

# VIVAs LOWER limb

## ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Knee joint; ligaments; stability NUMBER: 11/4 - 4

OPENING QUESTION	Demonstrate the bony features on this x-ray.	COMMENTS
POINTS REQUIRED	1 Bones – femur; tibia; fibula	8 = pass
	2 Patella (sesamoid)	
	3 Tibia – intercondylar eminence (ICE); posterior intercondylar area; anterior intercondylar area	
	4 Tibia - tuberosity	
	5 Tibia –condyles (lateral; medial)	
	6 Femur – condyles (lateral; medial)	
	7 Femur – epicondyles (lateral; medial)	
	8 Fibula – head of fibula	
PROMPTS	Indicate features and ask	
SECOND QUESTION	Using the x-ray as a guide, describe the cruciate ligaments.	
POINTS REQUIRED	1 Cruciates – anterior (ACL) (anterior part ICE → postero-medial lat femoral condyle) and posterior (PCL) (stronger; posterior part ICE → ant-lat med femoral condyle)	Both correct to pass
	2 Ligaments of fibrous capsule: ligamentum patellae (continuation of Quadriceps Femoris tendon → tib tuberosity); fibular collateral (lateral) ligament (lat epicondyle of femur → head of fib); tibial collateral (medial) ligament (med epicondyle of femur → medial surface of tibia); oblique popliteal ligament (expansion of tendon of Semimebramosis; strengthens capsule posteriorly); arcuate popliteal ligament also strengthens capsule posteriorly; post aspect of head of fib → ICE and post aspect of lat epicondyle of femur)	Extra if doing well
	3 Others: menisci joined anteriorly by transverse ligament; medial cruciate joined to PCL by posterior menisco-femoral ligament	
THIRD QUESTION (if needed)	What are the factors that contribute to stability of the knee joint?	If doing well and sufficient time
POINTS REQUIRED	1 Strength of surrounding muscles (most important): particularly Quadriceps femoris (especially lower fibres of Vastus medialis and Vastus lateralis)	
	2 Strength of surrounding ligaments	
	3 Bony structures (minor)	

No prompts.

COMMENTS Must pass questions 1 & 2 to pass overall

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Q1:	Using this model, indicate the major ligaments of the knee and their attachments  Prompt: Extrinsic (5) & Intrinsic	<b>Patellar:</b> apex patella to tibial tuberosity . <b>Fibular collat:</b> lat femoral condyle to lat. fibula head <b>Tibial collat:</b> medial condyle to medial tibia & med. meniscus <b>Cruciates:</b> <b>Ant cruciate:</b> Ant intercondyle tibia to post part lateral fem condyle <b>Post cruciate:</b> Post intercond to anterolat medial condyle femur <b>Post Menisco-femoral</b>	Must know med, lat collats and cruciates and patella lig to pass
Q 2:	What are the actions of these ligaments	Patella part of ant joint capsule Fib and tibial collat: Taut in extension & relax in flexion to check rotation Cruciates: reduce medial rotation & allow lateral rotation until stopped by medial lig. Ant: prevent post displacement & hyperextension Post: prevent hyperflexion & stabilise knee in flexion	Ant and post cruciate to pass
Q 3:	What are the attachments of the menisci	Attached to intercondylar area tibia External parts attached to capsule 2 ligaments: coronary lig from art margins femur & tibia except under politeus tendon & transverse lig anteriorly to each other <b>Medial:</b> anterior horn to intercondylar area tibia in front of ACL & post horn in front of PCL <b>Lateral:</b> both horns attached intercondylar area tibia immediately in front of & behind intercondylar spine	Predominate attachment is intercondylar ridge

PROMPTS	SECOND QUESTION (if needed)	POINTS REQUIRED
	1A: WHAT FACTORS CONTRIBUTE TO STABILITY OF PATELLA	2/3 TO PASS
	1 BONE – SHAPE OF LATERAL CONDYLE FEMUR	
	2 LIGAMENT – MEDIAL PATELLA RETINACULUM	
	3 FIBRES OF VASTUS MEDIALIS	

SECOND QUESTION (if needed)	POINTS REQUIRED	COMMENTS
Describe the capsular attachments of the knee		
	1 attached to the margins of the articular surfaces	
	2 Femoral - posteriorly to prox margin of the condyles	
	3 anteriorly – deficit allowing for suprapatellar bursa - blends with patella retinacula and ligament	
	4 laterally - passage of popliteus tendon	
	5 - attach to head of fibula	
	6 medially –deep component of med collat lig. + Meniscus	
	7 weak attachment to both menisci	4/7 to pass

<b>THIRD QUESTION</b>	<b>Describe the main anatomical features of the cruciate ligaments</b>	
<b>POINTS REQUIRED</b>	1 Intracapsular but extrasynovial (covered by synovium on front and sides but not posteriorly) Cruciates cross each other like "X" with ant cruciate lying anterolateral to the post cruciate	
	2 <i>Ant cruciate</i> ; Anterior part of tibial plateau* between attachments of ant horns of med and lat menisci Ascends posterolaterally twisting on itself Attaches to posteromedial aspect of lat fem condyle*	Essential to demonstrate an understanding of attachments
	3 <i>Post cruciate</i> ; Stronger shorter and less oblique Smooth impression on post part of tibial intercondylar area (which extends to the uppermost part of post surface of tibia Ascends anteromedially Attaches to anterolateral aspect of med fem condyle	Essential to demonstrate an understanding of attachments

<b>THIRD QUESTION (if needed)</b>	Demonstrate their attachments on the tibia?	
<b>POINTS REQUIRED</b>	1 Anterior cruciate	
	2 Posterior cruciate	
	3 Medical collateral superficial and deep	
	4 Ligamentum patellae	3 of 4 to pass

<b>QUESTIONS AND POINTS REQUIRED</b>	On the model demonstrate the movements of the bony components of the knee joint in going from flexion to extension when the foot is on the ground.	1. Lateral condyle completes its extension short of full extension, 2 lateral condyle rotates forwards around tight ACL, 3 medial condyle glides backwards as full extension approaches. 4.Result is 10 deg of hyperextension (First 2 to pass)
	Which muscles flex and extend the knee.	Flex – Hamstrings, Sartorius, Gracilis, Gastrocnemius, Plantaris, Popliteus. (Hams and Pop – unlock and 1 other to pass)  Extension – Quads and Tensor Fascia Latae (Quads to pass)

