

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
<p>Question 1: Soft tissues on CXR</p> <p>Structures transected at the sternal angle</p>	<p>Demonstrate the borders of the mediastinum on this Xray</p> <p>In the supine position, which mediastinal structures are located at the same level as the sternal angle. (Prompt: What mediastinal structures would you see if you looked at a transverse slice through the chest at the level of T4-5?)</p>	<p>SVC RA RV (Apex) (L ventricle) L Auricular appendage Pulmonary trunk Aorta R brachiocephalic v.</p> <p>Mediastinal structures Carina (bifurcation) Division of pulmonary trunk Reflection of the pericardium SVC (enters R atrium) Hila of the lungs Transverse fissure of R lung Ascending aorta becomes arch Arch becomes descending Aorta Phrenic nerve Vagus nerve L recurrent laryngeal nerve origin Azygos vein Thoracic duct (crosses from R to L) Pleura approaches the midline anteriorly</p>	<p>At least 6 correct to pass</p> <p>At least 6 correct to pass</p>
<p>Question 2: BONE: Sacrum</p>	<p>a) Identify the features of this bone?</p>	<p>Sacrum consists of 5 fused bones and the coccyx 4 pairs of sacral foramina – S1-S4 anterior larger than posterior Ala Sacroiliac joint Superior Articular facets Lumbrosacral joint 5 Vertical lines – median, intermediate and lateral</p>	<p>Any 4 to pass</p>

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<p>Question 3:</p> <p>Model: Hand</p>	<p>Could you please identify the muscular structures visible in the hand of this model? (Prompt away from thenar/hypothenar muscles)</p> <p>Could you demonstrate the actions produced by the lumbricals and the interossei and describe their innervation?</p> <p>Could you demonstrate the origins and insertions of the short muscles of the hand?</p>	<p>Potentially 10 ..3 thenar (op, apb, fpb) 3 hypothenar (adm, fdmb, odm), Add Poll, Lumbrical, Dorsal and palm int 6/10</p> <p>Lumbs do Z, and PAD/ DAB for interossei, along with extension.. actions are combined to produce Z All deep br ulnar, except for lat 2 lumbs..median nerve..,</p> <p>Lumb..orgn1,2 lat side of lat 2 tendons of fdp, 3, 4 bipennate from med 3 tend fdp, dors int orgn bipenn from adjacent mc's, insert base prox ph, ext expans, palm int palm surface 2,4,5 mc, ins as for dors, 2,4,5</p>	<p>5 to pass</p> <p>All to pass</p> <p>Bonus</p>
<p>Question 4</p> <p>Photo: Gluteal Area</p>	<p>a) This is a photograph of the gluteal region. Identify the structures.</p> <p>Prompt if needed – what is this (Sciatic Nerve)</p>	<p>15-Piriformis Sciatic N: 23-Tibialpart; 1-Common Fibular (Peroneal) part</p> <p>2-Gluteus maximus; 16-Post Fem Cutaneous N 13-Obturator Externus 18-Quadratus femoris 7-Inferior gluteal art. 17-Pudental N; 9-Internal Pudental art; 11-N to Obturator Internus 20-Superior Gamellus; 14-Obturator Internus 6-Inferior Gamellus 21-; 22-; 8-Inferior gluteal N 3-Gluteus medius; 4-Gluteus minimus 5-Greater Trochanter Femur 19-Sacrotuberous Ligt 10-Ischael Tuberosity</p>	<p>2 Bold plus 2 others to pass</p>

