SECTION – I
(Course Content)

LOWER LIMB

Schedule-1.
ANTERIOR AND MEDIAL ASPECTS OF THE THIGH.

Lecture: 02 hrs
Dissection/ Prosection: 10 hrs
Tutorials: 01 hr

LECTURES:

- Femoral triangle- femoral artery, femoral sheath, femoral canal.
- Femoral nerve and Obturator nerve.

DISSECTION/ PROSECTION:

Identification of relevant skeletal features:-

hip bone - pubic tubercle; anterior superior iliac spine; iliac crest; tubercle of iliac crest.
femur - head; neck; greater and leser trochanters; linea aspera; condyles; epicondyles; adductor tubercle; supracondylar ridge; patella.
tibia - condyles; tibial tuberosity.

Subcutaneous structures:- great saphenous vein; its tributaries with accompanying branches; lateral, medial and intermediate cutaneous nerves of the thigh; femoral branch of genitofemoral nerve; saphenous nerve; superficial inguinal lymph nodes.
Deep fascia:- fascia lata; iliotibial tract; intermuscular septa; compartments of the thigh.
Muscles:- sartorius, iliopsoas; quadriceps femoris; pectineus; addcutors.
Boundaries of femoral triangle and adductor (sub-sartorial) canal.
Nerves:- femoral and obturator nerves and their branches.
Arteries:- femoral artery and its branches.
Veins:- femoral vein and its tributaries.
Deep lymph nodes:- deep inguinal lymph nodes.
Surface anatomy:- femoral artery
Applied anatomy:- injury to femoral artery; disuse atrophy of extensors; femoral hernia.

TUTORIAL TOPICS FOR THE WEEK

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

Schedule-2.
GLUTEAL REGION AND POSTERIOR ASPECT OF THE THIGH.

Lecture: 02 hrs
Dissection/ Prosection: 10 hrs
Tutorials: 01 hr

LECTURES:

- Gluteal region
- Sciatic nerve

DISSECTION/ PROSECTION:

Identification of relevant skeletal features:-

hip bone- gluteal surface; sciatic notches and foramina; iliac crest, tubercle and spines; ischial spine and tuberosity.
sacrum and coccyx

femur - greater trochanter; trochnateric fossa; trochanteric crest; quadrate tubercle; gluteal tuberosity; linea aspera.
tibia - condyles and shaft.
fibula - head.

Subcutaneous structures:- cutaneous nerves.
Muscles:- gluteus maximus, medius, minimus; tensor fascia lata; piriformis; obturator internus and gemelli; quadratus femoris; hamstring muscles including the ischial part of adductor magnus.
Nerves:- sciatic nerve and its divisions; inferior gluteal nerve; nerve to quadratus femoris; nerve to obturator internus; pudental nerve; and superior gluteal nerve.
Arteries:- superior and inferior gluteal arteries; arterial anastomoses.
Surface anatomy:-posterior superior iliac spine; greater trochanter; gluteal fold; sciatic nerve.
Applied anatomy:- site of intramuscular injections.

TUTORIAL TOPICS FOR THE WEEK
- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

Schedule-3
HIP JOINT, POPLITEAL FOSSA AND BACK OF THE LEG.

Lecture: 01 hrs
Dissection/ Prosection: 10 hrs
Tutorials: 01 hr

Hip Joint
LECTURES:
- Hip joint.

DISSECTION/ PROSECTION:
Identification of relevant skeletal features:-
Acetabulum -developmental components; head of femur.
Muscles in relation to the capsule of the joint:- iliopsoas; pectineus; obturator externus; short lateral rotators; gluteus minimus; reflected head of rectus femoris.
Capsule:- attachments.
Ligaments:-iliofemoral, pubofemoral and ischiofemoral ligaments; retinacular fibres.
Synovial membrane:- reflection; retinacular vessels.
Articular surfaces:- articular cartilage; labrum acetabulare; transverse ligament.
Movements:- flexion, extension; adduction, abduction; medial and lateral rotataion; circumduction.
Nerve supply:- sciatic nerve; application of Hilton's law.
Blood supply:- to the joint and head of femur.
Applied anatomy:- dislocation of hip; fracture of femoral neck.

Popliteal fossa and back of the leg:
Identification of relevant skeletal features:-
femur - popliteal surface; condyles.
tibia - condyles; upper end of medial surface; posterior surface; soleal line; medial malleolus.
fibula - posteriorsurface; lateral maleolus.
calcaneus - attachment of flexor retinaculum.
Subcutaneous structures:- posterior femoral cutaneous nerve;sural nerve; peroneal communicating nerve; saphenous nerve; medial calcaneal branches of tibial nerve; small saphenous vein.
Deep fascia:- osteofascial compartments; transverse septum; flexor retinaculum.
Boundaries of popliteal fossa:- semitendinosus; semimembranosus; biceps femoris; gastrocnemius; plantaris.
Muscles:- soleus; popliteus; flexor digitorum longus; flexor hallucis longus; tibialis posterior.
Nerves:- sciatic nerve; tibial nerve; common peroneal nerve.
Arteries:- popliteal; posterior tibial; anterior tibial; peroneal.
Veins:- popliteal vein and its formation.
Lymph nodes:- popliteal.
Surface anatomy:- popliteal artery; posterior tibial artery.
Applied anatomy:- recording of blood pressure in the lower limb.