TOPIC: Femur \_\_\_\_\_ NUMBER: 1-3 \_\_\_\_\_

OPENING QUESTION	Identify the landmarks on the upper end	COMMENTS
POINTS REQUIRED	1 Gt Trochanter	6 of 9
	2 Lesser Trochanter	
	3 Intertrochanteric line (ant), crest (post)	
	4 Quadratic Tubercle	
	5 Trochanteric Fossa	
	6 Neck	
	7 Head & Fovea	
PROMPTS	Point and ask smaller ones	

SECOND QUESTION (if needed)	What factors contribute to the stability of the hip joint?	Ligs-3- (iliofemoral), muscles + bony features to pass + socket
POINTS REQUIRED	1 Ligaments: winding parallel fibres (Orbicular lig)	
	2 Transverse acet. ligament & acetabular labrum complete acetabular rim over whole socket	
	3 Intrinsic ligaments of joint: iliofemoral (strongest), ischiofemoral & pubofemoral	
	4 Muscles: lateral & medial rotators (overlying rectus)	
	5 Anteriorly muscles weaker than ligament, reverse posteriorly	
	6 Bone; ilium lies directly over femur – transfer of weight	
PROMPTS		

THIRD QUESTION (if needed)	What are the attachments of the capsule?
POINTS REQUIRED	1 Intertrochanteric Line anteriorly
	2 Halfway along neck posteriorly (because of obturator externus)

<p>b. What is the blood supply of the neck and head of the femur?</p> <p>PROMPT: Which is the main supply?</p>	<p>b. Blood supply to neck and head</p> <ul style="list-style-type: none"> <li>o Medial and lateral circumflex femoral aa</li> <li>o Usually branches of deep artery of thigh (profunda femoris)</li> <li>o Branch to form retinacular aa (from medial&gt;lateral), feed under the posterior unattached capsule (med) or through the iliofemoral ligament (lat)</li> <li>• Artery to the head of the femur (less)               <ul style="list-style-type: none"> <li>o Branch of obturator a</li> <li>o travels in the ligament of the head</li> </ul> </li> </ul>	<p>b. Need to demonstrate understanding of dual supply, and relative contributions (circumflex aa&gt;a of head of femur)</p>
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<p>c. How does the capsule of the hip joint attach on this bone? (BONUS)</p>	<p>c. Capsule of hip joint on femur</p> <ul style="list-style-type: none"> <li>• Most fibres spiral around the joint to attach at the intertrochanteric line and root of greater trochanter</li> <li>• Posteriorly, fibrous layer crosses the neck proximal to the intertrochanteric crest, but is not attached</li> <li>• deep fibres pass circularly around the neck to form orbicular zone</li> <li>• The capsule thickens into three ligaments:               <ul style="list-style-type: none"> <li>o Ilio-femoral- intertrochanteric line</li> <li>o Pubofemoral- merges with fibrous capsule</li> <li>o Ischiofemoral- into femoral neck, medial to the base of the greater trochanter</li> </ul> </li> </ul>	<p>c. Be able to demonstrate understanding of capsular attachment</p>
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TOPIC 2	Hip Joint Model	
QUESTIONS AND POINTS REQUIRED	<p>On this model, demonstrate the factors maintaining stability of the hip joint:</p> <p>Bony: acetabular socket reinforced by labrum</p> <p>Ligaments: capsule, iliofemoral, ischiofemoral, pubofemoral ligaments</p> <p>Muscles: short muscles esp. gluteus medius and minimus</p>	Acetabulum and labrum, 3 ligaments to pass
	Describe the attachments of the iliofemoral ligament Anterior inferior iliac spine to intertrochanteric line	Attachments to pass
	Demonstrate the least stable position of the hip Flexion and adduction	All to pass

	<p>b. What are the lateral rotators of the femur, and where do they originate?</p>	<p>b. Lateral rotators of hip</p> <ul style="list-style-type: none"> <li>• Piriformis <ul style="list-style-type: none"> <li>○ anterior sacrum and sacrotuberous ligament</li> </ul> </li> <li>• Obturator internus / (externus) <ul style="list-style-type: none"> <li>○ Pelvic/ext surface of obturator membrane and surrounding bones</li> </ul> </li> <li>• Superior gemellus <ul style="list-style-type: none"> <li>○ Ischial spine</li> </ul> </li> <li>• Inferior gemellus <ul style="list-style-type: none"> <li>○ Ischial tuberosity</li> </ul> </li> <li>• Quadratus femoris <ul style="list-style-type: none"> <li>○ lateral border of ischial tuberosity</li> </ul> </li> <li>• Gluteus maximus (minor) <ul style="list-style-type: none"> <li>○ Ilium posterior to posterior gluteal line, dorsal surface of sacrum and coccyx, sacrotuberous ligament</li> </ul> </li> </ul>	Need 2 to pass
<p>b) Demonstrate the attachments of the adductor muscles of the hip.</p>	<p><u>Adductor longus</u> - Middle 1/3 linea aspera  <u>Adductor brevis</u> - Pectineal line and proximal linea aspera  <u>Adductor magnus</u> - Adductor part – linea aspera, medial supracondylar line  Hamstring part (not strictly in this Q) adductor tubercle  [Gracilis]  Not femur (tibia)  <u>Pectineus</u>  Pectineal line inferior to lesser trochanter  <u>Obturator Externus</u>  Trochanteric fossa</p>	3 to pass	

TOPIC: Ankle x-ray – stability and ligaments \_\_\_\_\_ NUMBER: Th AM #1

OPENING QUESTION	Identify the bones on this x-ray	COMMENTS
POINTS REQUIRED	1 fibular/lateral malleolus	6 of 8 to pass
	2 tibia/medial malleolus	
	3 talus – head, neck, dome	
	4 calcaneus	
	5 navicular	
	6 cuneiforms	
	7 proximal 2/3s of the metatarsals	
	8 cuboid	
PROMPTS	Can you identify any specific parts of that bone	
SECOND QUESTION (if needed)	What factors contribute to stability of the ankle joint	3/3 ligs named to pass
POINTS REQUIRED	1 Bones – talus sandwiched between tib and fib	
	2 Muscles – all muscles that cross the jt	
	3 Ligaments – main factor: medial (deltoid), lateral (3 parts), and post tibiofibular	
	4	
PROMPTS		
THIRD QUESTION (if needed)	Demonstrate the attachments of the lateral ligament on the x-ray	2/3 to pass
POINTS REQUIRED	1 ant talofib- ant border of lat mal to neck of talus	
	2 calcaneofibular – tip of lat mal down and back to lat surface of calc	
	3 post talofib – post aspect of lat mal horizontally to lat tubercle of talus	

