

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1 (Photo)	Identify the bones visible on this x ray? (prompt to stay above C spine if needed)  Prompt: what are the other facial bones that may not be visible	<b>Frontal**</b> <b>Nasal</b> <b>Maxilla **</b> <b>Zygoma**</b> <b>Sphenoid</b> <b>Mandible**</b> <b>Lacrimal</b> <b>Vomer</b> <b>Ethmoid</b>	Need 5 to pass frontal, mandible, maxilla, zygoma Plus one other
Question 2: (photo)	Identify the sinuses on this X-ray	<ul style="list-style-type: none"> <li>• Frontal</li> <li>• Maxillary</li> <li>• Ethmoid</li> <li>• Mastoid ** (prompt if necessary)</li> </ul>	3/4 to pass
Question 3: (photo)	Name this structure (point to infra orbital foramen). What passes through it, and what does it supply?	<ul style="list-style-type: none"> <li>• <b>Infra orbital nerve</b></li> <li>• <b>Mucosa of max sinuses</b></li> <li>• <b>premolars, incisors, canines</b></li> <li>• <b>skin of cheek</b></li> <li>• <b>skin of lat nose</b></li> <li>• <b>skin/conjunctiva of inf eyelid</b></li> <li>• <b>ant/inf nasal septum</b></li> <li>• <b>Skin of upper lip</b></li> </ul>	3 to pass

rompt: Bone: Mid Cervical and Mid Lumbar Vertebrae, not articulated

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Question 1:	<p>a. Describe the features of this bone (Lumbar)</p> <p>b. What region of the spine is this from</p> <p>c. what is different about this bone (cervical)</p>	<p>Body: pedicles</p> <p>facet joints including articular facets, laminae</p> <p>Processes: transverse and posterior</p> <p>Spinal canal,</p> <p>vertebral artery (lateral foramina) for cervical only</p> <p>Key differences:</p> <p>Smaller body</p> <p>Longer thinner and downward sloping spinous process</p> <p>facet joints more horizontal allow greater range of movement</p> <p>foramen transversarium</p> <p>larger canal</p> <p>uncinate process</p> <p>anterior and posterior transverse process</p> <p>no accessory tubercle</p>	<p>4 Major features to pass.</p> <p>Correctly identifies cervical and lumbar describing key differences</p> <p>4 to pass</p>
Question 2:	<p>What principle movements occur between this vertebra (cervical) and its neighbours</p> <p>Prompt if required: what are the movements at the facet joints</p>	<p>Cervical: relatively flat facet joints permitting free movement in all directions: rotation, flexion and lateral flexion.</p>	<p>Correct interpretation of facet joint orientation and functional result.</p>

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

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Question 1: (Photo)	Identify the major vascular structures in this picture.  (Prompt if required)	<p>Superior vena cava (26)  <b>Left (13) and right (18) brachiocephalic vein (13)</b>                      Left and right subclavian veins (24)                      Left internal jugular vein (8)                      Brachiocephalic trunk (4)                      Right common carotid artery (19)                      Right subclavian artery (21)                      Left common carotid artery (14)                      Thyrocervical trunk (32) and its branches: inferior thyroid art. (6), ascending cervical art (3); internal thoracic art. (9)</p>	Need 6/11 bold to pass
Question 2: (Not related to photo)	Describe the course of the right subclavian artery.	<ul style="list-style-type: none"> <li>• Arises from <b>brachiocephalic trunk</b></li> <li>• Runs <b>posterior to right sternoclavicular joint</b> as ascends through thoracic inlet</li> <li>• Arches superolaterally and <b>passes posterior to anterior scalene muscle</b> (relationship to this muscle defines its 3 parts)</li> <li>• Descends <b>posterior to middle of clavicle and crosses over 1<sup>st</sup> rib to become axillary artery</b></li> </ul>	3/4 Bold required to pass
Question 3: (Not related to photo)	Name the branches of the subclavian artery.	1 <sup>st</sup> part: <ul style="list-style-type: none"> <li>• <b>Vertebral artery</b></li> <li>• <b>Internal thoracic artery</b></li> <li>• <b>Thyrocervical trunk</b></li> </ul> 2 <sup>nd</sup> part: <ul style="list-style-type: none"> <li>• <b>Costocervical trunk</b></li> </ul> 3 <sup>rd</sup> part: <ul style="list-style-type: none"> <li>• <b>Dorsal scapular artery</b></li> </ul>	2/3 of part 1 bold to pass