TUTORIAL TOPICS FOR THE WEEK
- Relevant osteology.

- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

Schedule-4.

ANTERIOR AND LATERAL ASPECTS OF THE LEG, DORSUM OF THE FOOT AND THE KNEE JOINT.

Lecture: 02 hrs
Dissection/ Prosection: 10 hrs
Tutorials: 01 hr

LECTURES :

- **Knee joint.**
- **Common peroneal nerve.**

DISSECTION/ PROSECTION:

Anterior and lateral aspects of the leg and dorsum of the foot.

Identification of relevant skeletal features:-

tibia - borders and surfaces.
fibula - borders and surfaces.
bones of foot - tarsus; metatarsus and phalanges.

Subcutaneous structures:- superficial peroneal nerve; lateral cutaneous nerve of calf; saphenous nerve; sural nerve; deep peroneal nerve; great saphenous vein; small saphenous vein.
Deep fascia:- osteofascial compartments; extensor retinacula; peroneal retinacula.
Muscles:- peroneus longus; peroneus brevis; tibialis anterior; extensor hallucis longus; extensor digitorum longus; peroneus tertius; extensor digitorum brevis.
Nerves:-superficial peroneal nerve; deep peroneal nerve.
Arteries:- anterior tibial artery; dorsalis pedis artery.
Applied anatomy:-dorsalis pedis arterial pulse; intravenous infusion into great saphenous vein.

Knee joint

Identification of relevant skeletal features:-

femur - articular areas for tibia and patella; intercondylar notch
patella - subdivision of the articular surfaces.
tibia - condylar articular area; intercondylar eminence and tubercles; tibial tuberosity.

Muscles in relation to the capsule of the joint:- quadriceps femoris; sartorius; gracilis; semitendinosus; semimembranosus; adductor magnus; gastrocnemius; popliteus; peroneus longus.
Capsule;- attachments.
Ligaments:- medial and lateral; oblique popliteal.
Intra-articular structures:- cruciate ligaments; mensci; popliteus tendon.
Synovial membrane:- reflection; infrapatellar and alar folds; suprapatellar bursa.
Articular surfaces:- articluar cartilage.
Movements:- flexion, extension; rotation; 'locking' and unlocking.
Blood supply:- genicular arteries.
Nerve supply:- genicular nerves.
Applied anatomy:- internal derangements.

TUTORIAL TOPICS FOR THE WEEK

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

Schedule-5.

TIBIOFIBULAR JOINTS, ANKLE JOINT AND JOINTS OF THE FOOT.

Lecture: 02 hrs
Dissection/ Prosection: 10 hrs
Tutorials: 01 hr

LECTURES:

- Ankle joint
- Venous drainage and lymphatic drainage of the lower limb.

DISSECTION / PROSECTION:

Ankle joint

Identification of relevant skeletal features:- lower end of tibia and fibula; talus.
Muscles in relation to the capsule of the joint:- tibialis anterior; extensor hallucis longus; extensor digitorum longus; peroneus tertius; peroneus brevis; peroneus longus; tibialis posterior; flexor digitorum longus; flexor hallucis longus; tendo calcaneus.
Capsule:- attachments.
Ligaments:- deltoid ligament; lateral ligament.
Synovial membrane:- reflection.
Articular surfaces:- tibiofibular mortise; posterior tibiofibular ligaments; trochlear and malleolar surfaces of talus.
Movements:- dorsiflexion, plantar flexion; side to side movement in plantar flexion.
Applied anatomy:- sprains; avulsion of medial malleolus; Pott's fracture.

Subtalar, Midtarsal and Other Joints of the foot.

Identification of relevant skeletal features:- bones of the foot; arches of the foot.
Capsule:- attachment.
Ligaments:- spring ligament; short and long plantar ligaments; deep transverse metatarsal ligaments.
Synovial membrane:- reflection.
Articular surfaces:- between talus and calcaneum; talus and navicular; calcaneum and cuboid.
Movements:- inversion and eversion at subtalar and midtarsal joints; movements at other joints.
Muscles concerned in movements:- invertors and evertors; flexors and extensors.
Applied anatomy:- club foot (C.T.E.V).

TUTORIAL TOPICS FOR THE WEEK

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

Schedule-6.
SOLE OF FOOT.

Lecture: 02 hrs
Dissection/ Prosection: 10 hrs
Tutorials: 01 hr

LECTURES:

- Arches of the foot.
- Inversion and eversion.