TOPIC: Ankle X-Ray \_\_\_\_\_ NUMBER: 3-1

OPENING QUESTION	Identify the major bony features visible on this xray.	COMMENTS
POINTS REQUIRED	1 Tibia / Posterior malleolus / medial malleolus	5 to pass
	2 Fibula / lateral malleolus	
	3 dome of talus	
	4 calcaneum	
	5 navicular	
	6 cuboid	
	7 base of Vth MT + metatarsals	
PROMPTS		
SECOND QUESTION (if needed)	Describe the ligaments that stabilise the ankle joint	Lat, Med, 3 of 4 Lat
POINTS REQUIRED	1 Medial: (Deltoid ligament) -superficial	
	2 -Deep(spring)	
	3 Lat: Anterior talofibular	
	4 Lat: Posterior talofibular	
	5 Lat: calcaneofibular	
	6 Lat: post Tibiofibular	
PROMPTS		

THIRD QUESTION What is the function of the inferior extensor retinaculum?

Prevent bowstringing of extensor tendons when ankle dorsiflexed.

**ACEM 2007.2 PRIMARY VIVA EXAMINATION**

**SUBJECT:** ANATOMY 6 September 2007 pm.

**TOPIC:** MODEL: ANKLE \_\_\_\_\_ **NUMBER:** 3

<b>OPENING QUESTION (if needed)</b>	Demonstrate the attachments of the inferior extensor retinaculum	
<b>POINTS REQUIRED</b>	1 upper anterior surface of calcaneus	
	2 Y-shaped 1. medial malleolus 2. blends with plantar aponeurosis	
	3	
<b>PROMPTS</b>		
<b>SECOND QUESTION (if needed)</b>	Identify the structures passing beneath the IER	4/6 to pass
<b>POINTS REQUIRED</b>	1 tibialis anterior	
	2 extensor hallucis longus	
	3 ant tibial artery ----- dorsalis pedis artery	Level of ankle joint
	4 deep fibular nerve	Deep peroneal nerve
	5 extensor digitorum longus	
	6 fibularis tertius	Peroneus tertius
<b>PROMPTS</b>		

	Demonstrate the capsular attachments (AP view):	Articular margins extending over neck of talus
	Demonstrate the ligamentous attachments (lateral):	Deltoid with superficial and deep parts, Lateral with 3 parts, Posterior tibiofibular

Questions	Points required	Comments	
1. Pls demonstrate the attachments of the ligaments of the ankle	<b>1. Med – deltoid –</b> a) deep – med. mall. to side of talus below art. surface b) superficial – triang –from borders of med mall to wide attachment from med tubercle talus along susten tali, spring lig, to tuberosity of navicular <b>2. Lat – 3 bands</b> a) ant. talofib – ant border lat mall to neck of talus b) calcaneofib – front of tip of lat mall down & back to lat surface calc c) post talofib – horizontal, from malleolar fossa to lat tubercle of talus, strong	Reasonable understanding and demonstration required  <b>Prompt:</b> What are the main ligg of the ankle?	
2. What factors contribute the stability of the ankle?	Bone – med & lat malleoli Ligg – med, lat - ant & post tibiofibular		
TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTE
Question 1:  X-ray: Lateral Ankle	Please identify the bones on this xray.  What movements occur at the ankle joint?	Tibia, fibula, calcaneus, talus, navicular, cuboid Metatarsal and cuneiforms (grouped) Lateral and medial malleoli  Dorsi and plantar flexion – some laxity in plantar flexion (not inversion/eversion)	These 6 to pass

ACEM 2003.1 PRIMARY VIVA EXAMINATION

TOPIC: Ankle \_\_\_\_\_ NUMBER: \_\_\_\_\_

SUBJECT: ANATOMY

TOPIC: Ankle \_\_\_\_\_ NUMBER: 4AM \_\_\_\_\_

OPENING QUESTION		COMMENTS
POINTS REQUIRED	1) Distal Tibia	
	2) Distal Fibula	
	3) Calcaneous	
	4) Talus	
	5) Metatarsals 1 <sup>st</sup> and 5th	
PROMPTS		
SECOND QUESTION (if needed)	What are the neurovascular relations of the medial malleolus?	3 / 4 to pass
POINTS REQUIRED	1) Post tibial artery post	
	2) Tibial nerve post	
	3) Venae comitantes of the artery post	
	4) Great saphenous nerve and vein anterior	
	5	
	6	
PROMPTS	What nerves and vessels run close to the medial mall?	
THIRD QUESTION (if needed)	How much of the skin of the foot is blocked if you do a post tibial block behind the med. Mall.	
POINTS REQUIRED	1) Medial plantar nerve...medial side of foot	
	2) lateral plantar...lateral side of foot	
	3)doesn't block the lateral side of heel, foot..sural	
	4	

OPENING QUESTION	USING THIS MODEL, CAN YOU IDENTIFY THE MUSCLES INVOLVED IN PLANTAR FLEXION AT THE ANKLE?	COMMENTS
POINTS REQUIRED	SUPERFIC: GASTROCNEMIUS SOLEUS PLANTARIS DEEP: FL DIGITORUM LONGUS FL HALLUCIS LONGUS TIBIALISPOSTERIOR (PERONEUS LONGUS/BREVIS)	3/7
	2	
	3	
	4	
	5	
	6	
	7	
PROMPTS		
SECOND QUESTION (if needed)	WHAT IS THE NERVE SUPPLY THESE MUSCLES?	
POINTS REQUIRED	POSTERIOR TIBIAL NERVE	

a) Identify the ankle dorsiflexors on this model?	1) tibialis anterior 2) Extensor digitorum longus 3) extensor hallucis longus 4) fibularis (peroneus) tertius	3/4 to pass
b) What is their nerve supply?	All supplied by deep fibular (peroneal) nerve (L4)	know nerve pass
c) Identify the insertions?	1) TA medial cuneiform and base 1 <sup>st</sup> MT 2) EDL middle and distal phalanges lateral 4 digits 3) EHL base distal phalanx hallux 4) FT 5 <sup>th</sup> MT	