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Q 1:	<p>Describe the palmar fascial spaces.</p> <p>Prompt: Direct to fascial spaces not compartments</p>	<p>i) Midpalmar:</p> <p>Underlies central fascial compartment</p> <p>Related distally to synovial sheaths 3-5<sup>th</sup> digits</p> <p>Related proximally to common flexor sheath (as it emerges from carpal tunnel)</p> <p>ii) Thenar:</p> <p>Underlies thenar compartment</p> <p>Related distally synovial flexor tendon sheath of the index finger</p> <p>Related proximally to common flexor sheath distal to the carpal tunnel</p>	3 of 6 to pass
Q 2:	<p>What are the contents of the central fascial compartment of the palm?</p>	<p>Flexor tendons and sheaths</p> <p>Lumbricals</p> <p>Superficial palmar arterial arch</p> <p>Digital vessels</p> <p>Digital nerves</p>	2 of 5 to pass
Q3:	<p>What are the boundaries of the central fascial compartment of the palm?</p>	<p>Lateral – fibrous septum from palmar aponeurosis to 3<sup>rd</sup> metacarpal</p> <p>Medial – fibrous septum from palmar aponeurosis to 5<sup>th</sup> metacarpal</p> <p>Palmar aponeurosis superficial [covers it]</p> <p>Inferior mid palmar space</p>	2 of 4

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1:	Name the intracranial structures that are visible on this non contrast CT Prompt 4 <sup>th</sup> Ventricle	Cerebellum (right and left hemispheres united by central vermis). The pons. The 4 <sup>th</sup> ventricle and pre-pontine cistern. The right & left temporal lobes in the middle cranial fossae. The mastoid, sphenoid and ethmoid sinuses.	Cerebellum, pons & 4 <sup>th</sup> ventricle to pass.
Question 2:	Describe the posterior circulation of the brain <i>Prompt: What arteries contribute to the posterior circulation of the brain</i>	The vertebral As (originating from the subclavian As) give off the post and ant inf cerebellar As then unite (at the caudal border of the pons) to form the basilar A. The basilar A ascends to the superior border of the pons giving off the sup cerebellar A. It terminates by dividing into the 2 post cerebral As. The post communicating As join the post cerebral As to the middle cerebral A (& hence to the ant circulation).	Vertebral, basilar, post cerebral and post communicating As to pass.
Question 3:	What areas of the brain do the main arteries of the posterior circulation supply	Vertebral As -> cranial meninges & cerebellum. Basilar A -> brainstem, cerebellum & cerebrum. Post cerebral As -> inf aspect of cerebral hemispheres & occipital lobe. Post communicating As -> optic tract, cerebral peduncle, int capsule & thalamus.	Must correctly identify that the vertebral and basilar As -> cerebellum and post cerebral As -> inf of the cerebral hemispheres to pass.

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Question 1:	This is a right or left clavicle. Demonstrate the muscular attachments this bone	<p>Deltoid – lateral 1/3 anterior</p> <p>Trapezius – lateral 1/3 posterior</p> <p>Pectoralis Major – medial 1/3 anterior - inferior</p> <p>Sternocleidomastoid – clavicular head, medial 1/3 ant - superior</p> <p>Subclavius – inferior, middle 1/3 (medial according to text)</p>	Name all except subclavius <b>and</b> locate trapezius as posterior, SCM as anterior and deltoid as lateral attachments.
Question 2:	What are the anatomical relations of the medial third of the clavicle.	<p>Medial: Sternoclavicular joint, manubrial notch</p> <p>Posterior: First rib, brachiocephalic vein (medial to scalenus anterior), internal jugular vein, subclavian vein (over scalenus anterior), subclavius, phrenic nerve (more posterior)</p> <p>Apical pleura, thoracic duct (left)</p> <p>Anterior/superior / inferior: Subcutaneous tissue, skin</p>	Brachiocephalic or Subclavian vein <b>and</b> name 2 others to pass
Question 3:	Describe the course of the subclavian vein	<p>Becomes subclavian vein from axillary vein medial to the outer border of the first rib.</p> <p>Courses medially posterior to clavicle, superior to flat section of first rib (groove). Lies immediately anterior to Scalenus anterior which separates it from the Subclavian artery. Becomes brachiocephalic vein at medial border of Scalenus Anterior when it joins the IJV.</p>	Originates from Axillary vein <b>and</b> becomes Brachiocephalic vein <b>and</b> demonstrates course posterior to clavicle to pass.