DISSCETION/ PROSECTION:

Identification of relevant skeletal features:-
calcaneus - medial and lateral processes of tuber calcaneus; sustentaculum tali.
talus
navicular - tuberosity
cuboid - groove for peroneus longus tendon
fifth metatarsal bone - styloid process (tuberosity).
Subcutaneous structures:- medial calcaneal nerves and vessels; digital nerves and vessels.
Deep fascia:- plantar paoneurosis; intermuscular septa; muscular compartments.
Muscles:- first layer- abductor hallucis, flexor digitorum brevis, abductor digiti minimi;
second layer - flexor hallucis longus and flxor digitorum longus tendons; lumbricals and flexor digitorum accessorius.
third layer - flexor hallucis brevis; adductor hallucis; flexor digiti minimi brevis.
fourth layer - tibialis posterior and peroneus longus tendons; interossei.
Ligaments:- long plantar ligament; short plantar ligament; spring ligament.
Nerves:- medial plantar; lateral plantar.
Arteries:- medial plantar artery, lateral plantar artery and plantar arch.

TUTORIAL TOPICS FOR THE WEEK

- Relevant osteology.
- Relevant radiological anatomy.
- Relevant living anatomy.
- Relevant cross-sectional anatomy.

SECTION – II
(Course Content under Level – I, II, III)
LECTURES
OUTLINE OF LECTURES

S.No	TOPIC	MUST KNOW	SHOULD KNOW	COULD KNOW
1.	FEMORAL SHEATH	1. Continuity of layers of anterior abdominal wall with front of thigh. 2. Attachment of deep fascia. 4. Inguinal ligament 5. Formation of femoral sheath 6. Contents of femoral sheath 7. Femoral canal 8. Femoral hernia 9. Saphenous opening	10. Anatomical basis of repair of femoral hernia	11. Abdominal obturator artery in repair of hernia.
2.	FEMORAL TRAIANGLE & ADDUCTOR CANAL	1. Boundaries 2. Contents: Superficial Deep i) Inguinal Lymph nodes ii) Femoral Artery & Vein iii) Great Saphenous Vein iv) Lat. Cutaneous N of thigh iv) Cruciate & Trochanteric anastamosis 6. Add. Canal: Location Boundaries with contents	3. Profunda Femoris 7. Applied anatomy: a. Stab injuries at Adductor Canal	4. Branches of Profunda famoris 7. b. Applied anatomy: Meralgia parasthetica
3.	FEMORAL ARTERY	1. Course & Major branches. 2. Major branches	3. Exit of major branches from floor of femoral triangle 5. Palpation of femoral artery 6. I.V. injection	4. Applied anatomy: Retrograde catheterisation / coronary angiography.
4.	FEMORAL & OBTURATOR NERVES	1. Formation, Root value & motor distribution 5. Saphenous Nerve OBTURATOR NERVE: 1. Formation; Root value 2. Course & Relation 3. Motor distribution	2. Articular brs. 3. Hilton's Law 4. Refered pain 5. Applied Anatomy: a. Refered pain b. Accessory Obturator Nerve 6. Articular branches	5. Applied Anatomy: c. Hilton's Law d. Spastic paraplegia e. Obturator hernia

