

Section 1

Lower Limbs mcqs

- 1) Tensor fasciae latae is supplied by :
 - a) anterior division of femoral nerve
 - b) superior gluteal nerve
 - c) nerve to vastus lateralis
 - d) inferior gluteal nerve
 - e) lateral femoral cutaneous nerve

- 2) Which structure is intrasynovial at the knee joint:
 - a) oblique popliteal ligament
 - b) tendon of popliteus
 - c) medial and lateral menisci
 - d) anterior cruciate ligament
 - e) none of the above

- 3) The 'screw-home' movement in extension of the knee joint begins with tightening of the:
 - a) anterior cruciate ligament
 - b) oblique popliteal ligament
 - c) medial collateral ligament
 - d) lateral collateral ligament
 - e) posterior cruciate ligament

- 4) Tibialis anterior:
 - a) is supplied by the tibial nerve
 - b) inserts into the second metatarsal bone
 - c) is pierced by the posterior tibial artery
 - d) tendon perforates the superior extensor retinaculum
 - e) does not arise from the interosseous membrane

- 5) The adductor canal:
 - a) contains the femoral artery and nerve
 - b) ends distally in the adductor longus hiatus
 - c) contains no muscular nerves
 - d) has adductor longus forming the roof
 - e) always has the femoral artery lying between the saphenous nerve and the femoral vein

- 6) The great saphenous vein:
 - a) joins the femoral vein above the inguinal ligament
 - b) begins as the upward continuation of the lateral marginal vein of the foot
 - c) travels with the saphenous nerve along its course
 - d) runs behind the medial malleolus
 - e) enters the femoral vein on its anteromedial side

- 7) Regarding the femoral artery:
- adductor magnus lies between it and the profunda femoris artery
 - the profunda femoris vein lies behind the profunda femoris artery
 - profunda femoris artery arises from its posterior surface
 - the lateral circumflex femoral artery separates the superficial and deep branches of the femoral nerve
 - the femoral vein is always on its medial side
- 8) Gluteus maximus:
- forms the gluteal fold
 - has four bursae beneath it
 - has blood supply solely from the inferior gluteal artery
 - is the chief control of hip flexion
 - has 50% of fibres inserting into the gluteal tuberosity
- 9) Regarding the adductor compartment:
- adductor magnus lies between the anterior and posterior divisions of the obturator nerve
 - adductor longus inserts into the upper two thirds of the linear aspect of the femur
 - the hamstring part of adductor magnus is supplied by the tibial part of the sciatic nerve
 - the medial intermuscular septum separates the adductor compartment from the posterior compartment
 - obturator externus medially rotates the hip
- 10) Which vessel is NOT involved in the trochanteric anastomosis?
- superior gluteal artery
 - obturator artery
 - lateral circumflex femoral artery
 - medial circumflex femoral artery
 - inferior gluteal artery
- 11) The sciatic nerve:
- lies deep to the posterior femoral cutaneous nerve
 - passes down over obturator internus, quadratus, femoris and piriformis
 - tibial and common peroneal components separate behind the hip joint
 - in the buttock it lies midway between the greater trochanter and pubic tuberosity
 - is derived from L3, 4, 5, S1, 2
- 12) Which is the odd one out?
- sciatic nerve
 - nerve to obturator internus
 - superior gluteal nerve
 - pudendal nerve
 - posterior femoral cutaneous nerve
- 13) Regarding the hamstring compartment:
- the cutaneous nerve supply is from the posterior circumflex femoral nerve
 - ischial fibres of adductor magnus degenerate to form the tibial collateral ligament
 - semitendinosus lies deep to semimembranosus
 - the oblique popliteal ligament is an expansion of biceps femoris
 - the long head of biceps arises from the lateral facet of the ischial tuberosity

- 14) Regarding the popliteal vessels:
- the tibial nerve lies between the popliteal artery and vein
 - the sural arteries supply soleus
 - the middle genicular artery supplies the cruciate ligaments
 - lymph nodes lie alongside the popliteal artery
 - the popliteal artery enters the fossa on the lateral side of the femur
- 15) At the knee joint:
- the fibular collateral ligament is attached to the lateral meniscus and joint capsule
 - there are three main gaps in the joint capsule
 - the tibial collateral ligament is tight in flexion
 - the posterior cruciate ligament is attached to the lateral condyle of the femur
 - the cruciate ligaments are sensitive and the menisci are not
- 16) Regarding nerve supply of the lower limb:
- superficial peroneal nerve supplies the muscles in the anterior compartment of the leg
 - the cruciate ligaments are supplied by the tibial nerve
 - the obturator nerve supplies obturator internus muscle
 - the sciatic nerve does not make contact with bone
 - the tibial part of the sciatic nerve is the sole supply to muscles in the hamstring compartment
- 17) Regarding flexor digitorum longus:
- its four tendons divide under the flexor retinaculum
 - it arises from the tibia and interosseous membrane only
 - the medial two tendons receive a strong slip from the tendon of flexor hallucis longus
 - the tendons have no flexor sheaths
 - it inserts into the bases of the middle phalanges
- 18) The following are branches of the femoral artery except:
- superficial circumflex iliac artery
 - superficial epigastric artery
 - superficial external pudendal artery
 - deep external pudendal artery
 - middle genicular artery
- 19) The following cutaneous nerves of the thigh are derived in part from the second lumbar nerve except::
- ilioinguinal
 - medial femoral cutaneous nerve
 - obturator nerve
 - lateral femoral cutaneous nerve
 - genitofemoral nerve
- 20) Which of the following, regarding the great saphenous vein, is INCORRECT?
- it is the longest vein in the body
 - it passes behind the medial malleolus
 - at the knee, it lies a hand's breadth behind the medial border of the patella
 - the saphenous opening lies about 3cm below and lateral to the pubic tubercle
 - the deep external pudendal artery runs medially behind the saphenous vein near its termination

- 21) Which of the following is CORRECT regarding lymphatic drainage of the lower limb?
- a) the superficial inguinal node group consists of about 15 nodes
 - b) the lateral nodes of the proximal superficial group receive lymph from the buttock, flank and back below the waist
 - c) the medial nodes of proximal superficial group receive lymph from testes, glans penis, lower anal canal and perineum
 - d) the distal nodes of the superficial group receive all the superficial lymphatics of the lower limb
 - e) the superficial inguinal nodes drain mainly to the internal iliac nodes
- 22) Fascia lata is not:
- a) attached inferiorly to the tibial condyles and head of the fibula
 - b) reinforced anteriorly by expansions from the quadriceps tendon
 - c) attached to Scarpa's fascia above the inguinal ligament
 - d) continuous below the popliteal fossa into the deep fascia of the calf
 - e) attached superiorly along the external lip of the iliac crest
- 23) The iliotibial tract:
- a) lies lateral to tensor fascia latae
 - b) inserts onto the head of the fibula
 - c) is the origin of 60% of gluteus maximus
 - d) is a weak flexor of the knee via tensor fascia latae
 - e) is attached superiorly to the iliac crest
- 24) Which of the following muscles is not found in the floor of the femoral triangle?
- a) iliacus
 - b) psoas
 - c) pectineus
 - d) adductor magnus
 - e) adductor longus
- 25) Which of the following is not found within the femoral sheath?
- a) femoral artery
 - b) femoral canal
 - c) femoral hernia
 - d) femoral nerve
 - e) lymph node of Cloquet
- 26) The profunda femoris artery does not:
- a) normally supply all the thigh muscles
 - b) arise from the lateral side of the femoral artery, 3-4cm distal to the inguinal ligament
 - c) give off the deep external pudendal artery
 - d) lie behind the profunda vein
 - e) lie directly anterior to adductor brevis and magnus

- 27) Which of the following is INCORRECT regarding the femoral nerve?
- is formed from the anterior divisions of the anterior rami of the lumbar nerves 2, 3 and 4
 - supplies iliacus in the abdomen
 - lies in the iliac fossa between psoas and iliacus
 - gives a branch to pectineus as it enters the femoral triangle
 - divides into several branches just distal to the inguinal ligament
- 28) All the following are branches of the femoral nerve except:
- medial femoral cutaneous nerve
 - saphenous nerve
 - nerve to vastus medialis
 - lateral femoral cutaneous nerve
 - nerve to sartorius
- 29) Which factor is most important in preventing lateral displacement of the patella during quadriceps contraction?
- the forward prominence of the lateral condyle of the femur
 - the action of articularis genu
 - the action of vastus medialis
 - the action of rectus femoris
 - the tension of the medial patellar retinaculum
- 30) The adductor canal is not:
- roofed by fascia containing the subsartorial plexus
 - occupied by the sciatic nerve
 - also known as Hunter's canal
 - occupied by the femoral artery
 - a gutter shaped groove between vastus medialis and the front of the adductor muscles
- 31) Which of the following is INCORRECT regarding the adductor canal?
- sartorius lies on the fascial roof
 - in the distal part of the canal, the femoral vein is posterolateral to the artery
 - at all levels, the artery lies between saphenous nerve and femoral vein
 - the subsartorial plexus supplies overlying fascia lata and an area of skin above medial side of the knee
 - the adductors in the floor of the canal are the adductor brevis above and the adductor longus below
- 32) In the medial compartment of the thigh:
- adductor magnus consists of adductor and hamstring muscle masses
 - the contents are separated from the posterior compartment by the posterior intermuscular septum
 - adductor longus is the most superficial muscle of the medial side of the thigh
 - the anterior division of the obturator nerve passes through obturator externus
 - the posterior division of the obturator nerve is the prime motor supply
- 33) With respect to the posterior compartment of the thigh:
- blood supply is mainly from the femoral artery
 - the sciatic nerve lies lateral to the long head of biceps
 - the long head of biceps is supplied by the common peroneal nerve
 - the hamstrings form the apex of the popliteal fossa
 - semimembranosus arises in common with the long head of biceps

- 34) Slipped upper femoral epiphysis:
- is more common in girls than boys
 - usually occurs in the 5-8 year age group
 - may present as referred pain in the knee
 - the limb may be internally rotated and shortened
 - can be treated conservatively
- 35) Dermatomes of lower limb:
- S1 supplies the great toe
 - L2 supplies anterior upper thigh
 - S3 supplies perianal area
 - L4 supplies medial thigh
 - L5 supplies medial calf
- 36) Muscles in the floor of the femoral triangle include all EXCEPT:
- adductor magnus
 - pectineus
 - psoas
 - ilacus
 - adductor longus
- 37) Patellar plexus comprises of all EXCEPT:
- posterior branch of lateral femoral cutaneous nerve
 - infrapatella branch of saphenous nerve
 - medial femoral cutaneous nerve
 - anterior branch of lateral femoral cutaneous nerve
 - intermediate femoral cutaneous nerve
- 38) The most medial structure passing under the inferior extensor retinaculum of the foot is:
- deep peroneal nerve
 - tibialis anterior
 - extensor hallucis longus
 - anterior tibial artery
 - peroneus brevis

Lower Limb - Answers

1	B	14	C	27	A
2	E	15	E	28	D
3	A	16	B	29	C
4	D	17	C	30	B
5	E	18	E	31	E
6	E	19	A	32	A
7	D	20	B	33	D
8	D	21	B	34	C
9	C	22	C	35	B
10	B	23	E	36	A
11	A	24	D	37	A
12	C	25	D	38	B
13	B	26	C		

Section 2

Lower Limbs

- 1) Cutaneous nerve supply of the thigh involves all but which of the following:
 - a) the intermediate femoral cutaneous nerve
 - b) the obturator nerve
 - c) the genital branch of the genitofemoral nerve
 - d) the ilioinguinal nerve
 - e) the posterior cutaneous nerves of the thigh