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<p>Question 4 cont'd</p> <p>Photo: Gluteal Area</p>	<p>b) Describe the course of the Sciatic Nerve, and the muscles it supplies.</p>	<p>Enters gluteal region via greater sciatic foramen inferior to piriformis and deep to gluteus maximus; descends in midline posterior thigh deep to biceps femoris; bifurcates into tibial and common fibula (peroneal) nerves at apex of popliteal fossa</p> <p>No supply in gluteal region. Supplies all muscles of posterior compartment of thigh (common fibula short head biceps, tibial division all the rest)</p>	<p>Bold to pass</p>
<p>Question 5:</p> <p>Discussion: Facial Nerve</p>	<p>What is the motor supply of the muscles of facial expression?</p> <p>Describe its course.</p> <p>Discuss the non motor component of the facial nerve.</p>	<p>7th cranial nerve</p> <p>Temporal bone Stylomastoid foramen -posterior auricular</p> <p>Parotid gland - temporal - zygomatic - buccal - marginal mandibular - cervical</p> <p>Intermediate nerve Taste join lingual nerve ant 2/3 tongue Parasympathetic Somatic sensory</p>	<p>Facial n and 3 terminal branches</p> <p>Bonus question.</p>

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<p>Question 1: CT Head</p>	<p>Identify the non – bony features on this CT scan.</p> <p>Which bony sinuses are shown?</p> <p>What is the blood supply of the cerebellum?</p>	<p>Orbits Temporal lobes in middle cranial fossa Pons 4th ventricle Cerebellum and vermis</p> <p>Ethmoid, sphenoid, mastoid</p> <p>Vertebral arteries – basilar artery – post cerebral Ant & post inferior cerebellar art Superior cerebellar art</p>	<p>Need temporal lobe, pons and cerebellum</p> <p>2/3</p> <p>Need posterior circulation</p>
<p>Question 2 Bone: Femur</p>	<p>a) Identify the landmarks of this bone</p> <p>b) Demonstrate the attachments of the adductor muscles of the hip.</p>	<p>Head, fovea, neck Greater trochanter, lesser trochanter, Trochanteric fossa intertrochanteric line intertrochanteric crest pectineal line shaft and/or linea aspera medial / lateral supracondylar lines adductor tubercle medial / lateral epicondyles medial / lateral condyles intercondylar fossa</p> <p><u>Adductor longus</u> - Middle 1/3 linea aspera <u>Adductor brevis</u> - Pectineal line and proximal linea aspera <u>Adductor magnus</u> - Adductor part – linea aspera, medial supracondylar line Hamstring part (not strictly in this Q) adductor tubercle [Gracilis] Not femur (tibia)] <u>Pectineus</u> Pectineal line inferior to lesser trochanter <u>Obturator Externus</u> Trochanteric fossa</p>	<p>Bold plus 3 others to pass</p> <p>3 to pass</p>

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Question 3: Model Thumb	a. Could you please identify the muscles of the thenar eminence, and demonstrate their origins and insertions? b. Please demonstrate the movements produced by the thenar muscles. What nerves innervate these muscles?	APB, FPB, OP (all originate fl ret and scaphoid/trap tubercles) apb inserts lat side base prox phal, op inserts lat 1 st mc, and both heads fpb insert lat prox phal. base Op opposes (mc to middle palm, rotates), abd abducts, helps opposition, fl flexes...all recurrent br. Med n, except dp hd fpb...deep br ulnar	3/6 pass
Question 4: Photo: Anterior Triangle neck	a. Define the boundaries of the anterior triangle of the neck. b. The internal jugular vein has been removed. Name some structures in the anterior triangle c. Name the branches of the external carotid	SCM, midline, mandible Muscle – SCM, strap muscles Lymph nodes – jugulo-digastric Artery – common carotid, int and ext carotid, sup thyroid, lingual, facial Vein – Branchiocephalic, subclavian Nerve – recurrent laryngeal Ant. Asc. pharyngeal, superior thyroid, lingual, facial Post. Occipital, post auricular, superficial temporal, maxillary	(need all 3) 3 to pass 2 to pass
Question 5: Surface Anatomy of the Pleura	Describe the surface anatomy of the parietal pleura. What is the clinical significance of the attachment of the pleura? (Prompt – Are there any parts of the pleura that are more likely to be injured?)	Sternoclavicular joint to midline at SM joint Passes inferiorly parasternally to 6 th ICC on R and 4 th ICC on left where it deviates to the left. 8 th rib in MCL 10 th rib in MAL 12 th rib in PAL Small section medial to this is inferior to the 12 th rib Posteriorly - parallel to vertebral column to T1 Cupola rises 2-3 cm above medial 1/3 of clavicle at the neck of the 1 st rib Cervical pleura may be injured Deviation of pleura to the left provides a window for pericardiocentesis without traversing the pleura. The attachment of the pleura at a lower level than the lungs (posterolaterally) favours collection of pleural fluid in this area (drainage, clinical findings). Penetrating injuries to the upper lumbar region	At least 5 correct to pass At least 2 to pass