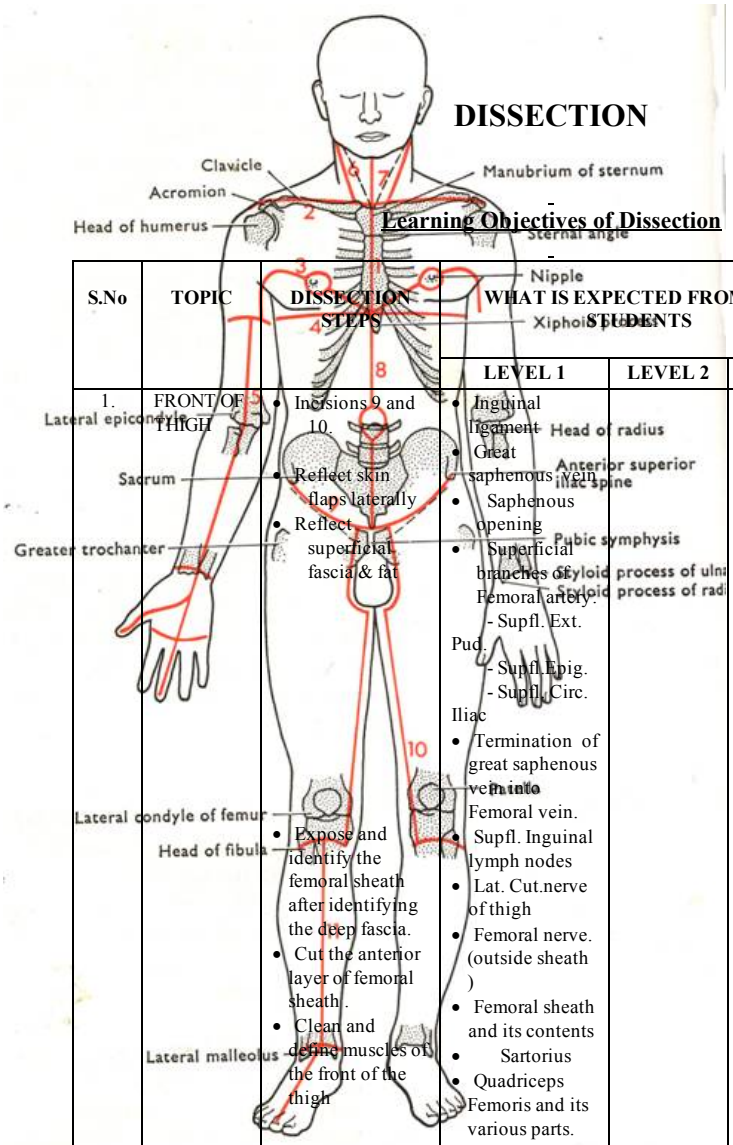
5.	GLUTEAL REGION	1. Structures under Gluteus Max imus 2. Structures in relation to piriformis 3. Structure passing through greater & lesser sciatic foramina 4. Sciatic N: Formation & root value motor distribution 5. Structures forming sciatic bed 6. IM injections 8. Sciatic	7. Direction of muscle retraction 8. Pudendal block 9. Trendlenberg Sign	
6.	POPLITEAL FOSSIA	1. Boundaries, contents & general arrangement of major structures 2. Popliteal artery: Course, relations & branches. 3. Anastomosis around knee joint.	4. Palpation of Common Peroneal Nerve/ Popliteal pulse 5. B.P 6. Foot drop	8. Accessibility and dispensibility of sural groove for biopsies and grafts.
7.	HIP JOINT	1. Classification 2. Capsule & ligaments 3. Synovial membrane 4. Movements & group of muscles 5. Nerve supply (SK) 7. a. Applied: Femoral neck # Dislocations	6. Relations 7. b. Applied anatomy: Anatomical basis of Trendlenberg sign. 7.c. Anatomical basis of Surgical approaches	7(iii) Arthroscopy 7(iv). Prosthesis 7(v). Congenital dislocation of hip
8.	SOLE	1. Plantar aponeurosis 2. Gen. Arrangement of muscles in layers 3. Plantar arterial arch 4. Cutaneous innervation	5. Calcaneal spur	
9.	ANKLE JOINT	1. Classification 2. Capsule & ligaments 3. Synovial membrane 4. Movements & group of muscles 5. Applied: i) Spring Ligament rupture Pott's #		
10.	ARCHES OF FOOT	1. Skeletal frame work of foot 3. Classification & Components 4. Factors for maintenance EV	5. Applied Anatomy: Flat foot Morton's metatarsalgia CTEV Pes cavus Pes planus	
11.	INVERSION & EVESION	1. Definition 2. Joints : Initiation & Completion 3. Sequence of movements 4. Axis 5. Muscles responsible	7. Functional relevance of movements	6. Names of the Midtarsal & subtalar joints
12.	KNEE JOINT	1. Classification 2. Capsules & ligaments 3. Intra capsular extrasynovial		

		5. Mov. & group of muscles 6. Applied: a. Locking & Unlocking b. Mensical tear c. Crucial lig.tear d. Housemaid knee e. Baker's cyst	4. Relations 6. Applied Anatomy: f. Surgical approaches	6. Applied Anatomy: g. Patellar dislocations h. Factors for stability of joint i. Joint replacement
13.	VENOUS DRAINAGE OF LOWER LIMB	1. Great Saphenous Vein: course & tributaries 2. Small saphenous vein : course & tributaries 3. Perforating vein: Positions: & communications 4. Applied i) Varicose vein ii) Venesection iii) Coronary bypass	vi) Trendelenberg test v) Perthe's test	

SECTION – II
(Course Content under Level – I, II, III)

DISSECTION - INCISIONS

DISSECTION



Learning Objectives of Dissection

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
1.	FRONT OF THIGH	• Incisions 9 and 10. • Reflect skin flaps laterally • Reflect superficial fascia & fat • Expose and identify the femoral sheath after identifying the deep fascia. • Cut the anterior layer of femoral sheath. • Clean and define muscles of the front of the thigh	• Inguinal ligament • Great saphenous vein • Saphenous opening • Superficial branches of Femoral artery: - Supfl. Ext. Pud. - Supfl.Epig. - Supfl. Circ. Iliac • Termination of great saphenous vein into Femoral vein. • Supfl. Inguinal lymph nodes • Lat. Cut.nerve of thigh • Femoral nerve. (outside sheath) • Femoral sheath and its contents • Sartorius • Quadriceps Femoris and its various parts. • Tensor fascia Lata • Iliopsoas			• Inguinal ligament • Great saphenous vein • Femoral sheath • Femoral artery • Femoral vein • Femoral nerve	• Inguinal lymph nodes • Muscles of front of thigh • Femoral sheath • Femoral canal and femoral hernia • Actions of muscles of front of thigh
						APPLIED ASPECT	
						• Inguinal lymph nodes • Psoas abscess • Femoral Hernia	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
2.	FEMORAL TRIANGLE & ADDUCTOR CANAL	• Clean the remaining fascia and fat over the upper third of the thigh to define boundaries of the femoral triangle • Clean the contents of the triangle • Clean the muscular floor.	Boundaries: • Base - Ing.Lig. • Lat - Sartorius • Med.- Add. Longus • Apex - Meeting of the mentioned ms. From Lat. To Med. • Fem.N. and its 2 div. • Fem.art.	• Saphenous N. • Branches of Profunda Fem. artery: - Med. Circum. Fem	• Branches from Fem.N. -Lat. Cut. N. of thigh. -Fem. br.of Genito-Fem. N.	• Boundaries of Femoral triangle including floor • Femoral art. & profunda fem. • Fem. Vn. & opening of G. S.Vinto it. • Deep ing. Nodes • Applied imp. Of G.S.V.	• Fem. canal & ring • Fem. Hernia. • Applied anat. Of Fem. art. • Exit of Fem vs. from Fem. Triangle