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Question 1:	Name the bones of the foot Which of these constitute the medial longitudinal arch	<ul style="list-style-type: none"> <li>• <b>Medial</b> – calcaneus, talus, navicular, 3 cuneiforms, 3 metatarsals</li> </ul>	Name all the bones with prompt if necessary Name major bone groups for med arch
Question 2:	What are the major factors contributing to the stability of the bony arches of the foot	<p><b>Passive</b></p> <ul style="list-style-type: none"> <li>• <b>Bony</b> – shape of united bones Talus is the “keystone”</li> <li>• <b>Fibrous</b> (ligamentous) <ul style="list-style-type: none"> <li>Plantar calcaneonavicular (Spring) lig</li> <li>Plantar calcaneocuboid (short plantar) lig</li> <li>Long plantar ligament</li> <li>Plantar aponeurosis</li> </ul> </li> </ul> <p><b>Dynamic</b></p> <ul style="list-style-type: none"> <li>• Intrinsic muscles</li> <li>• <b>Long tendons</b> <ul style="list-style-type: none"> <li>Flexor Hallucis &amp; FDL – longitudinal arch</li> <li>Fibularis longus and Tib Post</li> </ul> </li> </ul>	Bold plus three lig and three tendons to pass
Question 3:	What is the function of the longitudinal arches of the foot	<ul style="list-style-type: none"> <li>• Shock absorbtion</li> <li>• Distribute bodyweight over the pedal platform</li> <li>• Act as springboards when walking, running and jumping</li> </ul>	2/3 to pass



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Question 1: (Photo)	What structures can you identify in this photograph?	<p>IVC Aorta Ureters Bladder Common iliacs Internal/ext iliacs Inguinal ligament Femoral vessels Testicular vessels Psoas</p> <p>If not already identified, point to ureter and ask, 'what is this structure?'</p>	Need 6 unprompted to pass
Question 2: Can demonstrate on photo	Describe the course of the ureters, and identify the 'narrow' points.	<ul style="list-style-type: none"> <li>• 25 – 30 cm long</li> <li>• run from renal hila inferiorly</li> <li>• marked on x ray as running medial to tips of transverse processes</li> <li>• pass over pelvic brim at bifurcation of common iliacs</li> <li>• on lat wall of pelvis, inclining medially to insert post wall of bladder at VUJ</li> <li>• Narrow points are at..PUJ               <ul style="list-style-type: none"> <li>• ...pelvic brim</li> <li>• ....VUJ</li> </ul> </li> </ul>	4/7 and 2 narrow points to pass
Question 3: (Not related to photo)	What is the arterial blood supply of the ureter?	<p>Arterial Renal arteries in upper portion Gonadal vessels, sometimes in upper Mid portion from branches off abd aorta Inferiorly by branches of common iliacs</p> <p>Venous Renal and gonadal vessels.</p>	Renal and gonadal to pass

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Question 1:	Describe the drainage of the superficial lymphatics of the upper limb?	<p>Superficial lymphatics originate from lymphatic plexuses in the hand &amp; ascend mostly with the superficial cephalic &amp; basilic Vs.</p> <p>Some accompanying the basilic v enter the <b>cubital</b> LNs.</p> <p>Efferent vessels from here drain -&gt; <b>humeral</b> (lat) axillary LNs (-&gt; <b>central</b> axillary LNs -&gt; <b>apical</b> axillary LNs).</p> <p>Most travel with cephalic v and enter the <b>apical</b> axillary LNs, but some enter the <b>deltpectoral</b> LNs earlier.</p>	Travel with superficial veins <b>and</b> drain into axillary LNs to pass.
Question 2:	Describe the drainage of the deep lymphatics of the upper limb.	<p>Deep lymphatics accompany the major deep vs in the UL &amp; terminate in the <b>humeral</b> (lat) axillary LNs.</p> <p>These drain -&gt; <b>central</b> axillary LNs - &gt; <b>apical</b> axillary LNs -&gt; supraclavicular LNs -&gt; R &amp; L subclavian lymphatic trunks.</p>	Travel with deep veins <b>and</b> drain into axillary LNs to pass.
Question 3:	How do the right & left subclavian lymphatic trunks drain?	<p>The R subclavian lymphatic trunk may be joined by R jugular &amp; bronchomediastinal trunks to form the R lymphatic duct <b>or</b> it may enter the right venous angle (junction of int jug &amp; subclavian vs) independantly.</p> <p>The L subclavian lymphatic trunk joins the thoracic duct.</p>	R subclavian LT -> right venous angle <b>and</b> the L subclavian LT -> thoracic duct.

