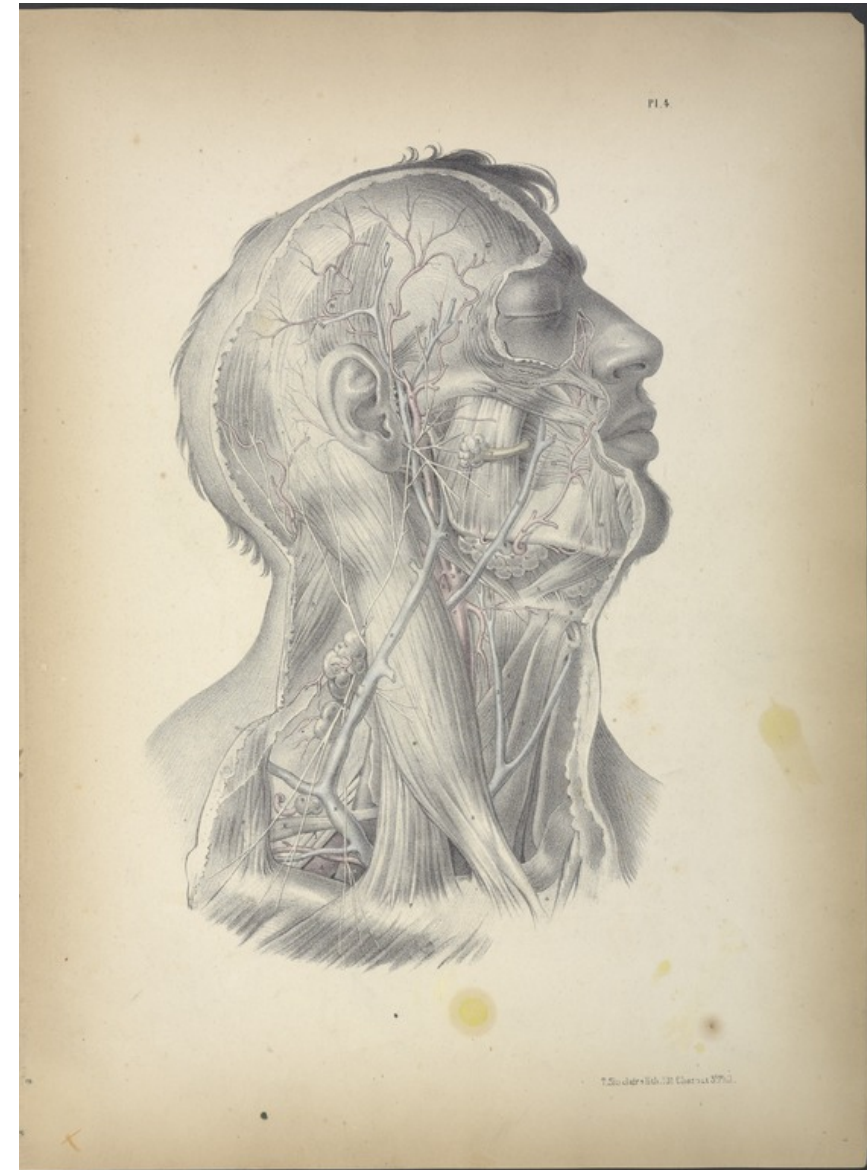


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Airway 2016-2-D

<p>Stem: He is noted to have a barking cough. Moving on to Anatomy.</p>			
<p>Question 3</p> <p>Upper airway Subject: Anat</p> <p><i>(Start with model with L half mandible and tongue removed; then split in half. Take model back before part b))</i></p> <p>LOA: 2 Model of airway (model FS5/1)</p>	<p>a. Using the model, demonstrate the main features of the larynx</p> <p><i>Prompt with knitting needle if needed</i></p> <p>b. What is the motor nerve supply of the larynx?</p> <p><i>Prompt: Does the recurrent laryngeal n. supply ALL the intrinsic mm.?</i></p>	<p>20 thyroid cartilage, cricoid cartilage, arytenoid cartilages, epiglottic cartilage/epiglottis, epiglottic vallecula, cuneiform and corniculate cartilages, 23 crico-thyroid membrane, 59 vocal cords</p> <p>Inferior laryngeal nerve is a continuation of the recurrent laryngeal nerve and supplies all intrinsic muscles except one: cricothyroid (which is supplied by the superior laryngeal n.)</p> <p>Larynx innervated by superior and inferior laryngeal branches of the vagus nerves (CN X).</p>	<p>Bold to pass</p> <p>Bold to pass</p>