		•Clean the fat and fascia in middle third of the thigh. •Lift and turn the sartorius laterally. •Expose fascia between Adductor longus & Vastus medius..Cut this fascia longitudinally	and its deep branches: - Profunda Femoris - Deep.ext. Pudendal • Fem. Vein • Deep inguinal nodes From Lat. To Med. • Iliacus . • Psoas Major • Pectineus. • Add. Longus Add. Canal: • Antero-lat : V.M • Post : Add longus Add Magnus. • Roof: Sartorius over the fascia. Contents: Femoral . Vessels;. Saph. N.	- Latl. Circum. Fem • Nerve to Vastus Medius		**APPLIED ASPECT** • Angiography • Venous graft from Great Saphenous vein in bypass surgery • Intravenous injections • Repair: femoral hernia • Popliteal aneurysm • Stab injuries.	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
3.	MEDIAL SIDE (ADDUCTOR COMPARTM-ENT OF THIGH)	•Clean the medial side of the thigh by removing fat and fascia over A.L & Gracilis •Cut A.L. about 2-3 cmd from its origin & turn it downwards •Detach Pectineus from its origin & turn it laterally •Detach A.B. close to its origin & turn it laterally •Remove fascia over A.M. & define its attachments •Remove	• Adductor longus • Gracilis • Pectineus Deep to Adductor .Longus: • Ant. Div. Of obturator N. • Adductor Brevis • Post. Division of Obturator N. • Add. Magnus	• Muscular branches of Obturator Nerve	• Obturator externus • Obturator artery	• Muscles of Adductor Compartment **APPLIED ASPECT** • Spastic paraplegia	• Obturator Nerve and its distribution • Anatomical basis of referred pain

		obturator externus from origin				

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
4.	4.GLUTEAL REGION	• Skin incisions: 5 & 6 after placing cadaver in prone position. • Reflect skin flap laterally. • Remove fat & fascia. • Expose & define attach. of Gluteus Maximus. • Pass a forceps deep to the Gluteus Maximus & cut it from its lower border about 2-3cms medial to its insertion on Femur. Reflect the two parts medially & laterally. • Cut across G.Med. About 5cm. above greater trochanter & reflect it.	• Gluteus Maximus Deep to Gluteus Maximus • Muscles : - G. Med. & Min - Ob. Internus - Gemelli - Quad. Femoris - Piriformis (along upper border) (along lower border) Med. To Lat. Sciatic N. • Ligaments : - Sacrotuberous - Sacrospinous • Gluteus Minimus	- - - - - - - - - - - • Nerve to Quadratus Femoris Superior Gluteal Vessels & Nerves. Inferior Gluteal Vessels & Nerves. Posterior Cutaneous Nerve of thigh. Internal Pudendal Vessels - - -	• Cut. Ns. In Gluteal region • Nerve to Obturator Internus	• Muscles of the region. • Origin of hamstrings. • Sciatic Nerve • Sacrotuberous lig.	• Actions of Gluteus Medius & Minimus with Trendelenberg's sign • Relations of sciatic N. with reference to sciatica. • Anastamoses
						APPLIED ASPECT	
						• Intramuscular injection	