What are the parts of the talus

Trochlear (dome), head and neck

2 of 3

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Anatomy \_\_\_\_\_ NUMBER: Thurs p.m Question 1

OPENING QUESTION		COMMENTS
<b>POINTS REQUIRED</b>	Identify the bones of the tarsus	6 out of 7 correct to pass
	1 Talus (head, neck, dome, groove for FHL post, groove for tibialis posterior on plantar surface, articular surfaces for calcaneum, navicular + ankle mortise)	
	2 Calcaneum (shelf= sustentaculum, groove for FHL, site of insertion of tendo achilles, insertion of long plantar ligament on plantar surface, articular surfaces for talus + cuboid)	(Extra marks for detail)
	3 Cuboid	
	4 Navicular	
	5 Medial, middle + lateral cuneiforms	
	6	
	7	
<b>PROMPTS</b>		
<b>SECOND QUESTION (if needed)</b>	Demonstrate the attachments of the medial collateral ligament (= 'deltoid ligament')	2 of the 4 parts to pass
<b>POINTS REQUIRED</b>	1 Posterior tibio-talar (to medial tubercle of talus)	
	2 Tibio-calcaneal (to calcaneal shelf =sustentaculum tali)	
	3 Tibio-navicular (to tuberosity of navicular)	
	4 Anterior tibio-talar	
	5	
	6	
<b>PROMPTS</b>		
<b>THIRD QUESTION (if needed)</b>	Describe the structures running immediately posterior to the medial malleolus	2 to pass - correct order from superficial to deep needed
<b>POINTS REQUIRED</b>	1 Tibialis posterior tendon	
	2 Posterior tibial artery	
	3 Posterior tibial nerve (lying deep to the artery)	
	4	

ACEM 2007.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY Friday 7 September 2007 am

TOPIC: Ankle \_\_\_\_\_ NUMBER: 3 \_\_\_\_\_

OPENING QUESTION (if needed)		3 / 5 to pass
<b>POINTS REQUIRED</b>	Demonstrate the structures passing behind the medial malleolus	
	1) TP	
	2) FDL	
	3) Posterior tibial artery	
	4) Tibial nerve	
	5) Flexor hallucis	
	5	
	6	
<b>PROMPTS</b>		
<b>SECOND QUESTION</b>	What is the cutaneous innervation of the tibial nerve?	
<b>POINTS REQUIRED</b>	1) Medial plantar nerve...medial sole of foot	½ to pass
	2) lateral plantar...lateral sole of foot	
	3) also calcaneal branches	
	4	
<b>Question 2:</b> <b>Bone: Ankle Joint</b>	<p>a) identify the bony landmarks of the ankle</p> <ul style="list-style-type: none"> <li>▪ prompt if not provided – what are the features of this bone (point at talus or name if already named)</li> </ul> <p>b) Name the structures passing behind the medial malleolus</p>	<ul style="list-style-type: none"> <li>▪ lat malleolus</li> <li>▪ medial malleolus</li> <li>▪ talus</li> <li>▪ trochlea talus</li> <li>▪ head talus</li> <li>▪ neck talus</li> <li>▪ body talus</li> <li>▪ lateral tubercle talus</li> <li>▪ medial tubercle talus</li> <li>▪ groove for flexor hallucis longus</li> </ul> <ul style="list-style-type: none"> <li>▪ Tibialis posterior</li> <li>▪ Flexor digitorum longus</li> <li>▪ Posterior tibial artery</li> <li>▪ Tibial nerve</li> <li>▪ Flexor hallucis</li> </ul>



ACEM 2005.2 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Model: Femoral Triangle \_\_\_\_\_ NUMBER: 2.1 \_\_\_\_\_

OPENING QUESTION	Identify the muscles that make up the femoral triangle and describe its contents.	COMMENTS
POINTS REQUIRED	Sartorius* Adductor longus* Iliacus Psoas Pectineus Adductor longus  Contents: (medial to lateral) Femoral canal Femoral vein* Femoral artery* Femoral nerve*	*essential to identify plus 2/3 of other muscles to pass
SECOND QUESTION	Please describe the course of the femoral artery from the inguinal ligament to the popliteal fossa	
POINTS REQUIRED	1 Art enters thigh at midinguinal point* (mid b/w ASIS & pubic symp on psoas tendon overlying capsule of hip jt) 2 Runs deep to sartorius at lower end of triangle* 3 Enters adductor canal* 4 Anterior to femoral vein (post to saphenous nerve) 5 Passes into popliteal fossa through adductor hiatus* in adductor magnus	*essential
PROMPT	At which point does it enter the thigh?	
PROMPTS	Please name the branches of femoral artery in the femoral triangle.	
	Superficial cutaneous branches: Superficial circumflex iliac Superficial epigastric Superficial external pudendal Deep external pudendal Profunda femoris	Mention existence of cutaneous branches and name profunda
PROMPTS		

ACEM 2006.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY Thurs 6<sup>th</sup> Pm Q3

TOPIC: Femoral triangle photo - position of femoral artery NUMBER: TH ~~PH~~ AM L

3

OPENING QUESTION	Identify the Femoral Artery and related structures	COMMENTS
POINTS REQUIRED	1 Fem Art	
	2 Fem Nerve and Vein (and canal)	
	3 Medial muscles: Add longus, pectineus	
	4 Lateral Mus: Iliacus, sartorius	
	5 Inguinal ligament	
	6 Deep is Psoas ligament	
	7 Deeper is Hip capsule	
		5 of 7 to pass

TOPIC: limb myotomes \_\_\_\_\_ NUMBER: 3.4 \_\_\_\_\_

OPENING QUESTION	Describe the myotomes of the lower limb	COMMENTS
POINTS REQUIRED	<ol style="list-style-type: none"> <li>hip flexion L23, extension L45</li> <li>knee extension L34 flexion L5 S1</li> <li>ankle flexion L4 5 extension S 1 2</li> <li>inversion L4 eversion L5 S 1</li> <li>big toe L5 S 1 extension S 1 2</li> </ol>	
PROMPTS		
SECOND QUESTION (if needed)	What functional deficit results from injury to the common femoral nerve and why?	
POINTS REQUIRED	<ol style="list-style-type: none"> <li>foot drop – loss of innervation of extensor muscle function ( tib Ant, ext dig long, peroneus tertius, EHL)</li> <li>high stepping gait</li> </ol>	3/4
	2. inability to evert foot - peroneus longus and brevis lost ( sup peroneal nerve)	1/2
	<ol style="list-style-type: none"> <li>sensory loss : cleft of first toe sup peroneal N. lower lateral part leg &amp; dorsum of foot deep peroneal – 1<sup>st</sup> web space</li> </ol>	
PROMPTS		