- 2) The patellar plexus takes twigs from all but which of the following?
 - a) infrapatellar branch of the common peroneal nerve
 - b) medial femoral cutaneous nerve
 - c) lateral femoral cutaneous nerve
 - d) intermediate femoral cutaneous nerve
 - e) infrapatellar branch of the saphenous nerve

- 3) The inferior gluteal nerve supplies:
 - a) gluteus maximus
 - b) gluteus medius
 - c) gluteus minimus
 - d) all of the above
 - e) none of the above

- 4) Within the buttock:
 - a) the pudendal nerve emerges beneath piriformis, turns around the back of the sacrospinous ligament and passes between the sacrotuberous and sacrospinous ligaments
 - b) the internal pudendal artery can be compressed against the base of the ischial tuberosity
 - c) the sciatic nerve (L4, 5, S1) emerges from below piriformis muscle more laterally than the inferior gluteal and pudendal nerves and vessels
 - d) the posterior femoral cutaneous nerve lies medially to the sciatic nerve
 - e) the cruciate anastomosis provides the main source of blood for the supply of the head of femur

- 5) With respect to the ligaments around the knee joint:
 - a) the fibular collateral ligament blends with the capsule and is attached to the lateral meniscus
 - b) the tibial collateral ligament blends posteriorly with the capsule and is attached to the medial meniscus
 - c) the oblique popliteal ligament is an expansion from the tendon of semitendinosus that blends with the capsule posteriorly
 - d) the posterior cruciate ligament runs from anterior tibial plateau to the posteromedial aspect of the lateral femoral condyle
 - e) the transverse ligament runs posteriorly between menisci

- 6) With respect to the posterior compartment of the leg, which is FALSE?
 - a) plantaris arises from the lower part of the lateral supracondylar line and is absent in 10%
 - b) the medial head of gastrocnemius is larger than the lateral
 - c) the small saphenous vein drains the medial side of the dorsal venous arch and medial margin of the foot
 - d) the soleal muscle contains a rich plexus of small veins → the soleal pump
 - e) the nerve of this compartment is the tibial nerve

- 7) The myotome for plantar flexion of the great toe is:
- a) L3, 4
 - b) L4, 5
 - c) L5, S1
 - d) S1, 2
 - e) S2, 3
- 8) With respect to the hip bone:
- a) the pelvic rim is formed by the iliac crest, top curricular area and pectineal line
 - b) the iliofemoral ligament and sartorius are attached to/at (??) the anterosuperior iliac spine
 - c) the iliopubic eminence on anterior margin of acetabulum joins the ischium and pubic bone
 - d) the tubercle of the iliac crest lies 7.5cm behind the anterosuperior iliac spine
 - e) the line between the highest point of the iliac crest passes through the spine of ??????
- 9) Which of the following structures is NOT found in the adductor (subsartorial) canal?
- a) femoral artery
 - b) femoral vein
 - c) femoral nerve
 - d) saphenous nerve
 - e) nerve to vastus medialis
- 10) The surface markings of the sciatic nerve are from:
- a) the ischial tuberosity to the adductor tubercle of the medial femoral condyle
 - b) the posterior superior iliac spine to the apex of the popliteal fossa
 - c) the midpoint of a line between the ischial tuberosity and the greater trochanter to the adductor tubercle of the medial femoral condyle
 - d) the ischial tuberosity to the apex of the popliteal fossa
 - e) the midpoint of a line between ischial tuberosity and greater trochanter to apex of the popliteal fossa
- 11) The femoral canal:
- a) is the lateral compartment of the femoral sheath
 - b) lies medial to the pubic tubercle
 - c) contains the femoral nerve
 - d) is medial to the femoral vein
 - e) transmits the femoral branch of the genitofemoral nerve
- 12) The great saphenous vein:
- a) commences at the medial end of the dorsal venous arch
 - b) passes behind the medial malleolus
 - c) is accompanied by the saphenous nerve throughout its course
 - d) passes under the inguinal ligament and enters the femoral vein
 - e) drains the medial side of the leg between the tibia and the tendocalcaneus
- 13) Which is NOT true of the tendoachilles?
- a) it inserts into the middle third of the posterior surface of the calcaneus
 - b) it is invested in a synovial sheath
 - c) it is formed from the soleus and gastrocnemius
 - d) a bursa lies between the tendon and the upper third of the calcaneus
 - e) a bursa lies between it and the deep fascia near its insertion

- 14) Which of the following structures lies within the knee joint?
- patellar ligament
 - tibial collateral ligament
 - fibular collateral ligament
 - tendon of popliteus
 - patellar retinacula
- 15) Following an injury to the leg, a patient is unable to dorsiflex their foot. Which nerve is most likely to be damaged?
- the deep branch of the common peroneal nerve
 - the sural nerve
 - the superficial branch of the common peroneal nerve
 - the saphenous nerve
 - none of the above
- 16) With respect to peroneus longus:
- it inserts into the base of the 5th metatarsal
 - it is supplied by the superficial peroneal nerve
 - it has a broad tendon that lies between the lateral malleolus and the tendon of peroneus brevis
 - it arises from the upper two thirds of the tibia
 - it is mainly supplied by L4 and L5 segments
- 17) The stability of the weightbearing flexed knee is maintained by:
- anterior cruciate ligament
 - iliotibial tract
 - posterior cruciate ligament
 - popliteus and posterior cruciate ligament
 - arcuate popliteal ligament and anterior cruciate ligament
- 18) Regarding the femoral triangle:
- the lateral border of the adductor longus makes up its medial boundary
 - it is bisected by the femoral nerve
 - the lateral border of sartorius muscle makes up its lateral boundary
 - the long saphenous vein joins the femoral vein within the triangle
 - rectus femoris makes up part of the floor
- 19) Inversion of the foot is performed by which pair of muscles?
- peroneus longus and peroneus brevis
 - peroneus longus and tibialis posterior
 - tibialis anterior and tibialis posterior
 - peroneus brevis and plantaris
 - none of the above
- 20) The anterior tibial artery:
- pierces the interosseous membrane
 - supplies the lateral compartment of the leg
 - lies lateral to the deep peroneal nerve
 - lies lateral to tibialis anterior

- e) gives the nutrient artery to the tibia
- 21) The suprapatellar bursa:
- a) does not communicate with the knee joint
 - b) lies in front of the vastus intermedius muscle
 - c) extends 5cm or more above the patella
 - d) lies deep to the patellar retinacula
 - e) none of the above
- 22) Which of the following does NOT apply to the popliteus muscle?
- a) it inserts into the lateral meniscus of the knee joint
 - b) it is innervated by the tibial nerve
 - c) it acts to extend the knee joint
 - d) it inserts into the lateral condyle of the femur
 - e) it acts to laterally rotate the femur of the fixed tibia
- 23) A 30 year old man presents with adenopathy of the medial group of superficial inguinal lymph nodes on the right side. Which of the following is the primary site resulting in this finding?
- a) right testis
 - b) right buttock
 - c) the skin of the right lower limb
 - d) the anal canal
 - e) none of the above
- 24) Regarding the femoral artery:
- a) it enters the thigh directly beneath the deep inguinal ring
 - b) it lies lateral to the femoral nerve in the femoral sheath
 - c) it gives rise to the profunda femoris artery which pierces the femoral sheath
 - d) does not contribute to the trochanteric anastomosis
 - e) its branches include the superficial epigastric artery and the deep external pudendal artery
- 25) Regarding the popliteal fossa:
- a) the common peroneal nerve passes through the lateral part of the fossa
 - b) it contains no lymph nodes
 - c) it has a roof pierced by the tibial nerve
 - d) the popliteal artery lies superficial to the popliteal vein throughout the fossa
 - e) the small saphenous vein joins the popliteal vein before its entry into the fossa
- 26) Regarding the movements at the knee joint:
- a) popliteus 'unlocks' the extended knee by producing medial rotation of the femur
 - b) there is no active rotation of the extended knee
 - c) passive extension of the knee does not result in 'locking' of the joint
 - d) the posterior cruciate ligament prevents backward displacement of the femur on the tibial plateau
 - e) the major role of the menisci is in flexion/extension of the knee

- 27) The dorsalis pedis artery:
- lies medial to the tendon of extensor hallucis longus
 - lies lateral to the deep branch of the deep peroneal nerve
 - crosses superficial to the tendon of extensor hallucis brevis
 - terminates at the arcuate artery
 - joins the lateral plantar artery to form the plantar arch
- 28) A 25 year old man is unable to plantar flex his foot. The most likely cause is damage to:
- the superficial peroneal nerve
 - the L5 nerve root
 - the tibial nerve
 - soleus
 - gastrocnemius
- 29) Which of the following is NOT a component of the second layer of the sole of the foot?
- tendon of flexor hallucis longus
 - abductor hallucis
 - flexor accessorius
 - the lumbrical muscles
 - tendon of flexor digitorum longus
- 30) Which of the following structures does NOT pass through the greater sciatic foramen?
- the sciatic nerve
 - the pudendal nerve and vessels
 - the posterior cutaneous nerve of the thigh
 - the inferior gluteal nerve and vessels
 - the nerve to obturator externus
- 31) The psoas muscle:
- passes across the front of the capsule of the hip joint
 - is a powerful lateral rotator of the femur
 - inserts into the greater trochanter
 - is supplied by L4 and L5 nerve roots
 - arises from the iliac crest and sacroiliac joint
- 32) The femoral nerve:
- is formed from the anterior divisions of the anterior primary rami of L2-4
 - is formed from the same spinal segments as the obturator nerve
 - divides after passing through the femoral triangle
 - has no cutaneous branches other than the saphenous nerve
 - enters the thigh in the femoral sheath
- 33) The peroneus longus muscle:
- passes superficial to the superior peroneal retinaculum
 - inserts into the styloid process of the fifth metatarsal bone
 - is supplied by the common peroneal nerve
 - assists in the maintenance of the lateral longitudinal arch
 - has no origin from the tibia

- 34) The short saphenous vein:
- lies anterior to the lateral malleolus
 - is accompanied by the saphenous nerve
 - drains into the great saphenous vein
 - drains the lateral margin of the foot
 - lies deep to the deep fascia of the calf
- 35) Following a subcapital fracture of the neck of the femur, an 80 year old man sustains avascular necrosis of the femoral head. This is most likely to be the consequence of interruption to the blood supply to the head from which of the following sources:
- arteries from trochanteric anastomosis in the retinacula
 - artery of the ligament of the head from the obturator artery
 - branches from the profunda femoris artery
 - branches from the pudendal artery
 - branches from the inferior gluteal artery
- 36) Which structure does NOT pass under the inguinal ligament?
- femoral vein
 - lateral cutaneous nerve of the thigh
 - femoral nerve
 - femoral branch of the genitofemoral nerve
 - great saphenous vein
- 37) Regarding the femoral triangle:
- adductor magnus makes up part of the floor
 - no motor branches of the femoral nerve leave the triangle to enter the sartorius canal
 - the femoral artery occupies the lateral compartment of the femoral sheath
 - the main cutaneous nerve supply of the skin overlying the triangle is by the ilioinguinal nerve
 - the femoral vein lies medial to the femoral artery throughout the triangle
- 38) Regarding the femoral nerve, all of the following are true EXCEPT:
- the superficial group consists of two cutaneous and two muscular branches
 - the nerve to the vastus medialis passes down on the medial side of the femoral artery
 - the medial femoral cutaneous nerve belongs to the superficial group
 - the saphenous nerve is the only cutaneous branch of the deep group of the femoral nerve
 - the femoral nerve is formed from the posterior divisions of the ventral rami of the lumbar nerves 2, 3 and 4
- 39) Regarding the hip joint all of the following statements are true EXCEPT:
- the anterior fibres of the gluteus medius and minimus act as medial rotator of the hip joint
 - the gluteus maximus is the most powerful lateral rotator of the hip joint
 - gluteus medius and minimus are supplied by the inferior gluteal nerve (L5, S1, S2)
 - the superior gluteal nerve (L4, L5, S1) emerges from the greater sciatic foramen
 - the iliofemoral ligament limits extension at the hip joint