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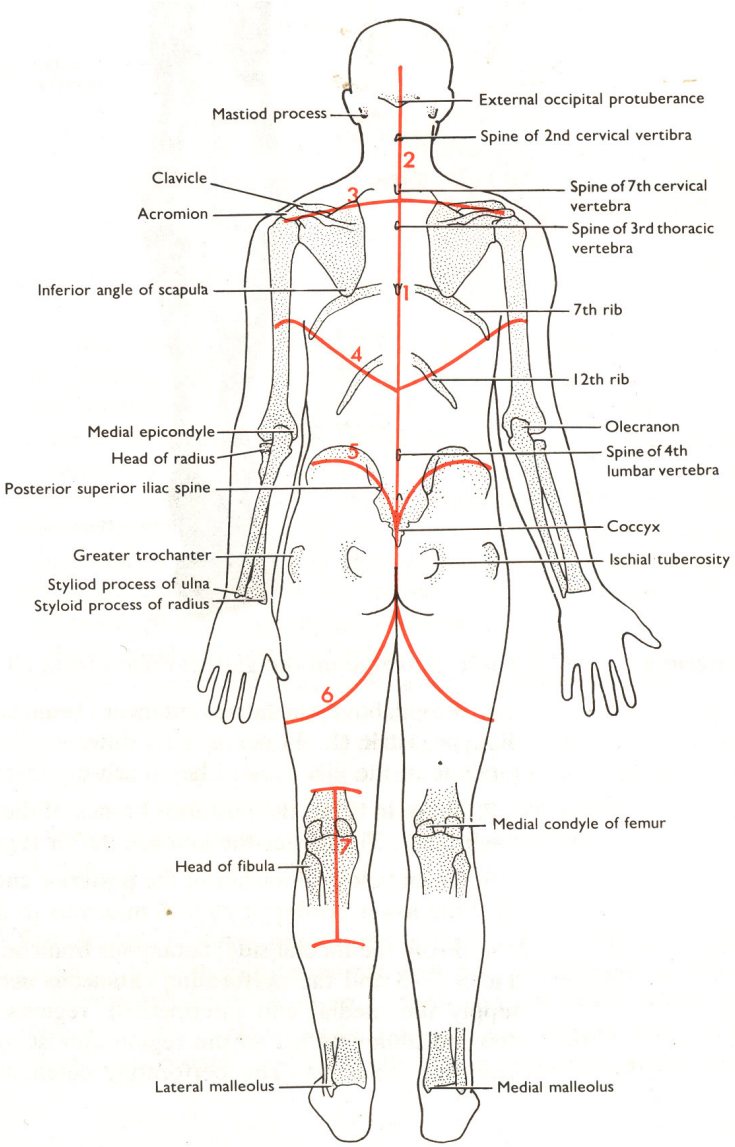
DISSECTION - INCISIONS



S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
5.	BACK OF THIGH	•A median vertical incision on the back of the thigh extending from middle of incision 6 (given earlier) to upper third of leg. •Turn skin flaps & remove superficial .fascia •Divide deep fascia vertically •Remove fascia from Hamstrings ,	• Semimembranosus • Semitendinosus • Biceps Femoris (both heads) • Adductor Magnus (Ischial head) • Sciatic nerve • Adductor Hiatus • Emergence of Popliteal Vessels.	• Posterior cutaneous nerve.of thigh	• Muscular branches from sciatic Nerve .to Hamstrings • Perforating branches from Profunda femoris, passing through	• Muscles of back of the thigh. • Sciatic Nerve **APPLIED ASPECT** • Sciatica	• Hamstring Muscles with their actions. • Division of sciatic Nerve, their distribution & relations

		separate them & define their attachments •Detach hamstrings from ischial tuberosity & turn aside to expose Add. Magnus - insertion & post. surface			Adductor Magnus	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
6.	POPLITEAL FOSSA	• Skin incision 7 • Reflect skin flaps laterally • Reflect superficial & deep fascia. • Remove the fascia over the ms. forming the boundaries • Clean the contents	Boundaries: • Supero - medial: Semimembranosus & Semotendinosus • Supero -lateral: Biceps femoris • Inferomedial: Gastrocnemius (medial head) • Inferolateral. : • Gastrocnemius (lateral head) • Popliteal .Artery • Popliteal Vein.& opening of S.S.V into it • Tibial Nerve • Common Peroneal Nerve	Sup. Contents : • Small Saph. V. • Genicular brs. of Popliteal .artery. • Nerve to Popliteus	• P.C.N of thigh • Sural N. • Lateral Cutaneous Nerve of calf • Popliteal Group of Lymph Nodes • Popliteal pad of fat.	• Muscles forming boundaries • Main contents • (Superficial; Deep) **APPLIED ASPECT** • Swellings in Popliteal fossa	• Relationship of Artery, Vein & Nerve in upper, middle & lower third of the fossa . • Area drained by Popliteal lymph node.

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
7.	HIP JOINT	• Cut Femoral Vessels. Inferior to Inguinal Ligament • Detach sartorius & rectus femoris about 5 cm. from their origin & turn them downwards. • Cut the Ilio - Psoas near its insertion. Turn it upwards.	• Identify the fibrous capsule • Define attachment of capsule • Expose & identify I.F.lig. • Identify:			• Ligs .of Hip.jt	• Hip jt. & its: - Classification - Relations -Mov. & Ms. causing them (demo) -Bl.&N.supply -Applied anat. -Referred pain -Trendelenberg sign -# Fem.neck

		• Cut the capsule & expose femoral head • Disarticulation: -<u>Anteriorly:</u> - Cut through adductors at Ischio - Pubic ramus -<u>Posteriorly:</u> -Detach Gluteus Minimus -Cut Hamstrings at origin (Ischial tuberosity) & - Cut all short muscles. - Cut Sciatic N. Cut through the capsule posteriorly, & detach lower limb from the trunk.	- Labrum acetabulae - Tr. Acetabular lig. - Lig. of Fem.head	Pubo-femoral lig.	Ischio-femoral lig.		
						APPLIED ASPECT • Fracture neck of femur • Trendelenberg sign • Referred pain • Dislocation	

