطلاقی تشریح Kidneys and its applied anatomy					
	aa. اعضاءزنانہ ومردانہ خارجی اور اطلاقی تشریح External male and female genital organs and its applied anatomy					
	bb. غدہ فوق الکلیہ اور اطلاقی تشریح Suprarenal Glands & its applied anatomy					
	cc. دیوار بطن مؤخر(Posterior Abdominal Wall)					
	dd. اوردہ بطنی(Abdominal Aorta)					

	ee. اجوف اسفل(Inferior Vena Cava)					
2	**(*A'ana wa ejan*) عانہ و عجان** **(Pelvis and perineum)**	III	30	Yes	Yes	Yes
	(e) *Hauz e A'anaa aur Ejan* **حوض عانہ اور عجان** (Pelvis, perineum and Ischiorectal fossa)					
	(f) *Azmul ajuz wa- us'us* **عظم العجز و عصعص** (Sacrum and coccyx)					
	(g) *Azlaate a'ana* **عضلات عانہ** (Muscles and joints of pelvis)					
	(h) *Ah'shae Aana* احشاء عانہ (Pelvic viscera and External Male/Female sex organs)					
3	***Tarfe Asfal* طرف اسفل** **(Lower Limb)**	I	30	Yes	Yes	Yes
	(i) *Izaam* **عظام** (Bones)					
	(j) *Azlaat* **عضلات** (Muscles)					
	(k) *Mafasil* **مفاصل** (Joints)					
	(l) *Urooq wa A'asab* **عروق و اعصاب** (Vessels and nerves)					
	(m) *Hufrajat* **حفراجات** (Fossae)					
	(n) *Musallase Fakhzi* مثلث فخذی (Femoral triangle)					
	(o) *Qanate Muqarribah* **قنات مقربہ** (Adductor canal)					
	(p) *Hufrae mabiziyah* حفرہ مابضیہ (Popliteal fossa)					

6 G(1) - Question Paper blueprint Paper-I

A Question Sr. No	B Type of Question	C Question Paper Format
Q1	**Multiple choice Questions (MCQ)** 20 Questions 1 mark each All compulsory Must know 15 MCQ Desirable to know 3 MCQ Nice to know 2 MCQ	1. 1(a) / 1(i) / 3(a) 2. 1(b) / 2(b) 3. 1(c) / 2(c) 4. 1(d)/ 2(d) 5. 1(e) / 2(e) 6. 1(f) / 2(f) 7. 1(g) / 2(g) 8. 1(h)/ 2(h) 9. 2(a) / 5(a) 10. 5(b) / 5(c) 11. 5(d) / 5(g) 12. 6(a)/6(b) 13. 6(c) /6(e) 14. 4(a) /3(h) 15. 4(b) /3(g) 16. 5(e) /3(f) 17. 5(f) /3(e) 18. 5(h) /3(d) 19. 5(i)/3(c) 20. 6(d) /3(b)
Q2	**Short answer Questions (SAQ)** Eight Questions 5 Marks Each All compulsory Must know 7 SAQ Desirable to know 1 SAQ No Questions on Nice to know	1. 1(a) / 1(i) / 3(a) / 4(a) 2. 1(b) / 2(b) / 3(b) / 4(b) 3. 1(c) / 2(c) / 3(c) / 5(e) 4. 1(d)/ 2(d) / 3(d) / 5(f) 5. 1(e) / 2(e) / 3(e) / 5(h) 6. 1(f) / 2(f) / 3(f) / 5(i) 7. 1(g) / 2(g) / 3(g) / 6(d) 8. 1(h)/ 2(h) / 3(h) / 6(e)

Q3	**Long answer Questions (LAQ)** Four Questions 10 marks each All compulsory All questions on must know No Questions on Nice to know and Desirable to know	1. 2(a) / 5(c) / 6(c) 2. 5(a) / 5(d) 3. 5(b) / 5(g) 4. 6(a)/ 6(b)

6 G(2) - Question Paper blueprint Paper-II

A Question Sr. No	B Type of Question	C Question Paper Format
Q1	**Multiple choice Questions (MCQ)** 20 Questions 1 mark each All compulsory Must know 15 MCQ Desirable to know 3 MCQ Nice to know 2 MCQ	1. 1(ff) / 1(vv) / 1(ddd) 2. 2(a) / 1(xx) / 1(fff) 3. 2(b) / 1(yy) / 1(ggg) 4. 2(c)/ 1(zz) / 1(hhh) 5. 2(d) / 1(eee) 6. 3(a) / 1(hh) 7. 3(b) / 1(ii) 8. 3(c)/ 1(kk) 9. 3(d) / 1(ll) 10. 3(e) / 1(mm) 11. 3(f) / 1(pp) 12. 3(g) / 1(jjj) 13. 3(h) / 1(iii) 14. 1(gg) / 1(qq) 15. 1(jj) / 1(rr) 16. 1(nn)/ 1(tt) 17. 1(oo) / 1(ww) 18. 1(rr) / 1(aaa) 19. 1(ss)/ 1(bbb) 20. 1(uu)/ 1(ccc)
Q2	**Short answer Questions (SAQ)**	1. 1(hh) / 1(ii) / 1(ggg)