Airway 2016-1-D

Stem: Moving onto Anatomy			
Question 2 Airway - model Subject: Anat LOA: 1	1. On the model, identify the structures of the larynx	Cartilages: thyroid (20), cricoid, epiglottis (54) , (arytenoids, corniculate, cuneiform) Ligaments: cricothyroid membrane (23) , thyrohyoid(21,22), vocal cords (60) Muscles: cricothyroid muscle (18), cricoarytenoid Spaces and folds: vallecula , aryepiglottic folds (57), piriform recess Cranial Nerve X (Vagus) Inferior laryngeal N – (terminal branch of Recurrent laryngeal nerve): All intrinsic muscles of larynx except for Cricothyroid M, sensory below cords. External Laryngeal N supplies Cricothyroid M Internal Laryngeal N sensory above cords (Int and Ext Laryngeal Ns both branches of Superior Laryngeal Nerve	5 of 6 bold plus 2 others
	2. What is the innervation of the larynx?		Bold with details of one

Airway 2014-2-A

Stem: A 60 yo man presents with fever and dyspnoea. He requires intubation. We will start with Anatomy.			
TOPIC	QUESTIONS	KNOWLEDGE (essential in bold)	NOTES
Question 1 Airway (model) (Somso Model) Subject: Anat LOA: 1	1. On the model, identify the structures of the larynx and upper airway	Cartilages: thyroid , cricoid, epiglottis , arytenoids, corniculate, cuneiform Ligaments: cricothyroid membrane , thyrohyoid, vocal cords Muscles: cricothyroid muscle thyrohyoid,, cricoarytenoid Spaces & Folds: vallecula ,aryepiglottic folds	Must name 4 of 5 bold and 2 others
	(somewhat dependent on model – for this session we take half mandible off and the muscles at the back)		
	2. Describe the nerve supply to the intrinsic laryngeal muscles (muscles of vocalisation)	All muscles supplied by branches of X All except cricothyroid supplied by recurrent laryngeal n, cricothyroid supplied by external laryngeal n.	Must name rec laryngeal and X as its source
	3. What are the results of an injury to the recurrent laryngeal nerve	Hoarse voice, and if bilateral, stridor due to inability to abduct cords as posterior cricoarytenoids are only abductors.	Supplemental

Anterior Neck 2015-2-B

Stem: Following intubation he requires inotropic support and a central line is inserted. Moving onto Anatomy			
Question 3 Anterior Neck Photo Subject: Anat LOA: 1	(a) Identify the venous structures in this photo	SVC (26), right brachiocephalic v (18), left brachiocephalic v (13), subclavian v (24), internal jugular v (8), inferior thyroid v (7)	4 to pass
	(b) Identify the nerves in this photo	Phrenic nerve (17), right vagus nerve (22), right recurrent laryngeal nerve (20), left vagus nerve (15), sympathetic trunk (28)	3 to pass
	(c) What is the difference between the course of the right and left recurrent laryngeal nerve	Right : hooks around subclavian artery Left : hooks around aorta After looping, they ascend in trachea-oesophageal groove to supply intrinsic muscles of larynx (except cricothyroid)	Both to pass

Anterior Triangle of Neck 2014-1-A

Stem: A 40 yo man presents with extensive burns to the lower half of his body. A CVC is inserted. We are starting with Anatomy			
TOPIC	QUESTIONS	KNOWLEDGE (essential in bold)	NOTES
Question 1 Photo – Anterior Triangle of Neck (McMinn's p39) Subject: Anat LOA: 1	What are the boundaries of the anterior triangle of the neck? SCM has been removed in this photo. Where is the internal jugular vein? Describe its course.	<u>SCM, midline, mandible</u> 22 Internal jugular vein IJV – continuation of sigmoid sinus Contained in <u>carotid sheath</u> . Lies lateral and ventral to artery. Goes <u>deep to SCM</u> and 2 heads of SCM – sternal and clavicular heads <u>Joins subclavian vein</u> posterior to <u>sternal end of clavicle</u> . Forms <u>brachiocephalic vein</u> .	All 3 to pass Need to identify Concept. 4/5 Bold to pass.
	What major structures are at risk during insertion of an IJ line.	external carotid artery (11) common carotid artery (8) vagus (63) , other nerves, lung, trachea, scm, thyroid, thoracic duct	2 to pass

Anterior Triangle of Neck 2010-2

<p>Question 4:</p> <p>Photo: Anterior Triangle neck</p>	<p>a. Define the boundaries of the anterior triangle of the neck.</p>	<p>SCM, midline, mandible</p>	<p>(need all 3)</p>
	<p>b. The internal jugular vein has been removed. Name some structures in the anterior triangle</p>	<p>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</p>	<p>3 to pass</p>
	<p>c. Name the branches of the external carotid</p>	<p>Ant. Asc. pharyngeal, superior thyroid, lingual, facial Post. Occipital, post auricular, superficial temporal, maxillary</p>	<p>2 to pass</p>