- 40) Regarding the popliteal fossa, which of the following statements is true?
- the common peroneal nerve slopes downwards lateral to the biceps tendon
 - the sural nerve is a cutaneous branch of the common peroneal nerve
 - the middle genicular artery of the popliteal artery supply the cruciate ligaments
 - the popliteus muscle is supplied by a branch of the common peroneal nerve
 - the recurrent genicular nerve is a branch of the tibial nerve
- 41) Regarding the extensor compartment of the lower leg, all of the following statements are true EXCEPT:
- the tibialis anterior muscle is supplied by the deep peroneal and recurrent genicular nerves (L4)
 - extensor digitorum longus and peroneus tertius muscle lie lateral to tibialis anterior artery throughout
 - the deep peroneal nerve arises within the peroneus longus muscle
 - the extensor digitorum longus dorsiflex the lateral toes
 - the extensor hallucis longus arises from the middle two-fourths of the tibia and the adjacent interosseous membrane
- 42) Regarding the foot, all of the following statements are true EXCEPT:
- the tibialis posterior muscle inverts and adducts the forefoot
 - the tibialis posterior muscle plantarflex the ankle joint
 - the tibialis anterior muscle dorsiflex the ankle and inverts the foot
 - all interossei muscles are supplied by the lateral plantar nerve
 - calcaneal branches of the deep peroneal nerve supply the skin of the heel
- 43) The popliteal artery:
- is superficial to the tibial nerve
 - extends from the hiatus in adductor longus
 - enters the popliteal fossa on lateral aspect of the femur
 - has four genicular branches in fossa
 - supplies the cruciate ligaments
- 44) The obturator nerve:
- adductor magnus
 - obturator internus
 - quadratus femoris
 - sartorius
 - inferior gemellus
- 45) Which of the following is correctly paired?
- adductor brevis – femoral nerve
 - adductor longus – sciatic nerve
 - adductor magnus – saphenous nerve
 - adductor longus – obturator nerve
 - adductor magnus – femoral nerve
- 46) The anterior cruciate ligament::
- lies within the synovial membrane of the knee joint
 - attaches from the anterior tibial plateau to the medial condyle of the femur
 - prevents forward displacement of the femur on the tibial plateau
 - produces lateral rotation of the femur in the 'screw home' position of full extension
 - none of the above

- 47) The surface marking for the femoral nerve is:
- midway between the A.S.I.S. and pubic tubercle
 - midway between the A.S.I.S. and pubic synthesis
 - medial to the femoral artery
 - 2cm lateral and 2cm interior to the pubic tubercle
 - none of the above
- 48) In the popliteal fossa, the deepest of these structures is:
- popliteal vein
 - popliteal artery
 - tibial nerve
 - sural nerve
 - plantaris muscle
- 49) Which of the following bursae is most likely to communicate with the knee joint?
- deep infrapatellar bursa
 - superficial infrapatellar bursa
 - prepatellar bursa
 - semimembranosis bursa
 - suprapatellar bursa
- 50) Adductor longus is inserted onto the:
- upper half of the linea aspera of the femur
 - upper two thirds of the linea aspera of the femur
 - upper one third of the linea aspera of the femur
 - lower two thirds of the linea aspera of the femur
 - lower half of the linea aspera of the femur
- 51) The muscle which provides the most control of hip joint movement during the act of sitting is:
- iliacus
 - semitendinosis
 - semimembranosis
 - gluteus maximus
 - gluteus medius
- 52) Structures passing through the greater sciatic foramen include all of the following EXCEPT:
- tendon of obturator internus
 - piriformis muscle
 - posterior cutaneous nerve of the thigh
 - pudendal nerve
 - nerve to quadratus femoris
- 53) The medial compartment of the thigh:
- contains obturator internus
 - contains the adductor canal
 - contains the femoral triangle
 - is limited superiorly by the obturator membrane
 - is supplied mainly by the obturator artery

- 54) The strongest fibres of the 'deltoid' ligament in the ankle run from the tibial malleolus to:
- a) medial tubercle of the talus
 - b) the neck of the talus
 - c) the sustentaculum tali
 - d) the navicular bone
 - e) the medial cuneiform

Section 2

Lower Limb – Answers

1	C	28	C
2	A	29	B
3	A	30	E
4	A	31	A
5	B	32	B
6	C	33	D
7	D	34	D
8	E	35	A
9	C	36	E
10	E	37	C
11	D	38	B
12	A	39	C
13	B	40	C
14	D	41	E
15	A	42	E
16	B	43	E
17	C	44	A
18	D	45	D
19	C	46	E
20	D	47	A
21	C	48	B
22	C	49	E
23	D	50	D
24	E	51	D
25	A	52	A
26	B	53	D
27	E	54	C

Section 3

- 1) In the femoral triangle:
 - a) the femoral nerve emerges from the femoral sheath
 - b) the saphenous nerve lies medial to the femoral artery at the apex
 - c) the genitofemoral nerve pierces the anterior surface of the femoral sheath
 - d) the profunda femoris artery arises from the medial aspect of the femoral artery
 - e) the obturator nerve passes anterior to pectineus

- 2) The iliotibial tract is the conjoined aponeurosis of the tensor fasciae lata and:
 - a) gluteus minimus
 - b) gluteus medius
 - c) gluteus maximus
 - d) Camper's fascia
 - e) Scarpa's fascia

- 3) Fourth lumbar nerve root supplies:
 - a) hip flexors
 - b) tibialis anterior
 - c) skin on the big toe
 - d) flexor longus digitorum
 - e) flexor accessories (quadratus plantae)

- 4) The base of Scarpa's femoral triangle is formed by:
 - a) sartorius
 - b) adductor longus
 - c) inguinal ligament
 - d) pubic tubercle
 - e) none of the above

- 5) Passing through the greater sciatic notch deep to the sciatic nerve is which of the following?
 - a) internal pudendal vessels and nerve
 - b) inferior gemellus muscle
 - c) posterior cutaneous nerve of the thigh
 - d) nerve to quadratus femoris
 - e) none of the above

- 6) The femoral vein lies to the femoral artery in the femoral sheath:
 - a) lateral
 - b) medial
 - c) anterior
 - d) posterior
 - e) femoral vein is not in the femoral sheath

- 7) The main function of gluteus maximus is which of the following:
- a) a site for injections
 - b) a cushion for sitting
 - c) a flexor of the hip
 - d) a lateral rotator of the hip
 - e) none of the above
- 8) Tensor fascia latae:
- a) is quadrangular in shape
 - b) is supplied by the femoral nerve
 - c) extends the hip
 - d) is an atavistic remnant of the panniculus carnosus muscle
 - e) lies edge to edge with sartorius at the anterior superior iliac spine
- 9) The superior gluteal nerve supplies:
- a) gluteus medius
 - b) gluteus minimus
 - c) tensor fascia latae
 - d) none of the above
 - e) all of the above
- 10) The hamstring muscles originate from:
- a) body of the ischium
 - b) ramus of the pubis
 - c) iliac crest
 - d) ischial tuberosity
 - e) symphysis pubis
- 11) The upper tibial epiphysis appears at:
- a) birth
 - b) 1 year
 - c) 2 year
 - d) 3 years
 - e) puberty
- 12) At birth:
- a) all the tarsal bones are ossified
 - b) only calcaneus is ossified
 - c) calcaneus and talus are ossified
 - d) calcaneus, talus and cuboid are ossified
 - e) none of the above
- 13) Which of the following is found in the popliteal fossa?
- a) sciatic nerve
 - b) femoral vein
 - c) common peroneal nerve
 - d) femoral artery
 - e) saphenous nerve

- 14) The short saphenous vein passes below and behind the:
- medial malleolus
 - lateral malleolus
 - medial epicondyle
 - lateral epicondyle
 - greater trochanter
- 15) When standing, the knee joint is locked in extension by:
- lateral rotation of the tibia
 - medial rotation of the femur
 - tightening of the medial ligament
 - tightening of the lateral ligament
 - tension in the oblique popliteal ligament
- 16) The posterior cutaneous nerve of the thigh:
- consists only of S2, 3
 - travels most of its course superficial to the fascia lata
 - innervates a small area on the labia majora
 - emerges above pinforris
 - none of the above
- 17) The deep peroneal nerve supplies:
- skin between the first and second toes
 - skin between the second and third toes
 - skin on the medial side of the shin
 - skin on the dorsolateral side of the foot
 - the great toe only
- 18) Attached to lateral meniscus is which of the following:
- posterior cruciate ligament
 - lateral ligament of the knee
 - mucous fold
 - popliteus muscle
 - oblique popliteal ligament
- 19) The obturator nerve is derived from the anterior rami of:
- T12, L1 and L2
 - L1, L2 and L3
 - L2, L3 and L4
 - L3, L4 and S1
 - none of the above
- 20) The skin crease of the hip:
- is where the inguinal ligament is attached to the fascia lata
 - is where the external oblique aponeurosis is joined to Scarpa's fascia
 - is where Scarpa's fascia is attached to the fascia lata
 - is mainly supplied by the femoral nerve
 - none of the above

- 21) Peroneus tertius:
- acts only to evert the foot
 - arises from the lower anterior part of the tibia
 - may insert into the neck of the fifth metatarsal
 - passes superficial to the extensor retinaculum
 - is innervated by the superficial peroneal nerve
- 22) Structures closely related to long saphenous vein at ankle include which of the following?
- major perforating veins to deep venous system
 - a branch of the femoral nerve
 - medial superficial lymphatic trunks
 - a branch of the anterior tibial nerve
 - dorsalis pedis artery
- 23) The only muscle to cross the anterior tibial artery is:
- extensor hallucis longus
 - extensor digitorum brevis
 - extensor hallucis brevis
 - extensor digitorum longus
 - tibialis anterior
- 24) The dorsalis pedis artery is:
- lateral to extensor hallucis longus at the ankle
 - medial to extensor hallucis longus at the ankle
 - medial to tibialis anterior at the ankle
 - found perforating the first metatarsal space and joining with the medial plantar artery
 - lateral to the digital branch of the deep peroneal nerve
- 25) Features of the fibula include which of the following?
- it is on the medial side of the tibia
 - its medial surface is grooved for the origin of tibialis posterior
 - it is ossified from five centres
 - it does not provide origin for flexor digitorum longus
 - its lower third is rough for the origin of soleus
- 26) Which of the following is true of the saphenous nerve?
- is predominantly from L2
 - supplies adductor magnus
 - pierces the deep fascia in the femoral triangle
 - is cutaneous only
 - terminates just below the knee
- 27) The superficial epigastric, superior perforating and deep external pudendal arteries are all branches of:
- profunda femoris
 - popliteal
 - internal iliac
 - external iliac
 - none of the above