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Question 1: (Photo)	Please identify the intra-abdominal structures visible in this CT scan	Liver Duodenum Small bowel Spleen L and R kidney Aorta Crura of diaphragm Pancreas Splenic vein IVC  If not already identified as pancreas.. what is this structure?	Need 6/10 to pass
Question 2: (Not related to photo)	What are the relations of the pancreas? You will not be able to see all of them.	<ul style="list-style-type: none"> <li>• Posteriorly...ivc, portal vein, r renal vein/artery, bile duct, sup mesenteric vessels, aorta, L2 vertebrae, L kidney and L adrenal</li> <li>• Lateral to right...duodenum 'C' shape around head</li> <li>• Lat to left...hilum of spleen</li> <li>• Anteriorly...stomach, peritoneum, lesser omentum, bowel, sup and inf panc-duod arteries</li> </ul>	6 to pass

rompt: Bone: Mid Thoracic Vertebra, not articulated

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1:	Describe the features of this bone  If required prompt: What region of the spine does this bone come from. Begin with the features.	Body: location of intervertebral disc attachments pedicles, facet joints including articular facets, laminae, articular facets for ribs on body and transverse process Processes: transverse and posterior Spinal canal	4 Major features to pass.  Identify thoracic vertebra
Question 2:	How does this differ from vertebrae in other regions	Cervical: smaller body, larger canal, very small and often bifid spinous process, canal for vertebral artery, facet joints flatter, no ribs.  Lumbar: larger body, smaller canal, spinous process square and more directly posterior, no articulations for ribs, more prominent transverse processes.  Sacral: only mention to dismiss	Minimum 3 differences for each.  Reasonable description of differences.

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

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Question 1: (Photo)	On this photo, identify the structures bound by the extensor retinaculum	From radial to ulnar, grouped by common synovial sheaths APL (2)/EPB (11) ECRL (6)/ECRB (5) EPL (12) Ext indicus (10)/Ext digitorum (9) Ext digiti minimi (8) Ext carpi ulnaris (7)	Need 6/9 to pass
Question 2: (Not related to photo)	What is the motor supply of these muscles?.	<ul style="list-style-type: none"> <li>• All radial/post interosseus nerve (C7, C8, except ECRL which is C6 too)</li> </ul>	
Question 3: (Not related to photo)	Describe the sensory supply of the dorsum of the hand.	<ul style="list-style-type: none"> <li>• Ulnar...medial 1 ½ digits via palmar cut branch</li> <li>• Radial....sup branch...lat half of dorsum of hand excluding distal digits.</li> <li>• Median...dorsum of radial 3 ½ digits, via dorsal branches of palmar dig nerves</li> </ul>	

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1: (Discussion)	Define the boundaries of the anterior triangle of the neck.	<ul style="list-style-type: none"> <li>• Anterior border of sternocleidomastoid</li> <li>• Midline of neck</li> <li>• Inferior border of the mandible</li> </ul>	All 3 to pass
Question 2:	(a) Describe the surface markings of the carotid sheath in the neck. (b) What are the contents of the carotid sheath?	<p>(a) Carotid sheath runs along a line joining the sternoclavicular joint to a point midway between the mastoid process and the angle of the mandible.</p> <p>(b) Common carotid artery, internal jugular vein, vagus nerve</p>	All to pass
Question 3:	Describe the location of the thyroid gland in the neck.	<ul style="list-style-type: none"> <li>• Located anteriorly in the neck at level of C5-T1</li> <li>• Lies deep to sternothyroid and sternohyoid muscles</li> <li>• Right and left lobes sit anterolateral to the larynx and trachea</li> <li>• A thin isthmus unites the two lobes across the trachea (usually at 2<sup>nd</sup> and 3<sup>rd</sup> tracheal rings)</li> </ul>	2/3 bold to pass