ACEM 2005.2 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC Discussion:Post. Compartment leg, Achilles attachments NUMBER: 3.5 \_

OPENING QUESTION	List the muscles in the posterior compartment of the leg/calf	COMMENTS * Essential
POINTS REQUIRED	Superficial group Gastrocnemius (lateral and medial heads) Plantaris Soleus Deep group Flexor digitorum longus Flexor hallucis longus Tibialis posterior	* 2 from each group
SECOND QUESTION (if needed)	Describe the origin and attachments of gastrocnemius and soleus	
POINTS REQUIRED	<u>Gastrocnemius</u> - Lat head from lat surface of lat fem condyle* (from smooth pit above that of popliteus). - Med head from back of med condyle* and popliteal surface of femoral shaft Broad bellies of mm insert into dense aponeurosis on their ant surfaces, bearing on soleus mm This aponeurosis blends with that of soleus to form tendo calcaneus Tendo calcaneus inserts into smooth transverse area on middle third of post surface of calcaneus*. <u>Soleus</u> Upper quarter of back of fibula including head, fibrous arch* (over pop vessels and tibial nn) in continuity to soleal line of tibia and middle third of post border of tibia. Post. (superficial) lamella is continued at its lower end into tendo calcaneus. The mm fibres of soleus are received into deep surface of tendo calcaneus* down to within a short distance of calcaneus.	*essential  Broad upper attachment with fibrous arch AND insertion into tendo calcaneus essential
THIRD QUESTION	What is the nerve supply to this group of muscles ?	
	Tibial nerve* (S 1,2)	*essential

**ACEM 2006.1 PRIMARY VIVA EXAMINATION**

**SUBJECT: ANATOMY**

**TOPIC:** photo of the posterior thigh – sciatic nerve \_\_\_\_\_ **NUMBER:** \_\_\_\_\_ Th Q4 *Pn*

OPENING QUESTION		COMMENTS
	This is a photograph of the back of the right thigh. This is the medial aspect. This is the lateral aspect. Could you name the numbered muscular structures?	
POINTS REQUIRED	1 Adductor gracilis (2)	Possible
	2 Semitendinosus (3)	Must know
	3 Semimembranosus (4)	Must know
	4 Long head Biceps (5)	Must know
	5 Short head biceps (14)	Must Know
	6 Quadratus femoris (9)	Possible
	7 Ilio-tibial band (13)	Possible
	8. Gluteus maximus (10)	Should know
	9. Adductor magnus (19)	Possible
		6 of 9 to pass
PROMPTS	Perhaps questions of orientation. Tell me what you can see	

**Primary Examination 2006.2 ANATOMY VIVA**

**Thur 14<sup>th</sup> September Afternoon Session**

Topic	Questions	Points required
1. Bone – foot Tendon insertions of mm. post & lat compartments lower leg	1. Pls demonstrate the insertions of the muscles of the post. compartment of the leg	1. Sup. - gastrocs, soleus – tendo calcaneus – to middle 1/3 of post surface calcaneus (2. Sup – plantaris – calc med to tendo calcaneus) 3. Deep – FDL – sup. to FHL & TP, crosses sole obliquely, inserts by 4 slips into bases distal phalanges 4. Deep – FHL – thru flex retinac, grooves post process talus & inf surface sustentaculum tali, to base of distal phalanx gt toe 5. Deep – TP – tendon grooves back of med mall, passes above med side susten tali, inserts into tuber. of navicul.
	2. Pls demonstrate the insertions of the mm of the lat. compartment of the leg	1. Peroneus longus – behind lat mall (behind peron br), below peroneal trochlea (lat surface calc), lies against post. ridge of cuboid, inserts into base 1 <sup>st</sup> metatarsal & med cuneiform 2. Peroneus brevis – behind lat mall (in front of per long), above peroneal trochlea, ins base 5 <sup>th</sup> metatarsal

Question 3: Bone: Tibia	Describe the features of the proximal end of this bone  Prompt "Demonstrate the attachments of the menisci and cruciate ligaments."	Meniscal attachments Anterior and posterior cruciate attachments Capsular margin Tibial tuberosity Median and lateral condyles Tibiofibular joint	At least 4 bony features to pass
Question 2: (Day 1 pm session) Bone : Tibia and Fibula	1. Describe the proximal Tibiofibular joint (Tibia and fibula put together for candidates)  2. What structures can be damaged by direct trauma to the region of the proximal fibula?  3. Describe the consequences of injury to the Common peroneal nerve?	1. Identify proximal fibula and articular area of fibula and tibia Synovial joint, separate to knee joint, minimal movement possible  2 & 3 <b>Lateral collateral ligament</b> <b>Biceps femoris tendon</b> <b>Common peroneal nerve</b>  Superficial fibular nerve – weakness of ankle eversion (and slight reduction in plantar flexion), sensory loss over lateral aspect of leg , reduced sensation over posterior aspect of leg and lateral aspect of foot ((Lateral) Sural nerve) Deep Fibular nerve (Anterior tibial) – weakness of ankle dorsiflexion (T.Anterior), sensory loss dorsum of foot and first interdigital cleft Injury to fibularis (peroneus) longus and brevis muscles– weakness of ankle eversion.	Pass 1 – Correctly identify joint surfaces, note that separate to knee joint and that no movement possible  2 To pass Common peroneal Nv and one other  3 Loss of dorsiflexion and eversion to pass

Describe the superficial boundaries of the popliteal fossa	Superiorly: biceps femoris 1, semitendinosus 14 and semimembranosus 13 Inferiorly : lat 5 and med 6 heads of gastrocnemius Popliteal vessels 10&11 Small saphenous vein 15 Tibial 19 & common fibular 2 nerves Lymph nodes and lymphatics	To pass – biceps, one of the semis, both heads of gastrocnemius
Using this photo demonstrate the contents?	Superficial fibular nerve lateral compartment Antero lat leg and foot Deep fibular nerve ant comp and dorsum foot Skin b/w great & 2nd toe	To pass – Common fibular nerve, Tibial nerve, Popliteal artery and vein
What is the distribution and supply of the common fibular nerve/		To pass – weakness of dorsiflexion and inversion

QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Name the bones of the foot Which of these constitute the medial longitudinal arch	<ul style="list-style-type: none"> <li><b>Medial</b> – calcaneus, talus, navicular, 3 cuneiforms, 3 metatarsals</li> </ul>	Name all the bones with prompt if necessary Name major bone groups for med arch
What are the major factors contributing to the stability of the bony arches of the foot	<p><b>Passive</b></p> <ul style="list-style-type: none"> <li><b>Bony</b> – shape of united bones Talus is the “keystone”</li> <li><b>Fibrous</b> (ligamentous)                             <ul style="list-style-type: none"> <li>Plantar calcaneonavicular (Spring) lig</li> <li>Plantar calcaneocuboid (short plantar) lig</li> <li>Long plantar ligament</li> <li>Plantar aponeurosis</li> </ul> </li> </ul> <p><b>Dynamic</b></p> <ul style="list-style-type: none"> <li>Intrinsic muscles</li> <li><b>Long tendons</b> <ul style="list-style-type: none"> <li>Flexor Hallucis &amp; FDL – longitudinal arch</li> <li>Fibularis longus and Tib Post</li> </ul> </li> </ul>	Bold plus three lig and three tendons to pass
What is the function of the longitudinal arches of the foot	<ul style="list-style-type: none"> <li>Shock absorbtion</li> <li>Distribute bodyweight over the pedal platform</li> <li>Act as springboards when walking, running and jumping</li> </ul>	2/3 to pass

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE
Question 1:	<p>a. Identify and describe the fibularis muscles</p> <p>b. What nerves supply these muscles</p>	<p><b>Fibularis (Peroneus) Longus (lat comp) (18)</b> Head and upper shaft of fibula - passes deep to sup fibular retinaculum, post to lat malleolus then through separate compartment deep to inferior fibular retinaculum. Then passes inf to the fibular trochlea of the calcaneus, through groove on ant inf aspect of cuboid – crosses sole of the foot to insert on the base of the 1<sup>st</sup> MT and medial cuneiform</p> <p><b>Fibularis (Peroneus) Brevis (lat comp) (17)</b> Distal shaft of fibula deep to PT. Post to lat malleolus deep to FL tendon. Passes sup to fibular trochlea of calcaneum. Inserts on base of 5<sup>th</sup> MT</p> <p><b>Fibularis (Peroneus) Tertius (ant compartment) (14)</b> Slip of muscle from EDL Passes ant to lat malleolus inserts on base of 5<sup>th</sup> MT</p> <p><b>Nerve supply</b> <b>FL and FB supplied by superficial Fibular (peroneal) nerve</b> FT supplied by Deep Fibular (Peroneal) nerve</p>
Question 2:	What are the actions of the fibular muscles	<p><b>Evertors of foot</b> <b>Stabilise foot</b> in ‘toe-off’ phase of walking / running <b>FL &amp; FB – weak plantar flexors</b> because they run post to t/v axis of ankle joint FL – contributes dynamic stability tot the transverse arch of the foot FT – weak dorsiflexor</p>
Question 3:	What joints are involved in inversion and eversion of the foot	<ul style="list-style-type: none"> <li><b>Subtalar (talocalcaneal) joint</b></li> <li>Transverse tarsal joint (<b>calcaneocuboid and talonavicular joint</b>)</li> </ul>

TOPIC: Femoral Nerve \_\_\_\_\_ NUMBER: 2.5 \_\_\_\_\_

OPENING QUESTION	What are the borders & contents of the femoral nerve?	COMMENTS
POINTS REQUIRED	1 Boundaries: Sartorius, Adductor Longus, Inguinal ligaments	
	2 Floor: Iliacus, Psoas, Pectineus, Adductor Brevis	
	3 Contents: Femoral Nerve, Artery, Veins	
PROMPTS		
SECOND QUESTION (if needed)	What are the branches of the femoral nerve?	
POINTS REQUIRED	1 Nerve to sartorius	
	2 Medial Femoral Cutaneous nerve	
	3 Intermediate femoral cutaneous nerve	
	4 Nerve to Rectus Femoris	
	5 Nerve to vastus medius	
	6 Nerve to Vastus Lateralis	
	7 Nerve to vastus intermedius	
	8 Saphenous nerve	
PROMPTS		

What does the femoral nerve supply?

Musc- ant thigh esp quadriceps  
 Artic- hip & knee. Sens- antmed thigh.  
 Continues as saphenous nerve to supply antmed  
 knee, leg, foot.

Quads ar  
 thigh to j

SECOND QUESTION	Describe the origin and course of the sciatic nerve.	
POINTS REQUIRED	1 L4,5,S1,2,3* from the triangular sacral plexus form from the ant divs of these nn to eventually be the tibial portion of the sciatic while the peroneal portion comes from post divs of L4,5, S1,2	4/7 to pass
	2 They join in pelvis, and exit under piriformis* (line b/w PSIS & tip of coccyx) thru gr sciatic notch*	
	3 lies on ischium over post acetabulum*, next to bone b/w isch tuber & PSIS	
	4 under glut max* in buttock b/w gr troch & isch tuberosity	
	5 vert down with hamstrings*	
	6 upper popliteal fossa* > tibial & peroneal nn.	
PROMPTS		

### ACEM 2006.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Femoral nerve and myotomes \_\_\_\_\_ NUMBER: \_\_\_\_\_ Fri 5

OPENING QUESTION	Could you outline the lower limb myotomes?	COMMENTS
POINTS REQUIRED	1 L2 & 3 Hip flexors & Adductors	
	2 L3 & 4 Knee extensors & Hip Abductors	
	3 L4 & 5 Hip extensors	
	3 L5 & S1 Knee flexors	
	4 L4 & 5 Ankle and long dorsi flexors	
	5 S1 & 2 Plantar flexors	
	6 Eversion L5 & S1	
	7 Inversion L4	5 of 7 to pass
PROMPTS	What is the innervation of the muscles of the ..... etc?	