- 28) Which of the following is NOT a branch of the profunda femoris artery?
- a) medial femoral circumflex
 - b) lateral femoral circumflex
 - c) popliteal
 - d) perforating
 - e) all are branches of the profunda
- 29) The long saphenous vein:
- a) passes anterior to the inguinal ligament
 - b) passes posteriorly to the medial malleolus
 - c) ascends the lateral side of the leg
 - d) receives tributaries from the perineum
 - e) is in close relation with the saphenous nerve throughout the length of its course
- 30) The chief dorsiflexor of the ankle joint:
- a) peroneus tertius
 - b) tibialis anterior
 - c) extensor longus hallucis
 - d) extensor longus digitorum
 - e) none of the above
- 31) Iliopsoas:
- a) supplied by obturator nerve
 - b) medial rotator of hip
 - c) synergist of quadriceps femoris
 - d) lateral rotator of hip
 - e) none of the above
- 32) The lumbar plexus is formed by ventral primary rami of:
- a) T12, L1, L2 and L3
 - b) L1, L2, L3 and L4
 - c) L2, L3, L4 and L5
 - d) L2, L4, L5 and S1
 - e) formed by dorsal primary rami
- 33) The cutaneous nerve supplying the medial aspect of the calf is:
- a) anterior femoral cutaneous
 - b) sural
 - c) superficial peroneal
 - d) saphenous
 - e) posterior femoral cutaneous
- 34) The nerve supply to the knee joint comes from:
- a) sciatic
 - b) femoral
 - c) obturator
 - d) all of these
 - e) none of these

- 35) The most powerful extensor of the hip is:
- a) gluteus maximus
 - b) psoas major
 - c) iliacus
 - d) obturator externus
 - e) piriformis
- 36) Which of the following is not an action of gracilis?
- a) adduction of thigh
 - b) flexion of knee
 - c) extension of thigh
 - d) medial rotation of the flexed knee
 - e) none of these
- 37) Obturator externus:
- a) is pierced by femoral circumflex artery
 - b) external rotator of hip
 - c) internal rotator of hip
 - d) hip flexor
 - e) supplied by S.I.
- 38) The intermediate cutaneous nerve of the thigh:
- a) arises from the sacral plexus
 - b) is a branch of the obturator nerve
 - c) pierces sartorius
 - d) extends beneath the knee
 - e) arises independently of the medial cutaneous nerve of the thigh
- 39) The dorsalis pedis artery is a continuation of:
- a) anterior perforating branch of posterior tibial
 - b) anterior tibial
 - c) popliteal
 - d) femoral
 - e) peroneal
- 40) The lateral aspect of the thigh has a cutaneous nerve supply derived from:
- a) L2 and 3
 - b) L3 and 4
 - c) L5, S1 and S2
 - d) L4, L5 and S1
 - e) S1 and S2
- 41) The sole of the foot has a cutaneous nerve supply derived from:
- a) L4, L5, S1 and S2
 - b) L5 and S1
 - c) L4, L5 and S1
 - d) L4 and L5
 - e) L5, S1 and S2

- 42) The adductor (subsartorial) canal of Hunter is bounded laterally by:
- adductor longus
 - adductor magnus
 - vastus medialis
 - sartorius
 - femoral vein
- 43) In the upper part of the popliteal fossa the following are found from medial to lateral:
- popliteal artery, popliteal vein, sciatic vein
 - popliteal vein, popliteal artery, sciatic nerve
 - sciatic nerve, popliteal artery, popliteal vein
 - sciatic nerve, popliteal vein, popliteal artery
 - popliteal artery, sciatic nerve, popliteal vein
- 44) Flexor digitorum longus:
- lies superficial to tibialis posterior
 - muscle belly lies medial to flexor hallucis longus
 - arises from both tibia and fibula
 - has communications with flexor longus hallucis
 - all of the above
- 45) Posterior tibial artery:
- arises at the upper border of popliteus
 - has no accompanying sympathetic nerve plexus
 - lies posterior to flexor longus digitorum under flexor retinaculum
 - lies on peroneus brevis for part of its course
 - all of the above
- 46) Flexor longus digitorum:
- crosses deep to tibialis posterior in calf
 - crosses superficial to flexor longus hallucis in sole
 - is an evertor of the foot
 - supplied by musculocutaneous nerve
 - supplied by L5 nerve root
- 47) The long saphenous vein:
- lies deep to the deep fascia only near its termination
 - normally drains blood from deep veins
 - communicates with the deep venous system only indirectly
 - normally receives blood from the deep venous system
 - has no valves other than at saphenofemoral junction
- 48) Concerning the talus:
- blood supply to body enters only through the dorsum of the neck
 - superior articular facet is broader posteriorly than anteriorly
 - articulates with cuboid
 - has no muscles attached
 - all of the above

- 49) Concerning the ankle:
- a) movements of dorsi and plantar flexion only are possible
 - b) communicates with inferior tibiofibular joint
 - c) communicates with posterior subtalar joint
 - d) dorsiflexion accompanied by some eversion
 - e) can be plantarflexed by flexor longus hallucis
- 50) At the ankle, the posterior tibial nerve:
- a) has no further motor branches
 - b) has no further cutaneous branches
 - c) lies anterior to the artery
 - d) lies anterior to flexor longus hallucis
 - e) none of the above
- 51) Biceps femoris:
- a) inserts partially into the tibial condyle
 - b) has intramuscular tendon
 - c) attached proximally to the ilium
 - d) supplied by L4
 - e) shares its origin with semimembranosus
- 52) Common peroneal nerve:
- a) supplies the knee joint
 - b) supplies semitendinosus
 - c) supplies skin on sole
 - d) all of the above
 - e) none of the above
- 53) On the front of the ankle joint, the tendon of extensor hallucis longus:
- a) is medial to tibialis anterior
 - b) is medial to deep peroneal nerve
 - c) is lateral to extensor digitorum longus
 - d) possesses no synovial sheath
 - e) is lateral to extensor hallucis brevis
- 54) Iliofemoral ligament:
- a) limits hip flexion
 - b) limits hip extension
 - c) limits hip adduction
 - d) limits hip internal rotation
 - e) none of the above
- 55) At the upper end of the femur:
- a) gluteus maximus is attached to a ridge on the posterior surface
 - b) gluteus medius is attached to the anterior surface of the greater trochanter
 - c) the three secondary centres of ossification fuse together before joining the shaft
 - d) the posterior part of the capsular ligament is attached to the intertrochanteric crest
 - e) main nutrient artery enters the bone

- 56) Medial longitudinal plantar arch:
- a) raised by peroneus longus
 - b) maintained by ligamentum bifurcation
 - c) maintained by talocalcaneal interosseous ligament
 - d) all of the above
 - e) none of the above
- 57) The femoral nerve:
- a) continues as a cutaneous branch which runs along the lateral border of the foot
 - b) supplies iliacus muscle
 - c) supplies psoas muscle
 - d) supplies obturator externus muscle
 - e) lies within the femoral sheath
- 58) Rectus femoris muscle:
- a) occupies an intermediate plane in the quadriceps muscle mass
 - b) arises from the anterior superior iliac spine
 - c) has two heads of origin
 - d) supplied by ilioinguinal nerve
 - e) none of the above
- 59) The deep fascia of the thigh:
- a) is attached to the inguinal ligament
 - b) is mostly superficial to the long saphenous vein
 - c) receives the insertion of the whole of the gluteus maximus
 - d) receives the insertion of the whole of sartorius
 - e) is less dense than the deep fascia of the upper arm
- 60) Biceps femoris muscles:
- a) has a common origin with semitendinosus from the ischial tuberosity
 - b) has a short head attached to the femur medial to the attachment of adductor magnus
 - c) is entirely innervated by common peroneal nerve
 - d) is deep to the common peroneal nerve
 - e) is a lateral rotator of the leg on the thigh when the leg is fully extended at the knee joint
- 61) The pudendal nerve:
- a) leaves the pelvis through the lesser sciatic foramen
 - b) enters the perineum lateral to the nerve to the obturator internus muscle
 - c) runs in the roof of the ischiorectal fossa
 - d) is sensory to the skin of the scrotum
 - e) innervates the internal rectal sphincter
- 62) The sciatic nerve in the gluteal region:
- a) rests directly on ischium
 - b) is accompanied by posterior cutaneous nerve of thigh
 - c) supplies obturator internus
 - d) supplies quadratus femoris
 - e) none of the above

- 63) Short saphenous vein:
- a) perforates the deep fascia in the midcalf
 - b) medial to the tendoachilles
 - c) more valves than the long saphenous
 - d) none of the above
 - e) all of the above
- 64) Pectineus:
- a) medial rotator of hip
 - b) sometimes supplied by obturator nerve
 - c) flexor of hip
 - d) all of the above
 - e) none of the above
- 65) The segmental supply to the posterior cutaneous nerve of the thigh is:
- a) S3, 4
 - b) L4, 5
 - c) S1, 2, 3
 - d) L4, 5 and S1
 - e) none of the above
- 66) Long saphenous vein:
- a) is deep to the deep fascia for most of its course
 - b) drains the medial side of the leg between tibia and tendocalcaneous
 - c) arises in the femoral triangle
 - d) the superficial circumflex iliac vein is a tributary
 - e) none of the above
- 67) Attached to proximal tibial epiphysis:
- a) the whole of the medial collateral ligament of the knee
 - b) sartorius
 - c) ligamentum patellae
 - d) popliteus
 - e) semitendinosus
- 68) Emerging from lesser sciatic foramen:
- a) piriformis
 - b) superior gemellus
 - c) obturator internus
 - d) inferior gemellus
 - e) obturator externus
- 69) If the common peroneal nerve is divided the following are lost:
- a) plantar flexion of toes
 - b) inversion of foot
 - c) dorsiflexion of foot
 - d) plantar flexion of foot
 - e) there is no loss of cutaneous sensation

- 70) Flexor hallucis longus muscle:
- a) is attached to the tibia
 - b) has a tendon which in the sole, is superficial to that of flexor longus digitorum
 - c) is a unipennate muscle
 - d) is attached to the proximal phalanx of the great toe
 - e) none of the above
- 71) Middle cuneiform:
- a) articulates with talus
 - b) articulates with the third metatarsal
 - c) receives portion of insertion of tibialis anterior
 - d) gives attachment to short plantar ligament
 - e) none of the above
- 72) Profunda femoris artery:
- a) first branch from femoral artery
 - b) main arterial supply to leg
 - c) spirals down from lateral side of the femoral artery and runs behind the upper border of adductor longus
 - d) lies between obturator externus and adductor magnus
 - e) none of the above
- 73) Talus:
- a) receives all its blood supply to the body through dorsal aspect of neck
 - b) gives attachment to spring ligament
 - c) posterior aspect of body grooved by flexor longus hallucis
 - d) gives partial origin to abductor hallucis
 - e) none of the above

Section 3

Answers

1	C	38	C
2	C	39	B
3	B	40	A
4	C	41	B
5	D	42	C
6	B	43	A
7	E	44	E
8	E	45	C
9	E	46	B
10	D	47	A
11	A	48	D
12	D	49	E
13	C	50	D
14	B	51	A
15	B	52	A
16	C	53	B
17	A	54	B
18	D	55	A
19	C	56	E
20	C	57	B
21	C	58	C
22	B	59	A
23	A	60	A
24	A	61	D
25	B	62	A
26	D	63	D
27	E	64	D
28	C	65	C
29	D	66	D
30	B	67	C
31	B	68	C
32	B	69	C
33	D	70	E
34	D	71	E
35	A	72	C
36	C	73	C
37	B		