	Eight Questions 5 Marks Each All compulsory Must know 7 SAQ Desirable to know 1 SAQ No Questions on Nice to know	2. 2(c) / 1(kk) / 1(hhh) 3. 3(b) / 1(ll) / 1(ww) 4. 3(d)/ 1(mm) / 1(aaa) 5. 3(e) / 1(pp) / 1(bbb) / 1(iii) 6. 3(f) / 1(qq) / 1(ccc) / 1(jjj) 7. 3(g) / 1(rr) / 1(ddd) 8. 3(h)/ 1(tt) / 1(fff)
Q3	**Long answer Questions (LAQ)** Four Questions 10 marks each All compulsory All questions on must know No Questions on Nice to know and Desirable to know	1. 1(ff) / 1(jj) / 1(oo) / 1(uu)/1(zz) 2. 2(a) / 2(b) / 2(d) / 1(vv)/1(eee) 3. 3(a) / 3(c) / 1(rr) / 1(xx) 4. 1(gg)/ 1(nn) / 1(ss) / 1(yy)

6 H - Distribution of Practical Examination

SN	Heads	Marks
1	Practical (Total Marks 100)	
	Spotting: (1) Bone	40
	(2) Specimen	20
	(3) Model	20
	(4) X-Ray	10
	Record Book	10
2	Viva Voce	20
3	Internal	20
4	Electives	10
	Total Marks	**150**

Table 7. Reference Books/Resources:

S.No.	Name of Book	Name of Author
1	تشریح عظام (Tashreeh e izam) Osteology	عبیداللہ Ubaidullah
2	تشریح وضعی و اطلاقی راس و عنق Anatomy Regional and Applied Head and Neck	عبیداللہ Ubaidullah
3	تشریح وضعی و اطلاقی طرف اعلی Anatomy Regional and Applied Upper Limb	عبیداللہ Ubaidullah
4	تشریح وضعی و اطلاقی طرف اسفل Anatomy Regional and Applied Lower Limb	عبیداللہ اور محمد آصف Ubaidullah & Mohd Asif
5	تشریح وضعی و اطلاقی صدر Anatomy Regional and Applied Thorax	عبیداللہ اور مغیث احمد انصاری Ubaidullah & Moghees A. Ansari
6	General Anatomy (First Edition)	Abu Kashif Anwar ابو کاشف انور
7	القانون فی الطب Al-Qanoon fit Tib (Jild Awwal)	ابن سینا Ibn Sina
8	اشرا Ishra	سید کمال الدین حسین ہمدانی Kamaluddin Husain Hamdani
9	تشریح صغیر TashreehSagheer	محمد کبیر الدین Mohd Kabeeruddin
10	تشریح کبیر Tashreeh kabeer	محمد کبیر الدین Mohd Kabeeruddin
11	تشریح تصاویر Tashreeh Tasaweer	محمد کبیر الدین Mohd Kabeeruddin

12	تشریح انسانی Tashreeh e Insani	بیلی رام Beliram LMS
13	تشریح ہیکل Tashreeh e haikal	سید کمال الدین حسین ہمدانی Kamaluddin Husain Hamdani
14	تشریح الاحشاء Tashreehul Ahsha	سید کمال الدین حسین ہمدانی Kamaluddin Husain Hamdani
15	تشریح احشاء Tashreeh Ahsha	محمد احمد لاری M A Lari
16	تشریح المفاصل Tashreehul Mafasil	محمد احمد لاری M A Lari
17	تشریح سطحی Tashreeh Sathi	انیس احمد انصاری Anis Ahmad Ansari
18	تشریح البدن Tashreehul Badan	ہارون منصوری Haroon Mansoori
19	تشریح العظام Tashreehul Izam	شبیر احمد Shabbir Ahmad
20	تشریح العضلات Tashreehul Azalat	شبیر احمد Shabbir Ahmad
21	Human Anatomy – Regional and Applied Part I, II, III	B D Chourasia
22	General Anatomy	B D Chourasia
23	Gray's Anatomy 42th edition	Henry Gray
24	Clinical oriented Anatomy 4th edition	K.L. Koore
25	Fundamentals of Human Anatomy	N. Chakraborty and D. Chakraborty
26	Surface and Radiological Anatomy	A. Halim
27	Tartora's Principles of Anatomy & Physiology	Gerard J Tortora
28	Anatomy 8th edition	Samar Mitra
29	Snell's clinical Anatomy	Dr. Lawrence E. Weneski
30	Fundamentals of Nervous System	A K Anwar