ACEM 2007.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: sciatic nerve \_\_\_\_\_ NUMBER: \_\_\_\_\_

<b>SECOND QUESTION</b> (if needed)	Can you identify the sciatic nerve and the course of the sciatic nerve in the thigh?	
<b>POINTS REQUIRED</b>	1 Appropriate identification of the sciatic nerve	Must know
	2 Enters by passing deep to piriformis, usually.	Could know
	3 Enters the upper thigh deep to the hamstrings	Could know
	4 After biceps overarches the nerve the, nerve lies deeply between semimembranosus and biceps	Should know
	5 Divides into peroneal and tibial nerves about 5 cm above the knee joint	Should know
	6 Giving off muscular branches to hamstrings	Must know
<b>PROMPTS</b>		Identify nerve on image & identify 3 of 5 to pass

<b>SECOND QUESTION</b> (if needed)	Describe the branches and course of the femoral artery.	
<b>POINTS REQUIRED</b>	1 4 superficial branches in fem triangle (superf epig, superf cx iliac, superf and deep pudendal)	The 3 general points to pass
	2 Profunda femoris ("deep artery of thigh") branches off post-lat in triangle to supply thigh, passes behind add longus. Gives med and lat cx fem arteries. Med cx fem supplies NOF	
	3 Fem artery continues down thigh deep to Sartorius and pass through adductor canal and becomes popliteal art at adductor hiatus	
<b>PROMPTS</b>		
<b>THIRD QUESTION</b> (if needed)		
<b>POINTS REQUIRED</b>	1	

OPENING QUESTION	What structures are visible in this buttock dissection?	COMMENTS
<b>POINTS REQUIRED</b>	1 sciatic nerve (23)	mandatory
	2 piriformis (15)	mandatory
	3 gamelli sup (20) and inf (6)	
	4 post cutaneous nerve of the thigh (16)	
	5 gluteus medius (2)	6 to pass
	6 any other	
<b>PROMPTS</b>	Identify the sciatic nerve and piriformis	
<b>SECOND QUESTION</b> (if needed)	Describe the course of the sciatic nerve in the thigh	
<b>POINTS REQUIRED</b>	1 Leaves gluteal region at midpoint of greater trochanter and ischeal tuberosity	2/4 to pass
	2 Passes deep to long head of biceps	
	3 Lies on adductor Magnus	
	4 Generally divides in lower third (12% common fibular branch passes thru piriformis), often divides early	
<b>PROMPTS</b>	Where does it divide and into what	
<b>THIRD QUESTION</b> (if needed)	Describe its motor distribution in the thigh	
<b>POINTS REQUIRED</b>	1 tibial branch – hamstrings and part of adductor Magnus	Pass if say generic hamstrings

<b>BONUS QUESTION</b>	<b>Describe the course and branches of the tibial nerve in the leg</b>	
	Tibial nn is the continuation of the sciatic nn (after it divides into tibial and common peroneal)	

<p>Runs vertically down middle of pop fossa          Passes deeply between heads of gastrocnemius          Runs with pop vessels beneath fibrous arch of origin of soleus.          Enters calf below this fibrous arch          Gives motor branches to all mm that arise in pop fossa</p> <ul style="list-style-type: none"> <li>Plantaris</li> <li>Both heads of gastroc</li> <li>Soleus</li> <li>Popliteus</li> </ul> <p>Branch to popliteus hooks around lower border of popliteus to enter its deep (tibial) surface.          Has only 1 cutaneous branch ;sural nn          Runs vertically down between 2 heads of gastroc          Pierces deep fascia halfway down calf (replaces post cutaneous nn of thigh)          In superficial fat it joins sural communicating nn and lies close to small saphenous vv.          Nerve is lateral to vein          3 articular branches ; genicular nerves which accompany sup,inf and medial genicular aa.          Tibial n runs straight down middle of calf, deep to soleus          Post tib aa is at first lat to it. The aa then passes ant to it and continues down on medial side of nn          Nerve ends under middle of flexor retinaculum by dividing into medial and lateral plantar nn          Surface marking is middle of pop fossa to midway between med malleolus and tendo calcaneus          Gives branches to ; Those listed above</p> <ul style="list-style-type: none"> <li>Flex dig longus</li> <li>Flex hall longus</li> <li>Tib post</li> </ul> <p>Med calcaneal nns (pierce flex ret to supply skin of heel)</p>	
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<b>SECOND QUESTION</b>	<b>Please describe the course of the femoral artery from the inguinal ligament to the popliteal fossa</b>	
<b>POINTS REQUIRED</b>	1 Art enters thigh at midinguinal point* (mid b/w ASIS & pubic symp on psoas tendon overlying capsule of hip jt)	*essential
	2 Runs deep to sartorius at lower end of triangle*	
	3 Enters adductor canal*	
	4 Anterior to femoral vein (post to saphenous nerve)	
	5 Passes into popliteal fossa through adductor hiatus* in adductor magnus	
<b>PROMPT</b>	<b>At which point does it enter the thigh?</b>	
<b>PROMPTS</b>	<b>Please name the branches of femoral artery in the femoral triangle.</b>	
	Superficial cutaneous branches: Superficial circumflex iliac Superficial epigastric Superficial external pudendal Deep external pudendal Profunda femoris	Mention existence of cutaneous branches and name profunda
<b>PROMPTS</b>		

<b>SECOND QUESTION (if needed)</b>	Describe the surface markings of the Fem Artery in the femoral triangle	
<b>POINTS REQUIRED</b>	1 Mid Inguinal point	
	2 mid way between Pub symphysis and ASIS	All correct to pass
	3 exits distally under sartorius	
	4	
	5	
	6	
<b>PROMPTS</b>		
<b>THIRD QUESTION (if needed)</b>	Describe the anastomoses associated with the femoral artery	
<b>POINTS REQUIRED</b>	1 trochanteric (head of femur) via med and lat fem c-flex	
	2 cruciate (lessr trochanter) as above with inf glut atr	
	3 geniculate (popl fem and tibial arts)	Extra detail
	4	