Section 4

- 1) Gluteus maximus:
 - a) superficial muscle of buttock characterized by small fibre size
 - b) 90% of muscle inserts into upper end of iliotibial tract
 - c) four bursae lie beneath to muscle
 - d) shared common nerve supply with gluteus medius
 - e) blood supply from both superior and inferior gluteal artery

- 2) Piriformis is the key to gluteal region. Which relation is not TRUE?
 - a) in buttock, lower border lies alongside superior gemellus
 - b) converges to sciatic tendon and inserts on upper border of greater trochanter
 - c) emerges through greater sciatic foramen with superior gluteal nerve and vessel above it
 - d) emerges through the greater sciatic foramen with pudendal nerve and vessels deep to it
 - e) emerges through greater sciatic foramen with sciatic nerve on its surface

- 3) Of the hip joint ligaments and capsule:
 - a) capsule attaches circumferentially to neck of femur anterior trochanteric line
 - b) retinacular fibres of capsule bind down nutrient artery from cruciate anastomosis
 - c) iliofemoral ligament becomes taut on medial rotation and extension
 - d) all three ligaments attach to capsule and completely enclose joint
 - e) psoas major tendon separates capsule from femoral nerve

- 4) Superficial cutaneous nerves supplying the thigh include the following EXCEPT:
 - a) ilioinguinal nerve
 - b) saphenous nerve
 - c) femoral branch of genitofemoral nerve
 - d) medial femoral cutaneous nerve
 - e) intermediate femoral cutaneous nerve

- 5) The flexor compartment of the thigh contains which of the following muscles?
 - a) gluteus maximus
 - b) adductor magnus
 - c) gracilis
 - d) semimembranosus
 - e) rectus femoris

- 6) Which of the following is true of the great saphenous vein?
 - a) it passes posterior to the medial malleolus
 - b) it runs behind the lateral border of the tibia
 - c) it passes through the cribriform fascia covering the saphenous opening below the inguinal ligament
 - d) it joins the femoral vein from the anterolateral side
 - e) it has no tributaries

- 7) Which is not an origin of vastus lateralis?
- a) upper half of the intertrochanteric line
 - b) aponeurosis of tensor fascia lata
 - c) lateral lip of the linea aspera
 - d) upper two thirds of the lateral supracondylar line of femur
 - e) lateral intermuscular septum
- 8) Regarding the adductor canal:
- a) it contains the nerve to vastus intermedius
 - b) contents leave by piercing adductor longus
 - c) the femoral artery is always between the saphenous nerve and femoral vein in the thigh
 - d) below the adductor hiatus, the canal is occupied by the saphenous nerve of the descending genicular nerve
 - e) at the adductor hiatus, the femoral vein is medial to the artery
- 9) At the hip:
- a) the ligament of the head of the femur is attached to the acetabular notch
 - b) the pubofemoral ligament is the weakest ligament at the hip
 - c) flexion tightens the ligaments
 - d) the obturator nerve via its anterior division, innervates the capsule and retinacular fibres
 - e) the normal range of flexion is 160°
- 10) Regarding the cuneiform bones:
- a) the lateral is the smallest
 - b) tibialis anterior is inserted into a facet on the intermediate cuneiform
 - c) flexor hallucis brevis has an origin on the medial cuneiform
 - d) the anterior surface of the medial cuneiform is triangular in shape
 - e) the second metatarsal bone articulates with all three cuneiforms
- 11) Regarding the dorsum of the foot:
- a) cutaneous innervation is primarily from the sural nerve
 - b) extensor digitorum brevis gives off four tendons to the lateral four toes
 - c) the superficial peroneal nerve divides into medial and lateral branches below the ankle
 - d) the inferior extensor retinaculum joins medial and lateral malleoli
 - e) dorsalis pedis artery runs to the base of the first intermetatarsal space
- 12) Regarding the sole of the foot:
- a) the heel is supplied by lateral calcaneal nerves
 - b) flexor hallucis brevis lies in the first muscular layer
 - c) flexor digitorum brevis is the lower limb equivalent of flexor digitorum superficialis
 - d) the plantar arteries and nerves lie between the second and third muscular layers
 - e) the medial plantar artery forms the plantar arch with dorsalis pedis artery
- 13) At the ankle joint:
- a) the distal fibular is not part of the joint
 - b) the medial ligament is made up of three separate bands
 - c) the posterior tibiofibular ligament is also known as posterior transverse ligament
 - d) the long and short peronei muscles assist in plantar flexion
 - e) nerve supply is from the anterior and posterior tibial nerves

- 14) Which is NOT true about fractured neck of femurs?
- the leg is shortened and externally rotated in most fractured neck of femurs
 - the main source of blood to the femoral head is via the vessels running within cancellous bone from the diaphysis
 - a subcapital fracture cuts off all the blood to the head of the femur resulting in avascular necrosis
 - the blood supply to the head is increased by vessels in the capsular retinacula and it is this which prevents avascular necrosis of the head after an intertrochanteric fracture
 - the ligamentum teres attaches to the central fovea???? on the femoral head and originates from the acetabulum
- 15) Trendelenburg's test is negative if:
- the hip adductors are paralysed (eg in poliomyelitis)
 - there is an old unreduced or congenital dislocation of the hip
 - there is an ununited fracture of the neck of femur
 - the patient walks with a dipping gait
 - gluteus minimus and medius and tensor fascia latae are weakened severely
- 16) Which of the following structures can be missing in a completely stable and functional knee?
- ACL
 - PCL
 - oblique ligament
 - patella
 - lateral collateral ligament
- 17) Which statement about femoral hernias is INCORRECT?
- it is commoner in males than females
 - it is never due to a congenital sac
 - the femoral cord acts as a lymphatic pathway from the lower limb to the external iliac nodes
 - the neck of a femoral hernia can be distinguished from an inguinal hernia because it lies below and lateral to the pubic tubercle
 - the femoral cord normally contains a fat plug and cloquet's gland but can also accommodate a distended femoral vein
- 18) In the sole:
- plantar arteries and nerves lie between second and third layers
 - the myotome is essentially S1
 - the medial plantar nerve supplies the medial 4½ toes
 - tendons for peroneus longus and tibialis posterior lie in the third layer
 - abductor digiti minimi is in the first layer
- 19) Which is supplied by the medial plantar nerve?
- adductor hallucis
 - abductor digiti minimi
 - flexor hallucis longus
 - flexor accessories
 - first lumbrical

- 20) At the ankle:
- the capsule is attached to the posterior tibiofibular ligament
 - the deltoid ligament has three parts
 - the joint is a simple hinge joint
 - the joint undergoes dorsiflexion, plantar flexion, inversion and eversion
 - nerve supply is deep and superficial peroneal nerves and tibial nerves
- 21) The cruciate anastomosis is NOT joined by:
- transverse branch of the lateral circumflex A
 - descending branch of the internal pudendal A
 - ascending branch of the first perforating A
 - descending branch of the inferior gluteal A
 - transverse branch of the medial circumflex
- 22) Stability of the patella in knee extension is maintained primarily by:
- inferior fibres of vastus lateralis
 - relative prominence of the medial femoral condyle
 - inferior fibres of vastus medialis
 - tension of medial patella retinaculum
 - articularis genu muscle
- 23) Regarding the branches of the femoral nerve:
- does NOT supply cutaneous sensation to skin over the femoral triangle
 - femoral cutaneous nerves pass through the fascia lata via the saphenous canal
 - saphenous nerve follows the course of the great saphenous vein
 - branch to pectineus passes between the femoral artery and vein
 - generally branch within the femoral sheath
- 24) Profunda femoris artery is separated from the femoral artery by:
- pectineus
 - satorius
 - fascia lata
 - femur
 - adductor longus
- 25) Femoral canal contains:
- femoral nerve
 - lymph node (of cloquet)
 - femoral artery
 - femoral vein
 - B, C and D are correct
- 26) Regarding the saphenous opening:
- transmits the contents of the femoral sheath
 - posterior wall lies immediately anterior to pectineus
 - the great saphenous vein passes superomedially through it
 - bounded medially by the lacunar ligament
 - the falciform edge attaches superiorly to the pectineal line

- 27) Piriformis:
- a) is an abductor of the hip in hip flexion
 - b) passes through the lesser sciatic foramen
 - c) is the preferred site of intramuscular gluteal injection
 - d) passes anterior to the femoral neck
 - e) lies deep to the sciatic nerve
- 28) Popliteus:
- a) attaches to the medial femoral condyle
 - b) "locks" the knee in extension
 - c) supplied by a branch of the femoral nerve
 - d) lies immediately deep to the popliteal artery
 - e) may attach to the medial meniscus
- 29) The third layers of muscles of the sole of the foot include:
- a) four lumbricals and quadratus plantae
 - b) plantar and dorsal interossei
 - c) extensor hallucis longus and extensor digitorum longus
 - d) flexor digiti minimi brevis, adductor hallucis transversus, adductor hallucis obliquus and flexor hallucis brevis
 - e) abductor hallucis, abductor digiti minimi and flexor digitorum brevis
- 30) Peroneus longus inserts into:
- a) medial cuneiform and first metatarsal
 - b) base of 5th metatarsals
 - c) 4th and 5th metatarsal
 - d) navicular tuberosity
 - e) cuboid tuberosity
- 31) The transverse arch of the foot is formed by:
- a) calcaneus, talus, navicular, cuneiforms and first three metatarsals
 - b) navicular, cuneiforms, cuboid, all five metatarsals
 - c) calcaneus, cuboid, lateral two metatarsals
 - d) calcaneus, navicular, lateral two metatarsals
 - e) sustentaculum tali and cuneiforms
- 32) Which of the following is TRUE?
- a) the popliteal fossa is bounded by the biceps medially
 - b) the great saphenous vein runs through the popliteal fossa
 - c) gluteus maximus inserts on the greater trochanter
 - d) the sciatic nerve leaves the pelvis by passing through the lesser sciatic foramen
 - e) the popliteal fossa contains the common peroneal nerve

- 33) The femoral triangle:
- a) the femoral triangle is bounded by the inguinal ligament medial border of sartorius and lateral border of adductor longus
 - b) the mid-inguinal joint is midway between the pubic tubercle and the anterior superior iliac spine
 - c) the femoral canal contains the lymph node of cloquet
 - d) the femoral sheath contains the femoral nerve and femoral artery
 - e) the femoral and profunda femoris arteries are separated by adductor brevis
- 34) The knee:
- a) the cruciate ligaments are intra-synovial
 - b) the posterior cruciate ligament stabilises the flexed weight-bearing knee
 - c) the posterior horn of the medial meniscus is attached to the intercondylar area of the tibia behind the posterior cruciate ligament
 - d) the knee joint normally contains 5.0ml of synovial fluid
 - e) active rotation may occur in the extended knee
- 35) Which one of the following muscles has a double nerve supply?
- a) rectus femoris
 - b) sartorius
 - c) pectineus
 - d) adductor longus
- 36) Inversion and eversion of the foot take place MAINLY at the:
- a) ankle joint
 - b) joints between the talus and calcaneus
 - c) joint between calcaneus and navicular bone
 - d) calcanocuboid joint
 - e) inferior tibiofibular joint
- 37) Which one of the following has a tendo that is intracapsular?
- a) plantaris
 - b) popliteas
 - c) rectus femoris
 - d) psoas major
 - e) peroneal longus
- 38) The deltoid ligament belongs to the:
- a) ankle joint
 - b) hip joint
 - c) knee joint
 - d) talocalcaneonavicular joint
 - e) calcaneocuboid joint