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<p>Question 1 XR: Pelvis</p>	<p>Identify the bony features of this x-ray</p> <p>Describe the anatomy of the iliopsoas muscle.</p>	<p>Iliac crest, Ala of ilium Sacro iliac joint, Sacrum Lumbar vertebrae Pelvic brim Anterior superior iliac spin Anterior inferior iliac spine Ischial spine Ischial turberosity Obturator foramen Acetabular fossa Superior rami Inferior rami Symphysis pubis</p> <p>Iliopsoas – consists of Iliacus & Psoas major Psoas major: Superior attachment (a) Transverse process of lumbar vertebrae (b) Sides of vertebral bodies T12-L5 (c) Intervertebral discs T12- L5 Inferior attachment (a) Single tendon to lesser trochanter of femur Innervation (a) Anterior rami of L1, L2, L3</p> <p>Iliacus Superior attachment (a) Superior 2/3 of iliac fossa (b) Ala of sacrum (c) Anterior sacro-iliac ligaments Inferior attachment (a) Lesser trochanter of femur and shaft inferior to it (b) Psoas major tendon Innervation (a) Femoral nerve L2- L4</p>	<p>(a) 6 Bold + 3 others to pass</p> <p>Name two muscles and origin and insertion</p>

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Question 2: Bone: SKULL	<p>Show me which bones make up the orbital rim?</p> <p>Describe the course of the infra-orbital nerve?</p> <p>What does the infra-orbital nerve supply?</p>	<p>Orbital rim: Frontal, Zygomatic, Maxilla</p> <p>Entrance into the orbit via the inferior orbital fissure Traverses infra-orbital groove and canal in orbital floor. Emerges via infraorbital foramen</p> <p>Mucosa of maxillary sinus; premolar, canine, and incisor maxillary teeth; skin and conjunctiva of inferior eyelid; skin of cheek, lateral nose, and anteroinferior nasal septum; skin and oral mucosa of superior lip.</p>	<p>Pass Criteria: Need 2/3</p> <p>Need Inferior orbital foramen</p> <p>Need cheek, superior lip, upper teeth</p>
Question 3 Model: Ankle	<p>a) Identify the ankle dorsiflexors on this model?</p> <p>b) What is their nerve supply?</p> <p>c) Identify the insertions?</p>	<p>1) tibialis anterior 2) Extensor digitorum longus 3) extensor hallucis longus 4) fibularis (peroneus) tertius</p> <p>All supplied by deep fibular (peroneal) nerve (L4)</p> <p>1) TA medial cuneiform and base 1st MT 2) EDL middle and distal phalanges lateral 4 digits 3) EHL base distal phalanx hallux 4) FT 5th MT</p>	<p>3/4 to pass</p> <p>know nerve and 3/4 to pass</p>
Question 4: L wrist & hand photo	<p>a) Identify the median nerve in this photo and adjacent structures.</p> <p>b) Demonstrate where sensation changes may occur if the median nerve is injured in the forearm.</p>	<p>16. Median n (15. Flexor retinaculum (anterior) – divided) 12. Flexor digitorum superficialis (posterior) 14. Flexor pollicis longus (lateral) 11. Flexor digitorum profundus (deep posterior) 18. palmar cutaneous branch of median n</p> <p>Palmar 3 ½ digits, adjacent palm and dorsal distal fingers</p>	<p>Median n and 2 other structures to pass</p> <p>Finger distribution to pass</p>