No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
8.	FRONT OF LEG & DORSUM OF FOOT	• Incision no.11 • Give a horizontal incision across malleoli • Reflect the skin flaps from leg & dorsum • Remove sup. fascia &identify • Remove deep fascia & identify • Note modification of deep fascia - The Retinaculi • Clean the structures passing dep to retinacula • Clean & trace structures on the dorsum	• Great Saphenous Vein (commences in front of medial malleolus) • Muscles of antr Compartment. (from medl.to latl) T.A;E.H.L;E.D.L& P.T. Extensor Retinacula : - Superior - Inferior • From Med. To.Lat. T.A.E.H.L. Dorsalis pedis art. Deep per.N. E.D.L.& P.T • Dorsalis Pedis artery • E.D.B. & E.H.B • Tendons of P.L.& P.B	• Superficial Peroneal Nerve • Deep peroneal Nerve • Supfl. Per.N • Sural N	• Saphenous Nerve • Dorsal Venous arch • Branches from Dorsalis Pedis artery • Saphenous Nerve	• Muscles of anterior compt. - T.A;E.H.L;E.D.L;P.T • Muscles of the dorsum of the foot: E.D.B;E.H.B. • Tendons of P.L.& P.B. • Ext. retinaculum & structures deep to them • Dorsalis pedis artery	• Applied imp.of dorsalis pedis • Fate of dorsalis pedis artery • Ns. On dorsum of foot.
						APPLIED ASPECT • Dorsalis pedis artery • Venesection	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
9.	LATERAL SIDE & BACK OF LEG	• Divide deep fascia on the lateral aspect of leg.	• Muscles: -P.L. -P.B. • Nerves: - Common.Per.N - Sup.Per.N	• Peroneal retinacula		• Ms. of the lateral compt. & their actions. • Sup. Ms. of calf gastrocnemius soleus plantaris	• C.P.N. & Sup. P.N. & foot drop. • Locking & Unlocking of knee joint

		• Remove fascia from the medial aspect of upper end of tibia • Remove sup. & deep fascia from the back of the leg • Cut both ends of the gastrocnemius close to its origin & reflect them down • Detach soleus from the libia & turn it laterally • Divide longitudinally the inter muscular septum (I.M.S) • Expose the deep ms. along with neurovascular bundles • Clean the deep fascia on the medial side of ankle & note its modification	• Saphenous N. • Muscles(med.to.lat) -Sartorius -Gracilis -Semi-tendinosus • G.S.V. • S.S.V. draining into Pop.V. • Gastrocnemius (B.H) • Tibial N. • Soleus & its attachments • Popliteus & N. to Pop. • F.H.L;F.D.L; • Tib. Post • Divn. of Pop. Artery (at lower border of Pop.) into Antr & Postr tibial arteries. • Flexor Retinaculum: • Structures deep to it: from before backwards • Tibi. Postr;F.D.L.; Post. Tib. Vessels. & Nerves; F.H.L	• Sural N. • Plantaris		• Deep muscles: • Pop.& Its actions • F.H.L., F.D.L., T.P • Structures deep to Flexor retinaculum	• Flexor retinaculum -its attach. & functions.
						APPLIED ASPECT		
						• Foot drop		

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
10.	SOLE OF THE FOOT (**PROSECTION ONLY**)	• Give a longitudinal incision from the heel to the root of middle toe. • Reflect skin & sup.fascia • Cut the plantar aponeurosis close to the heel & reflect it forward • Cut across F.D.B. in the middle & reflect it to expose 2nd layer	• Plantar aponeurosis • Muscles of first layer (from med. to lat.) -Abd.H.B -Flexor Digit Brevis -Abductor Digiti Minimi • Med. & Lat. Plantar Vessels & Nerves. By the side of FDB • Muscles & tendons of second layer: -Tendon of	• Medl. & latl. plantar Vessels & Nerves.	• Med. Cal Ns. & Vs. • Muscular branches toms. By med. & lat. Plantar Ns.	• Various layers of sole • Muscles of • First layer • Second layer • Third layer • Fourth layer	• Placement of N.V. bundle & plantar arch • Actions & function of long flexor tendons • Role of T.A.,T.P. & P.L. in maintenance of arches of the foot

		• Cut across tendons of F.H.L. & F.D.Acc. through the middle & reflect them • Detach F.H.B. & Add. Hallucis (Obl.Head) from their origins	F.H.L -Tendon of F.D.L -Flex .Digit .Acc (attach to F.D.L) -4 lumbricals in -Tendon of F.D.L. • Muscles of third layer: (from med. to lat) -F.H.B. -Add. Hallucis -F.D.M.B. • Muscles & tendons of the fourth layer : -Tendons of P.L. & T.P -Plantar interossei	• Long & short plantar ligaments		**APPLIED ASPECT** • Pes cavus • Pes planus • March fracture • Congenital talipes equino varus (CTEV) • Morton's metatarsalgia