Section 4

Answers

- | | |
|----|-----------|
| 1 | E |
| 2 | D |
| 3 | C |
| 4 | B |
| 5 | D |
| 6 | C |
| 7 | B |
| 8 | C |
| 9 | D |
| 10 | E |
| 11 | E |
| 12 | C |
| 13 | D |
| 14 | C |
| 15 | A |
| 16 | D |
| 17 | A |
| 18 | E |
| 19 | E |
| 20 | A |
| 21 | B |
| 22 | C |
| 23 | A |
| 24 | E |
| 25 | B |
| 26 | B |
| 27 | A |
| 28 | D |
| 29 | no answer |
| 30 | no answer |
| 31 | no answer |
| 32 | no answer |
| 33 | C |
| 34 | B |
| 35 | C |
| 36 | B |
| 37 | A |
| 38 | A |

1 Regarding superficial nerves of the anterior thigh

- A The ilioinguinal nerve only supplies external genitalia
- B The genitofemoral nerve supplies the skin over the femoral triangle
- C The medial femoral cutaneous nerve arises from L3/4
- D The intermediate femoral cutaneous nerve supplies a small area of skin over the inguinal ligament
- E The lateral femoral cutaneous nerve runs lateral to the anterior superior iliac spine

2 The great saphenous vein

- A arises on the lateral aspect of the foot
- B can be found 2cm medial to the patella
- C pierces the fascia lata on the lateral side of the thigh
- D receives no tributaries above the knee
- E contains approximately 20 valves

3 Regarding the femoral triangle

- A The lateral border is formed by the lateral border of sartorius
- B The medial border is the medial border of adductor magnus
- C The femoral nerve is contained in the femoral sheath
- D The lymph node of Cloquet lies in the femoral canal
- E The femoral vein is lateral to the artery

4 Regarding the femoral artery, all of the following are true EXCEPT

- A The artery enters the femoral triangle at the mid-inguinal point
- B Passes anterior to the profunda femoris branch
- C Supplies muscles of the adductor compartment
- D Ceases at the mid point of the popliteal fossa
- E Lies medial to the femoral nerve

5 Regarding the femoral nerve, all of the following are true EXCEPT

- A It is formed from the anterior divisions of the anterior rami of L2/3/4
- B It supplies the muscles of the anterior compartment
- C It does not lie within the femoral sheath
- D It supplies iliacus but not psoas
- E Branches include the medial and intermediate femoral cutaneous nerves

6 Regarding the obturator nerve, all of the following are true EXCEPT

- A It is formed from the anterior divisions of the anterior rami of L2/3/4
- B Its anterior division supplies adductor longus, brevis, pectineus and gracilis
- C Its posterior division supplies all of adductor magnus
- D It gives a cutaneous branch which supplies the medial thigh
- E It gives articular branches to the hip and knee joints

7 Gluteus maximus

- A Arises from the gluteal fossa of the ilium between the middle and superior gluteal lines
- B is supplied by the superior gluteal nerve
- C extends and medially rotates the hip
- D mostly inserts into the iliotibial tract
- E paralysis results in a waddling gait

8 The pudendal nerve

- A Arises from L5/S1/2
- B Emerges from the upper border of piriformis
- C Contains only sensory fibres
- D Passes medial to the ischial spine
- E Passes through the greater sciatic foramen to enter the pelvis

9 Regarding the hamstring muscles, all of the following are true EXCEPT

- A All of the hamstrings arise from the innominate bone
- B All of the hamstring muscles are supplied by the tibial part of the sciatic nerve
- C The long head of biceps femoris and semitendinosus have a common origin
- D The adductor magnus is not part of the hamstring group
- E Biceps forms the medial border of the popliteal fossa

10 The sciatic nerve

- A Arises from L3/4/5/S1/2
- B Emerges from the lower border of piriformis
- C Most commonly divides onto common peroneal and tibial branches in the middle of the hamstring compartment
- D Can be injured by intramuscular injections in the upper outer quadrant of the buttock
- E Gives no branches in the gluteal compartment

11 All of the following are lateral rotators of the hip EXCEPT

- A Gluteus maximus
- B Gluteus medius
- C Gemelli superior
- D Quadratus femoris
- E Piriformis

12 Ligamentous stability for the hip joint is provided chiefly by the

- A Ligamentum teres
- B Ischiofemoral ligament
- C Pubofemoral ligament
- D Iliofemoral ligament
- E Transverse ligament

13 Contents of the popliteal fossa include all of the following EXCEPT

- A Sural nerve
- B Superior medial genicular artery
- C Sural communicating nerve
- D Inferior medial genicular artery
- E Anterior tibial artery

14 Regarding ligaments of the knee joint

- A The anterior cruciate ligament inserts into the posteromedial aspect of the lateral femoral condyle
- B The arcuate ligament is an expansion of the tendon of semimembranosus
- C The meniscofemoral ligaments cross in front and behind the anterior cruciate
- D The medial collateral ligament is a cord-like structure
- E The transverse ligament connects the posterior aspects of the menisci

15 Regarding the menisci of the knee

- A They are attached to the femoral condyles
- B They have a rich blood supply
- C The medial meniscus is firmly attached to the capsule of the joint
- D The medial meniscus gives origin to the menisiofemoral ligaments
- E They are composed of mainly elastic fibres Anatomy – lower limb

16 Regarding movements of the knee joint

- A Sartorius assists with flexion
- B The only action of popliteus is unlocking of the knee
- C Extension occurs to zero degrees
- D Locking of the knee is an active process
- E Rotation takes place above the menisci

17 Regarding the extensor compartment of the leg

- A Tibialis anterior arises from the upper two thirds of the tibia and fibula
- B Extensor digitorum longus has a small origin from the lateral condyle of the tibia
- C Extensor hallucis longus is superficial to extensor digitorum longus
- D All muscles are supplied by the common peroneal nerve
- E Peroneus tertius and tibialis anterior both cause eversion of the foot

18 Which of the following structures does not pass anterior to the medial malleolus

- A Tibialis anterior
- B Extensor hallucis longus
- C Flexor hallucis longus
- D Anterior tibial artery
- E Peroneus tertius

Q	A
1	B
2	E
3	D
4	D
5	A
6	C
7	D
8	D
9	E
10	B
11	B
12	D
13	E
14	A
15	C
16	A
17	B
18	C

Hip and thigh

1. Femoral nerve

- a. is less subject to damage by penetrating injuries of the lower abdomen than of the lower limb
- b. Damage may cause anaesthesia of the foot
- c. Is contained within the femoral sheath
- d. Is formed by the anterior divisions of L2,3,4
- e. Gives a single muscular branch to iliacus

2. With respect to the hip joint

- a. The fibrous capsule is strengthened by 2 ligaments
- b. Anteriorly the psoas major tendon separates the capsule from the femoral vein
- c. It is least stable when flexed and adducted
- d. Ligament of Bigelow is the weakest ligament
- e. Ischiofemoral ligament is the strongest ligament

3. Femoral nerve

- a. Is formed from the anterior divisions of the anterior primary rami of L2-4
- b. Is formed from the same spinal segments as the obturator nerve
- c. Divides after passing through the femoral triangle
- d. Has no cutaneous branches other than the saphenous nerve
- e. Enters the thigh in the femoral sheath

4. Which of the following does not pass through the greater sciatic foramen

- a. The sciatic nerve
- b. The pudendal nerve and vessels
- c. The posterior cutaneous nerve of the thigh
- d. Inferior gluteal vessels and nerve
- e. Nerve to obturator externus

5. Which of the following are not found in the adductor (subsartorial) canal

- a. Femoral artery
- b. Femoral vein
- c. Femoral nerve
- d. Saphenous nerve
- e. Nerve to vastus medialis

6. A 30 y.o. man presents with adenopathy of the medial group of superficial inguinal lymph nodes on the right side. Which of the following is the primary site resulting in this finding?

- a. Right testis
- b. Right buttock
- c. Skin of lower limb
- d. Anal canal
- e. None of the above

7. Following a subcapital fracture of the neck of femur, an 80 y.o. man sustains avascular necrosis of the femoral head. This is most likely to be the consequence of interruption to the blood supply to the head from which of the following sources?

- a. Arteries from the trochanteric anastomoses in the retinacula
- b. Artery of the ligament of the head from the obturator artery
- c. Branches from the profunda femoris artery
- d. Branches from the pudendal artery
- e. Branches from the inferior gluteal artery

8. The muscle which provides the most control of hip joint movement during the act of sitting is

- a. Iliacus
- b. Semitendinosus
- c. Semimembranosus
- d. Gluteus maximus
- e. Gluteus minimus

9. Which of the following are correctly paired?

- a. Adductor brevis – femoral nerve
- b. Adductor longus – sciatic nerve
- c. Adductor magnus – saphenous nerve
- d. Adductor longus – obturator nerve
- e. Adductor magnus – femoral nerve

10. The great saphenous vein

- a. Is a continuation of the lateral marginal vein of the foot
- b. Runs between the 2 heads of gastrocnemius
- c. Pierces the cribriform fascia in the upper thigh
- d. Can be found immediately below and lateral to the pubic tubercle
- e. Does not communicate with varicosities in the superficial veins

11. With regard to the femoral triangle

- a. It is bounded by adductor longus and magnus
- b. It has the fascia lata lining its floor
- c. The femoral artery lies between the femoral vein and nerve
- d. It is bounded superficially by the lacunar ligament
- e. The femoral sheath contains only the femoral nerve and artery

12. the femoral artery

- a. Is separated from the hip joint capsule by fat only
- b. Is crossed by the femoral vein from medial to lateral as it descends
- c. Is found at the mid-inguinal point
- d. Gives off the medial circumflex femoral artery as its major branch

13. Gluteus maximus

- a. Is the deepest of the gluteal muscles
- b. Forms the skin crease of the gluteal fold
- c. Is supplied by L5, S1
- d. Medially rotates and extends the hip joint
- e. All of the above

14. Regarding the lymphatic drainage of the lower limb
- It is predominantly along the route of the small saphenous vein
 - Apart from a small area of skin over the heel it drains via the popliteal lymph nodes from below the knee
 - From the superficial inguinal lymph nodes it passes through the cribriform fascia to the deep inguinal nodes
 - Deep lymphatics follow veins
 - None of the above
15. The femoral nerve
- Has superficial branches, one of which supplies the hip joint
 - Supplies psoas major
 - Lies within the femoral sheath
 - Emerges from the medial side of psoas major
 - Is formed from the posterior divisions of the ventral rami of L2,3,4
16. Regarding the femoral vein
- It receives the great saphenous vein on its anterolateral surface
 - It drains into the internal iliac vein
 - It lies lateral to the femoral artery within the femoral sheath
 - It has no valves
 - It enters the inferior part of the femoral triangle posterior to the femoral artery
17. Contents of the femoral triangle include all except
- Genital branch of the genitofemoral nerve
 - Great saphenous vein
 - Pectineus
 - Profunda femoris artery
 - Anterior division of the obturator nerve
18. The adductor canal
- Is bounded by adductor brevis
 - Lies behind sartorius
 - Contains the femoral nerve
 - Commences just below the inguinal ligament
 - Contains the femoral artery which lies inferolaterally to the femoral vein in the lower part
19. The obturator nerve
- Emerges on the lateral border of psoas
 - Supplies obturator externus, adductor longus and the knee joint
 - Supplies obturator internus, adductor magnus and the hip joint
 - Runs inferior to the obturator artery in the obturator canal
 - All of the above
20. The femoral nerve
- Has an anterior division which supplies skin on the antero-medial surface of the thigh
 - Runs medial to the femoral artery at the level of the inguinal canal
 - Has the sural nerve as the terminal branch
 - Supplies the posterior half of adductor magnus
 - Supplies pectineus via its posterior division