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<p>Question 1: PEG XR</p>	<p>Demonstrate the bony features of the upper cervical vertebrae on this x-ray?</p> <p>What ligaments stabilise these bones?</p>	<p>Lateral mass of Atlas (C1), Body of Axis (C2), Dens of Axis (C2), Lateral atlanto-axial joint, Spinous process of Axis (C2)</p> <p>Cruciate ligament Alar ligament Anterior longitudinal ligament = anterior atlanto-axial membrane = anterior atlano-occipital membrane Posterior longitudinal ligament = tectorial membrane Ligamentum flavum = posterior atlanto-axial membrane = posterior atlano-occipital membrane Nuchal ligament Interspinous ligament</p>	<p>Pass Criteria Need lateral mass, dens, body, axis</p> <p>Need cruciate ligament, alar ligament + 1 other</p>
<p>Question 2: Bone: Ankle Joint</p>	<p>a) identify the bony landmarks of the ankle ▪ prompt if not provided – what are the features of this bone (point at talus or name if already named)</p> <p>b) Name the structures passing behind the medial malleolus</p>	<ul style="list-style-type: none"> ▪ lat malleolus ▪ medial malleolus ▪ talus ▪ trochlea talus ▪ head talus ▪ neck talus ▪ body talus ▪ lateral tubercle talus ▪ medial tubercle talus ▪ groove for flexor hallucis longus <ul style="list-style-type: none"> ▪ Tibialis posterior ▪ Flexor digitorum longus ▪ Posterior tibial artery ▪ Tibial nerve ▪ Flexor hallucis 	<p>5/10 to pass</p> <p>3/5 to pass</p>
<p>Question 3: Model of Heart</p>	<p>Identify the chambers of the heart on this model</p> <p>Demonstrate where the major components of the conducting system would be found on this model</p>	<p>RA, LA, RV, LV,</p> <p>SAN – junction of SVC and RA AV-node – postero-inferior interatrial septum near coronary sinus AV bundle Right and left bundles</p>	<p>All 4 correctly identified to pass.</p> <p>Name major parts and generally accurate location</p>

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<p>Question 4:</p> <p>Photo: Cubital fossa</p>	<p>1 Identify the contents of the cubital fossa shown in this photograph.</p> <p>2. Demonstrate the course and branches of the Radial nerve, and name the structures they supply</p> <p>3. Which veins in the cubital fossa are usually accessed during venepuncture? What are the commonly observed variations to these vessels?</p>	<p>(Boundaries - PT, BR, line b'n epicondyles.) Contents - Median n, Brachial a, Biceps tendon, Radial n, veins with Brachial a</p> <p>2. Radial n under BR muscle laterally, divides into superficial and deep, former through Supinator to post. compt. muscles/jt., lateral to ant. compartment forearm sensory only to dorsum hand</p> <p>3. Median cubital, Basilic and Cephalic v's</p> <p>Median basilic and median cephalic in 20%</p>	<p>Bold = required for pass</p> <p>Bold to pass</p> <p>(Optional)</p>
<p>Question 5</p> <p>Discussion: Abdominal Aorta – Branches p313</p>	<p>(a) Name the branches of the abdominal aorta</p> <p>(b) Describe the anatomy of the superior mesenteric artery.</p>	<p>Anterior midline branches -Celiac -Superior mesenteric -Inferior mesenteric</p> <p>Lateral branches -Supra-renal -Renal -Gonadal</p> <p>Posterolateral -Subcostal -Inferior phrenic -Lumbar</p> <p>Origin L1 level, midgut vessel, pancreas above, duodenum below, L renal v below</p>	<p>4 Bold to + 3 others to pass</p>