TOPIC: Ankle \_\_\_\_\_ NUMBER: 1.4

OPENING QUESTION		COMMENTS
	Commencing with its origin in the foot, describe the course and relations of the long saphenous vein	
POINTS REQUIRED	1 commences at medial side of dorsal venous arch	Require course
	2 course upward in front of medial malleolus	
	3 crosses to behind medial border of tibia and pass behind knee ( 1 handsbreadth behind medial border patella)	
	4 spirals forward across medial aspect thigh to pass through cribriform fascia and join femoral vein	
	5 perforating veins connect LSV and deep system - below med malleolus, 10cm above med malleolus mid calf knee mid thigh	
	6 LSV accompanied by saphenous nerve	Accompanying nerve
	7 valves along course (optional)	
PROMPTS		
SECOND QUESTION (if needed)	What functional deficit results from a tibial nerve injury at the knee and explain why	
POINTS REQUIRED	1 Unable to stand on tiptoes (calf flexors lost) – soleus, TP, FDL, FHL	
	2 Sensory loss – Medial Calcaneal, medial and lateral plantar nerves – loss of sensation over leg and sole of foot	
	3 intrinsic muscles of foot lost – medial & lateral plantar nerves	

TOPIC 5		COMMENTS
QUESTIONS AND POINTS REQUIRED	Demonstrate / describe the sensory innervation of the foot.	Saphenous – medial dorsum to base of big toe, Superficial peroneal – dorsum, Deep peroneal – 1 <sup>st</sup> web space, sural – lateral, Medial and lateral plantar nerves on the sole, Medial calcaneal – heel. 5/7 to pass.
	Demonstrate the dermatomes below the knee.	4,5, S1, S2 First 3 correct to pass

TOPIC: Great Toe \_\_\_\_\_ NUMBER: 2-4 \_\_\_\_\_

OPENING QUESTION		COMMENTS
	What nerves are responsible for sensation of the great toe?	
POINTS REQUIRED	1 Deep peroneal in the web	3 to pass
	2 superficial peroneal on the dorsum	
	3 medial plantar on the bottom	
	4 sometimes some saphenous on medial side at the MTP	
	5	
	6	
	7	
PROMPTS		
SECOND QUESTION (if needed)	What roots?	Pass
POINTS REQUIRED	1 L5	
	2	
	3	
	4	
	5	
	6	
PROMPTS		
THIRD QUESTION (if needed)	What myotomes govern movement of great toe?	Both to pass
POINTS REQUIRED	1 5,1 extension	
	2 1,2 for plantar flexion	
	3	
	4	
PROMPTS	Legitimate	

OPENING QUESTION		COMMENTS
POINTS REQUIRED	Describe the dermatomes of the lower limb	needed
	1 indicate (on self) L1,2,3,4,5 winding around leg	
	2 S1 S2 back of leg s1 becomes lateral foot, L5 medial foot	
	3 axial line down postero medial aspect of leg	
	5	
PROMPTS		
SECOND QUESTION (if needed)	Please describe the cutaneous nerves of the lower limb	5 facts in total to pass
POINTS REQUIRED	1 lateral cutaneous nerve of thigh L2,3 anterior cutaneous branch of femoral nerve L2-4 Intermediate and medial femoral cut nerves Ilio-inguinal Obturator Posterior cutaneous S1-3 Most of thigh	
	2 saphenous nerve ( from femoral) L3,4 (antero medial leg) lateral sural cutaneous n and sural (postero lateral leg)	
	3 fibula (peroneal) nerves anterolateral leg and dorsum of foot	
	4 calcaneal branches of tibial and sural nerves lateral and medial plantar nerve from tibial (sole )	
	5 deep fibular (deep peroneal) nerve L5 in first web space	

Question 5:  Discussion: Common fibularis (common fibular n/common peroneal n)	<p>a. Outline the course of the common fibular nerve and its main branches.</p> <p>b. What does it supply? (Motor and sensory)</p>	<p>Origin: from sciatic n as it bifurcates in apex pop fossa Passes over post head of fib and then winds around neck of fib</p> <p>Divides into sup and deep fib n, also br to knee jt.</p> <p>Common- supplies skin posterolat leg</p> <p>Superficial br -motor supply to lateral compartment, and sensory supply distal 1/3 ant leg and foot</p> <p>Deep branch motor to ant mm of leg and dorsum of foot, and Sensory to 1<sup>st</sup> web space foot.</p>	<p>For a pass: Origin, Fib head, Main branches, Motor and sens supply</p>
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<p>Question 4</p> <p>Photo: Gluteal Area</p>	<p>a) This is a photograph of the gluteal region. Identify the structures.</p> <p>Prompt if needed – what is this (Sciatic Nerve)</p>	<p>15-Piriformis          Sciatic N: 23-Tibialpart:              1-Common Fibular (Peroneal) part          2-Gluteus maximus;          16-Post Fem Cutaneous N          13-Obturator Externus          18-Quadratus femoris          7-Inferior gluteal art.          17-Pudental N;          9-Internal Pudental art;          11-N to Obturator Internus          20-Superior Gemellus;          14-Obturator Internus          6-Inferior Gemellus          21-; 22-; 8-Inferior gluteal N          3-Gluteus medius;          4-Gluteus minimus          5-Greater Trochanter Femur          19-Sacroteruberous Lig          10-Ischael Tuberosity</p>	<p>2 Bold plus 2 others to pass</p>
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TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
<p>Question 4 cont'd</p> <p>Photo: Gluteal Area</p>	<p>b) Describe the course of the Sciatic Nerve, and the muscles it supplies.</p>	<p>Enters gluteal region via greater sciatic foramen inferior to piriformis and deep to gluteus maximus; descends in midline posterior thigh deep to biceps femoris; bifurcates into tibial and common fibula (peroneal) nerves at apex of popliteal fossa</p> <p>No supply in gluteal region.          Supplies all muscles of posterior compartment of thigh (common fibula short head biceps, tibial division all the rest)</p>	<p>Bold to pass</p>
<p>Question 5: Discussion</p>	<p>Describe the superficial venous drainage of the lower limb</p>	<p>Dorsal v arch of foot drain to GSV, ascends ant to MM, then behind med fem condyle (hand breadth post to patella), then up med thigh through fascia lata in saph opening into fem V.</p> <p>Numerous valves, perforators to deep system and anastomoses with SSV.</p> <p>Laterally, Small SV arises from dorsal venous arch, ascends behind LM, lateral to Achilles, penetrates fascia at mid-line, between heads of gastroc to join popliteal vein</p>	<p>1. Identify MM, fem condyle and saph opening landmarks of GSV</p> <p>2. Name SSV and general location</p> <p>3. Identify connection with deep system via perforators</p>