21. With regard to the head of the femur

- a. The arterial supply comes mainly from the inferior gluteal artery
- b. The artery to the head assumes importance after age of 7 years
- c. Psoas lies posterior to the hip joint
- d. The anterior division of the obturator nerve gives partial supply to the hip joint
- e. None of the above

22. Regarding the bony pelvis

- a. The obturator groove is in the ischial bone
- b. The greater sciatic foramen transmits the obturator internus
- c. The pectineal line lies superior to the acetabulum
- d. The inguinal ligament inserts medially into the iliopubic eminence
- e. None of the above

23. The hip joint

- a. Is directed slightly forward along the axis of the femoral neck
- b. Is supplied by the femoral and obturator nerves only
- c. Has an articular surface which does not reach the rim of the acetabulum
- d. Bears weight mainly through the ischial bone
- e. Has a capsule which is strengthened anteriorly by the ischiofemoral ligament

24. The femoral triangle

- a. Has sartorius as its medial border
- b. Contains the posterior division of the obturator nerve
- c. Contains femoral nerve and vessels
- d. Has the lateral border of adductor longus laterally
- e. All of the above

25. The muscles supplied by the femoral nerve include all except

- a. Sartorius
- b. Iliacus
- c. Psoas major
- d. Pectineus
- e. Rectus femoris

26. Concerning the origins of the quadriceps femoris

- a. All 4 component muscles have an origin from the femur
- b. Vastus lateralis arises from the femur above intertrochanteric line and acetabulum
- c. Vastus medialis arises from femur and tendon of adductor longus
- d. Rectus femoris arises from 3 heads
- e. Vastus intermedius arises from shaft of femur and greater trochanter

27. The floor of the femoral triangle consists of all of the following except

- a. Psoas
- b. Iliacus
- c. Pectineus
- d. Adductor brevis
- e. Adductor magnus

28. Concerning iliacus

- a. It inserts into the greater trochanter of the femur
- b. It occupies and is attached to the whole of the iliac fossa
- c. Nerve supply is femoral nerve
- d. It acts to flex and laterally rotate the hip
- e. It has the femoral vein as its intermediate anterior relation

29. Psoas major

- a. Has a proximal attachment to the bodies discs and transverse processes of lumbar vertebrae
- b. Has the lumbar plexus embedded within it
- c. Has the lumbar arteries and veins running behind it
- d. Inserts into the lesser trochanter
- e. All of the above

30. Sartorius

- a. Arises from the ilium below the ASIS
- b. Is pierced by the lateral cutaneous nerve of the thigh
- c. Inserts into the styloid of the fibula
- d. Is supplied by the obturator nerve
- e. Flexes and medially rotates the thigh

31. Following Hilton's law, which nerve does not supply the hip joint

- a. Sciatic
- b. Obturator
- c. Inferior gluteal
- d. Nerve to rectus femoris
- e. Femoral

32. branches of femoral artery ???

33. Superficial inguinal lymph nodes drain all of the following except

- a. Anterior thigh
- b. Base of penis
- c. Testis

34. What goes through the lesser sciatic foramen?

- a. Piriformis
- b. Pudendal nerve
- c. Internal pudendal artery
- d. Superior gluteal artery
- e. Inferior gluteal artery

35. Adductor magnus is

- a. A bipennate muscle
- b. A component of the femoral triangle
- c. Supplied by the femoral nerve
- d. A composite muscle
- e. Attached by point of origin to the pectineal line of the pubic bone

36. Regarding the femoral artery and its branches

- a. Lies lateral to femoral sheath
- b. Femoral artery has three branches
- c. Profunda femoris artery lies anterior to the profunda vein
- d. The 4 perforating arteries supply all thigh muscles
- e. The profunda femoris artery supplies all anterior thigh muscles

37. Regarding the inguinal canal

- a. It has a roof formed by lower edges of internal oblique and transversus muscles
- b. The ilioinguinal nerve enters the canal through the deep ring
- c. Its posterior wall is formed by the external oblique aponeurosis
- d. Its conjoint tendon lies anterior to the superficial inguinal ring
- e. The superior epigastric artery crosses the posterior wall medial to the deep inguinal ring

38. Which of the following muscles is not in the floor of the femoral triangle

- a. Pectineus
- b. Adductor longus
- c. Sartorius
- d. Psoas
- e. Iliacus

39. Regarding movements of the hip joint

- a. Stability is reduced by the presence of the long femoral neck
- b. Medial rotation is achieved by obturator externus
- c. Sartorius is a lateral rotator
- d. Medial rotation is resisted by the iliotibial tract
- e. Abduction is not usually required in normal walking

40. Pectineus

- a. Arises from part of the obturator membrane
- b. Is inserted into the greater trochanter
- c. Lies posterior to the anterior division of the obturator nerve
- d. Forms one wall of the femoral ring
- e. Is a lateral rotator of the femur

41. The femoral nerve

- a. Supplies the skin over the lateral thigh
- b. Lies between the pectineus and psoas in the femoral triangle
- c. Is formed by the posterior divisions of the anterior rami of lumbar nerves 2,3 and 4
- d. Breaks into superficial and deep branches, separated by the medial circumflex femoral artery
- e. Supplies the adductor muscles

42. The sciatic nerve

- a. Lies on the ischial tuberosity
- b. Lies on the obturator internus
- c. Passes upper quadratus femoris
- d. Emerges from above piriformis
- e. Is comprised of L4, L5, S1, S2

43. The medial compartment of the thigh contains all of the following except

- a. The obturator nerve
- b. Obturator artery
- c. Gracilis muscle
- d. Obturator internus
- e. Obturator externus

44. Adductor magnus

- a. Is a composite muscle
- b. Has a hamstring part arising from ischiopubic ramus
- c. Has an adductor part arising from ischial tuberosity
- d. Has a tendinous attachment only onto adductor tubercle of femur
- e. Has a nerve supply including the sciatic and anterior division of obturator nerves

45. The skin over the femoral triangle is supplied by

- a. Ilioinguinal nerve
- b. Obturator nerve
- c. Medial femoral cutaneous nerve
- d. Lateral femoral cutaneous nerve
- e. Genitofemoral nerve

46. The great saphenous vein

- a. Is a continuation of the lateral marginal vein of the foot
- b. Runs between the 2 heads of gastrocnemius
- c. Pierces the cribriform fascia in the upper thigh
- d. Can be found immediately below and lateral to the pubic tubercle
- e. Does not communicate with varicosities in the superficial veins

47. The hip joint

- a. Derives its stability largely from the shape of its articular surfaces
- b. Has the ischiofemoral as its strongest ligament
- c. Is only supplied by the obturator and sciatic nerves
- d. Is limited in full extension by the pubofemoral ligament
- e. Is flexed largely by sartorius and rectus femoris

1. e
2. c
3. b
4. e
5. c
6. d
7. a
8. d
9. d
10. c
11. c
12. c
13. c
14. c
15. e
16. e
17. a
18. b
19. b
20. a
21. d
22. e
23. c
24. c

25. c
26. e
27. e
28. c
29. e
30. a
31. c
32. ??
33. c
34. b, c
35. d
36. e
37. A
38. C
39. C
40. D
41. C
42. B
43. D
44. A
45. E
46. C
47. A

Ankle and foot

1. The ankle joint is
 - a. Dorsiflexed by tibialis posterior and peroneus tertius
 - b. Fixed in its own axis of rotation
 - c. Crossed by the anterior tibial artery lateral to the extensor hallucis longus tendon
 - d. Supported by the lateral deltoid ligament
 - e. Innervated by the sural and superficial peroneal nerves

2. A 25 y.o. man is unable to plantarflex his foot. The most likely cause is damage to
 - a. The superficial peroneal nerve
 - b. L5 nerve root
 - c. Tibial nerve
 - d. Gastrocnemius
 - e. Soleus

3. Dorsalis pedis artery
 - a. Lies medial to the tendon of extensor hallucis longus
 - b. Lies lateral to the digital branch of the deep peroneal nerve
 - c. Crosses superficial to the tendon of extensor hallucis brevis
 - d. Terminates as the arcuate artery
 - e. Joins the lateral plantar artery to form the plantar arch

4. Following an injury to the leg, a patient is unable to dorsiflex their foot. Which nerve is most likely to be damaged?
 - a. Deep branch of the common peroneal nerve
 - b. Sural nerve
 - c. Superficial branch of the common peroneal nerve
 - d. Saphenous nerve
 - e. None of the above

5. Which is not a component of the second layer of the sole of the foot?
 - a. Tendon of flexor hallucis longus
 - b. Abductor hallucis
 - c. Flexor accessorius
 - d. The lumbrical muscles
 - e. Tendon of flexor digitorum longus

6. What movement occurs at the subtalar joint
 - a. Inversion
 - b. Eversion
 - c. Equinovarus
 - d. Plantarflexion
 - e. ?

7. What muscle cause dorsiflexion and inversion of the foot

- a. Tibialis anterior
- b. Tibialis posterior
- c. Extensor hallucis longus
- d. Peroneus tertius
- e. ?

8. What passes superficial to the superior flexor retinacula of the foot

- a. ?
- b. ?
- c. ?
- d. ?
- e. ?

9. Regarding the ossification centres of the bones of the foot, which is incorrect

- a. There are 3 at birth
- b. 5th metatarsus has 3 ossification centres
- c. Metatarsals have 2 centres
- d. ?
- e. ?

10. Regarding the structures passing beneath the flexor retinaculum of the ankle which is correct?

- a. Posterior tibial artery lies anterior to the flexor digitorum longus
- b. Flexor hallucis longus lies anterior to posterior tibial artery
- c. The posterior tibial artery lies anterior to the tibial nerve
- d. Flexor hallucis longus is the most anterior structure
- e. Flexor digitorum longus is the most posterior structure

11. Regarding the medial longitudinal arch

- a. Its stability is due to its bony structures
- b. Flexor hallucis brevis acts as a bowstring
- c. The plantar aponeurosis is of minimal importance
- d. Peroneus longus supports the posterior portion
- e. None of the above

12. At the ankle

- a. The deltoid ligament attaches to the tibia and the calcaneus
- b. The talus is more narrow anteriorly
- c. The capsule attaches to the neck of the talus
- d. In plantar flexion there is also eversion
- e. Dorsiflexion is produced by tibialis anterior and peroneus brevis

13. All of the following are ankle joint ligaments except

- a. Posterior tibio-fibular ligament
- b. Deltoid ligament
- c. Inferior transverse ligament
- d. Posterior talofibular ligament
- e. Oblique ligament

14. Concerning the innervation of the foot

- a. The medial plantar nerve supplies the first 3 lumbricals
- b. The skin of the first cleft is supplied by the superficial peroneal nerve
- c. The plantar digital nerves supply the nail bed
- d. All interossei are supplied by the medial plantar nerve
- e. The medial and lateral plantar nerves are branches of the common peroneal nerves

15. The talus

- a. Has its sole articulation with calcaneus in the talocalcaneonavicular joint
- b. Has a long plantar ligament attached to its plantar surface
- c. Has an upper articular surface narrow in front and broad behind
- d. Receives a good blood supply from dorsalis pedis, posterior tibial and peroneal arteries
- e. Is connected to navicular by the spring ligament

16. The ankle joint

- a. Is stabilised laterally by the deltoid ligament
- b. Relies on the fibula for weight bearing
- c. Acts purely as a hinge joint
- d. Has 3 ligaments radiating from the lateral malleolus
- e. Owes stability primarily to the shape of the tibiotalar articulating surface