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
11.	KNEE JOINT	• Remove the structures covering the jt. • Clean & define fibrous capsule • Cut across quadriceps tendon above patella, extending this incision down to tibial condyles on either side of Ligamentum patellae • Turn patella down & expose the cavity of the knee joint.	• Fib. Cap & its attachments • Coll. Ligs -Tibial Collateral Lig. -Fibular Collateral Lig. • Ligamentum patellae • Oblique Pop.Lig. • Tendon of popliteus • Tendon of semimembranosus • Menisci - (Medial and lateral) • Cruciate ligs.	• Menisco-femoral lig. • Transverse Lig	• Arcuate Pop.lig • Coronary lig.	• Capsule & ligs. -T.C.L. & F.C.L. -Lig. Patellae -Ob.Pop.Lig. • Intracapsular structures: -Menisci -Cruciate ligs.	• Movts. & ms. causing them • Role of popliteus in unlocking of the knee jt. (demo. On bones.) • Actions, functions & applied anatomy of -Menisci -Cruciate ligs.
						APPLIED ASPECT • Tear in the menisci • Tear in the cruciate ligaments	

S.No	TOPIC	DISSECTION STEPS	WHAT IS EXPECTED FROM THE STUDENTS			SUMMARY	
			LEVEL 1	LEVEL 2	LEVEL 3	IDENTIFY	UNDERSTAND
12.	ANKLE JOINT	• Remove both Flexor & Extensor retinacula around the ankle jt. • Clean & define the fibrous capsule • Divide all tendons which are in contact with the	• Fibrous Capsule			• Fibrous capsule • Deltoid Lig. • Lat.Lig	• Classification & movt. Permitted along with the ms. causing them • Sprain of the ankle jt. • Pott's fracture

		joint & reflect them.	& its attachments • Deltoid Ligament • Lateral ligament • Inferior tibiofibular ligament with reference to the ankle joint				

SECTION – II
(Course Content under Level – I, II, III)
TUTORIALS
OUTLINE OF TUTORIALS

S.No	TOPIC	MUST KNOW	SHOULD KNOW	COULD KNOW
1.	HIP BONE	1. Type of bone 2. Parts of bone 3. Side determination 4. Anatomical position 5. Features of bone 6. Gen. attachment of muscle groups 7. Demonstration of movements of Hip joint 9. Structures through sciatic formation 10. Sex Differences 11. Joints assoc. with each bone 13. Clinical considerations: - Pubic tubercle - Iliac crest-highest pt. - BM aspiration & graft	8.Attachment of Ligaments 12. Clinical: Dislocation of hip	14. Clinical considerations: #bone Rider's bone
2.	FEMUR	1. Type of bone 2. Parts of bone 3. Side determination 4. Anatomical position 5. Features of bone 6. Hip joint capsular attachment 7. General attachment of muscles around hip & knee 8. Iliofemoral ligament 10. Adductor tubercle 12. Ossification lower end	9. Collateral ligament of Knee joint & Cruciate ligament 11. Ossification in details	

		femur 13. Clinical considerations: - # Neck - Dislocation - Blood supply of head of femur	14. Clinical: - Bryant's triangle - Nelaton's line - Coxa vera & vulga	15. Clinical considerations: - Calcar femorale
3.	PATELLA	1. Type of bone 2. Attachment of Quadriceps & Ligamentum patellae; vastus medialis 4. Clinical considerations: - # Patella - Dislocation	3. Side determination	
4.	TIBIA & FIBULA	1. Type of bone 2. Parts of bone 3. Side determination 4. Features of bone 5. Capsular attachment of knee 6. Ligament attachment: - Cruciate - Menisci	7. Capsular attachment ankle jt. 8. Attachment collateral Lig. of knee & Ankle; Deltoid Lig. 9. Clinical: - Weight transmission	
5.	ARTICULATED FOOT	1. Arrangement of tarsal bones 2. Weight transmission 3. Arches: - General arrangement - Maintenance - Functions 4. Clinical: Flat foot, CTEV 5. Identification of individual bone- Calcaneum - Talus - Cuboid - Navicular 6. Calcaneum & Talus: a. Muscles & ligament attachment b. Movements associated with Talus	7. Clinical: - March fracture - Metatarsalgia - Calcaneal Spur	
6.	LIVING ANATOMY & RADIOLOGY	1. Demonstration of movements of all joints 2. Pulsations of dorsalis pedis 3. Palpation of common peroneal nerve 4. Bones & joints identification - Shenton's line - Calcar femorale		
7	SURFACE ANATOMY	Palpation of: Anterior superior iliac spine, Iliac crest, Tubercle of the iliac crest, Ischial tuberosity, Greater tuberosity, Adductor tubercle, Head and neck of fibula, Lateral and medial malleoli, Tibial tuberosity, Subcutaneous surface of tibia, Patella, JOINTS: Demonstration of movements at: Hip, Knee, Ankle, Subtalar	Thickening of commonperoneal nerve in leprosy. Tendons: Semetendinosus, Semimembranosus, Biceps femoris, Iliotibial tract. Palpation of vessels: Femoral, Popliteal, Dorsalis pedis, Posterior tibial. Others: Ligamentum patellae, Inguinal lymph nodes	

		joints MUSCLES: Demontration of the actions of- At the hip: Flexors, Extensors, Adductors and Abductors At the knee: Flexors, Extensors Ankle: Dorsiflexors, Plantar flexors Subtalar: Evertors, Invertors NERVES: Dermatomes through Femoral, Sciatic, Tibial, Common peroneal, Obturator.		