17. The lumbrical muscles of the foot

- a. Pass forward on the lateral sides of the metatarsophalangeal joints
- b. Arise from the tendons of flexor digitorum longus
- c. Are all supplied by the lateral plantar nerve
- d. Have no real function in walking or running
- e. Do not insert into the extensor expansions

18. With regard to the calcaneus

- a. It is the largest of the tarsal bones
- b. It has a convex medial surface
- c. The peroneal trochlea is found on its medial surface
- d. It articulates with the talus, navicular and cuboid
- e. The upper surface carries articular surfaces on its posterior half

19. Regarding the ankle joint

- a. The lateral ligament has 2 layers
- b. The posterior talofibular ligament is strong and runs horizontally
- c. The deep portion of the medial ligament is triangular in shape
- d. The superficial portion of the medial ligament is rectangular in shape
- e. The nerve supply of the capsule is by the superficial peroneal nerve

20. Under the extensor retinaculum of the foot the most lateral structure is

- a. Sural nerve
- b. Dorsalis pedis artery
- c. Peroneus tertius
- d. Extensor digitorum longus
- e. Extensor hallucis longus

21. With regard to the cutaneous innervation of the lower limb
- a. Superficial peroneal nerve supplies the first inter-digital cleft
 - b. Sural nerve supplies the medial malleolus
 - c. Deep peroneal nerve supplies the third inter-digital cleft
 - d. The medial plantar nerve supplies a greater area than the lateral
 - e. Branches of the tibial nerve supply much of the dorsum of the foot

22. Regarding the ankle joint
- a. The capsule is attached anteriorly to the neck of the talus
 - b. It has a fixed rotation of axis
 - c. The weight bearing surfaces are the upper facet of the talus, the inferior facet of the tibia and the medial and lateral malleoli
 - d. The lateral ligament is made up of three separate bands that all insert into the talus
 - e. In full plantarflexion a significant amount of inversion and eversion is possible at the ankle joint

23. All of the following structures pass deep into the superior extensor retinaculum at the ankle except
- a. Extensor digitorum longus
 - b. Deep peroneal nerve
 - c. Anterior tibial artery
 - d. Superficial peroneal nerve
 - e. Peroneus tertius

24. The dermatome supplying the great toe is usually supplied by
- a. L3
 - b. L4
 - c. L5
 - d. S1
 - e. S2

- | | |
|---------------------|-------|
| 1. c | 13. e |
| 2. c | 14. c |
| 3. e | 15. d |
| 4. a | 16. d |
| 5. b | 17. b |
| 6. a/b | 18. a |
| 7. a | 19. b |
| 8. ? | 20. c |
| 9. ? (a, b, c true) | 21. d |
| 10. c | 22. a |
| 11. e | 23. d |
| 12. c | 24. c |

Knee and leg

1. Posterior tibial artery

- a. Divides superior to the flexor retinaculum
- b. Divides into the medial and lateral plantar arteries
- c. Branches from 2 plantar arteries in the foot
- d. Lateral plantar branch supplies the big toe
- e. Divides inferior to the flexor retinaculum

2. Regarding the knee joint

- a. middle geniculate artery supplies the cruciate ligament
- b. Bursa beneath medial head gastrocnemius usually communicate with joint
- c. Rotation takes place below the menisci
- d. Coronary ligament attaches menisci to the articular margins of tibia and femur
- e. All of the above

3. Popliteal fossa

- a. The floor is provided by biceps femoris
- b. The sural communicating nerve pierces the roof
- c. Popliteal lymph nodes lie next to the popliteal artery
- d. The recurrent genicular nerve pierces the roof
- e. Superior and inferior geniculate nerves supply the medial ligament

4. The stability of the weight bearing flexed knee is maintained by

- a. Anterior cruciate ligament
- b. Ilio-tibial tract
- c. Posterior cruciate ligament
- d. Popliteus and posterior cruciate ligament
- e. Arcuate popliteal ligament and anterior cruciate ligament

5. The short saphenous vein

- a. Lies anterior to the lateral malleolus
- b. Is accompanied by the saphenous nerve
- c. Drains into the great saphenous vein
- d. Drains to the lateral margin of the foot
- e. Lies deep to the deep fascia of the calf

6. Which is not true of the tendo achilles

- a. It inserts into the middle third of the posterior surface of the calcaneus
- b. It is invested in a synovial sheath
- c. It is formed from the soleus and gastrocnemius
- d. A bursa lies between the tendon and the upper third of calcaneus
- e. A bursa lies between it and the deep fascia near its insertion

7. The anterior tibial artery

- a. Pierces the interosseous membrane
- b. Supplies the lateral compartment of the leg
- c. Lies lateral to the deep peroneal nerve
- d. Lies lateral to tibialis anterior
- e. Gives the nutrient artery to the tibia

8. The suprapatellar bursa

- a. Does not communicate with the knee joint
- b. Lies in front of the vastus intermedius muscle
- c. Extends 5cm or more above the patella
- d. Lies deep to the patella retinacula
- e. None of the above

9. Regarding the extensor compartment of the lower leg, all of the following statements are true, except

- a. The tibialis anterior muscle is supplied by the deep peroneal and recurrent genicular nerves (L4)
- b. Extensor digitorum longus and peroneus tertius muscle lie lateral to the tibialis anterior artery throughout
- c. The deep peroneal nerve arises within the peroneus longus muscle
- d. The extensor digitorum longus dorsiflexes the lateral toes
- e. The extensor hallucis longus arises from the middle two-fourths of the tibia and adjacent interosseous membrane

10. Regarding lower leg structures

- a. The anterior tibial artery lies lateral to tibialis anterior
- b. The deep peroneal nerve originates in the popliteal fossa
- c. Peroneus longus is supplied by the deep peroneal nerve
- d. Extensor digitorum longus lies medial to tibialis anterior
- e. The tibia receives a nutrient vessel from the anterior tibial

11. Tibialis anterior inserts into

- a. Navicular
- b. Medial cuneiform and base of first metatarsal
- c. Lateral cuneiform and base of 5th metatarsal
- d. Middle three metatarsals
- e. Medial cuneiform and base of 1st phalanx

12. Tibialis posterior inserts into

- a. The base of the first metatarsal
- b. The navicular
- c. Base of 2nd and third metatarsals
- d. The cuboid
- e. None of the above

13. Factors that stabilise the patella include all except

- a. Forward prominence of the lateral condyle
- b. Forward prominence of the medial condyle
- c. Medial patellar retinacular fibres
- d. Vastus medialis fibres that insert into the lowest part of the patella
- e. The tone in vastus medialis

14. Popliteus muscle

- a. Is a weak flexor of the knee
- b. Is intracapsular

15. Regarding the menisci of the knee joint

- a. Posterior cruciate is medial
- b. Medial meniscus is avascular
- c. Fold of synovium lies posterior to anterior cruciate
- d. Anterior horn of medial meniscus is attached to medial tibial condyle

16. Which ligament forms part of the knee capsule

- a. Lateral collateral
- b. Medial collateral
- c. Anterior cruciate
- d. Posterior cruciate
- e. Popliteus tendon

17. With regard to peroneus longus muscle

- a. The tendon lies below peroneus brevis in the lateral compartment of the leg
- b. It is supplied by the superficial peroneal nerve (L5, S1)
- c. Arises from the lower 2/3 s of the peroneal surface of fibula
- d. The action is to invert the foot
- e. It has a broad tendon in comparison to the narrower tendon of peroneus brevis

18. Tibialis anterior

- a. Everts the foot
- b. Is supplied by the superficial peroneal nerve
- c. Arises from the lower 2/3s of the tibia and interosseous membrane
- d. Lies medial to the anterior tibial artery
- e. Lies lateral to peroneus tertius

19. Of muscles and tendons crossing the knee

- a. Popliteus medially rotates the femur to unlock the knee from extension
- b. Soleus crosses the posterolateral aspect of the joint
- c. Semitendinosus tendon passes anterior to the medial condyle
- d. Gluteus maximus crosses the knee joint by way of the iliotibial tract
- e. Biceps femoris inserts into the anterolateral aspect of the tibia

20. Regarding innervation of flexion/extension of the knee

- a. All muscles of the quadriceps femoris are supplied by L3/4
- b. Vastus medialis and intermedius are supplied by the same branch of the femoral nerve
- c. Flexion of the knee by hamstrings is supplied solely by tibial component of sciatic nerve
- d. Flexor innervation of the knee can be tested by knee jerk L3
- e. Traumatic fracture dislocation of hip affects knee extension greater than flexion

21. Tibialis anterior

- a. Is supplied by the superficial peroneal nerve
- b. Has a synovial sheath that continues below superior extensor retinaculum
- c. Dorsiflexes and everts the foot
- d. Inserts into the lateral cuneiform
- e. Originates from the tibia and fibula

22. With regard to the stability of the knee joint

- a. The posterior cruciate ligament prevents the femur from slipping posteriorly on the tibia
- b. The lateral collateral ligament is more prone to damage than the medial
- c. The medial meniscus is more prone to damage than the lateral
- d. The integrity of the anterior cruciate ligament is most important when walking down stairs
- e. The fit of the articular surfaces of the tibia and femur is the most important factor in providing stability to the knee

23. The ligament important in producing the screw home position in full extension of the knee is the

- a. Anterior cruciate ligament
- b. Posterior cruciate ligament
- c. Arcuate popliteal ligament
- d. Patellar retinacula
- e. All of the above

24. The cruciate ligaments would be anaesthetized by injury to

- a. Femoral nerve
- b. Common peroneal nerve
- c. Tibial nerve
- d. Obturator nerve
- e. None of the above

25. The cruciate anastomosis

- a. Is supplied by the inferior branch of the medial circumflex femoral artery
- b. Is supplied by the descending branch of the first perforating artery
- c. Begins at the level of the greater trochanter
- d. Is supplied by the transverse branch of the lateral circumflex femoral artery
- e. Gives blood supply to the head of the femur

26. In the popliteal fossa

- a. The sural nerve branches from the common peroneal nerve
- b. The roof is formed by biceps femoris
- c. The popliteal vein lies between the popliteal artery and tibial nerve
- d. The inferomedial border is soleus
- e. The popliteal artery runs vertically

27. Politeus

- a. Arises from the tibia above the condyles
- b. Slopes upwards and medially
- c. Inserts into the lateral meniscus
- d. Is innervated by a branch of the common peroneal nerve
- e. Acts to "lock" the knee in full extension

28. With regards to the knee joint

- a. The medial collateral ligament extends 8cm below the joint margin
- b. The medial collateral ligament is extra-articular
- c. The tendon of politeus is intra-articular
- d. The lateral meniscus is more C-shaped
- e. All of the above

29. Tibialis anterior

- a. Dorsiflexes and everts the foot
- b. Arises from the upper 2/3s of the fibula
- c. Inserts into the medial cuneiform
- d. Shares its site of insertion with peroneus tertius
- e. Is supplied by L5,S1

30. In the lateral compartment of the leg

- a. The muscles are supplied by the deep peroneal nerve
- b. The peroneus longus muscles arise only from the fibula
- c. The peroneal muscle tendons are bound at the lateral malleolus by the inferior peroneal retinaculum
- d. The peroneal muscles share a common synovial sheath at the lateral malleolus
- e. The blood supply is from the anterior tibial artery

1.	6.	11.	16.	21. B	26. C
2.	7.	12.	17.	22. C	27. C
3.	8.	13.	18.	23. A	28. E
4.	9.	14.	19. D	24. C	29. C
5.	10.	15.	20. A	25. D	30. D