Anterior Triangle of Neck 2009-1

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1: (Discussion)	Define the boundaries of the anterior triangle of the neck.	<ul style="list-style-type: none"> • Anterior border of sternocleidomastoid • Midline of neck • Inferior border of the mandible 	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?	(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. (b) Common carotid artery, internal jugular vein, vagus nerve	All to pass
Question 3:	Describe the location of the thyroid gland in the neck.	<ul style="list-style-type: none"> • Located anteriorly in the neck at level of C5-T1 • Lies deep to sternothyroid and sternohyoid muscles • Right and left lobes sit anterolateral to the larynx and trachea • A thin isthmus unites the two lobes across the trachea (usually at 2nd and 3rd tracheal rings) 	2/3 bold to pass

Anterior Triangle of Neck 2007-1

OPENING QUESTION	What are the boundaries of the anterior triangle of the neck? (don't show picture yet)	COMMENTS
POINTS REQUIRED	1Sternomastoid	
	2Midline	
	3Mandible	
	4	
	7	
PROMPTS		
SECOND QUESTION (if needed)	In this picture the sternomastoid has been removed. Identify the major blood vessels	
POINTS REQUIRED	1 Common carotid (7)	mandatory
	2 Int jugular (17)	mandatory
	3 Facial v (12)	
	4 Ant jugular (4)	
	5 Ext carotid (9)	
	6	
PROMPTS		
THIRD QUESTION (if needed)	What other structures can you identify in the picture?	5 to pass
POINTS REQUIRED	1 Submandibular gland (33)	
	2 Parotid / facial nerve (25)	
	3Masseter (22)	
	4Omohyoid (34)	
	5 Digastric (3)	
	6 mandible (21), hyoid	
PROMPTS		

Anterior Triangle of Neck 2005-1

TOPIC: Anterior Triangle _____ **NUMBER: 2-5** _____

OPENING QUESTION	Identify the major structures in this picture	COMMENTS
POINTS REQUIRED	1	8 to pass
	2	
	3	
	4	
	5	
	6	
	7	
PROMPTS		
SECOND QUESTION (if needed)	Demonstrate the course of the right subclavian artery	
POINTS REQUIRED	1 Arises Brachiocephalic trunk	
	2 Over 1 st rib behind scalenus anterior	
	3 Lies in relation to first part of brachial plexus	
	4	
	5	
	6	
PROMPTS		

Atlas and Axis 2011-2

<p>Question 1:</p> <p>XR: Lateral Cx-spine</p> <p>LOA: 1,2</p>	<p><i>Demonstrate the bony features of the Atlas and Axis.</i></p> <p><i>Describe the movements of the head on the neck.</i></p>	<p>Ant and post arch of C1. Odontoid peg (dens). Body, lamina, spinous process C2</p> <p>Rotation occurs at level C1 on C2 (gliding on lateral Atlantoaxial joints and pivoting on median Atlantoaxial joint). Flexion and extension (nodding) as well as lateral flexion and rotation occur at the atlanto-occipital joints.</p>	<p>5/6</p> <p>Both levels of articulation and basic movements described.</p>
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C spine XR 2006-1

TOPIC: Oral atlanto axial view – Landmarks _____ **NUMBER:** ____ TH PM 1

OPENING QUESTION	Could you outline the landmarks of the PEG view?	COMMENTS
POINTS REQUIRED	1 Dens	Must know
	2 Lateral mass of atlas	Must know
	3 Atlanto axial joint	Must know
	4 Lateral mass of axis	Must know
	5 Mandibular ramus	Must Know
	6 Bifid posterior spine of the axis	Possible
	7 Posterior arch of the atlas	Possible
	8 Atlanto – occipital joint	Possible
	9 Other	Possible
PROMPTS	What is this structure etc?	
SECOND QUESTION (if needed)	What movements occur at C1 and C2?	
POINTS REQUIRED	1 Flexion and extension of the atlanto occipital joint	
	2 Rotation of the atlanto-axial joint	2 of 2 to pass
PROMPTS		
THIRD QUESTION (if needed)		
POINTS REQUIRED		
PROMPTS		

C1C2 2016-2-C

Stem: Moving onto anatomy. There is concern for cervical spine injury.			
<p>Question 4 C1/2 (bone)</p> <p>Subject: Anatomy LOA: 1</p>	<p>Identify the features of this bone.</p> <p>Describe the joints between C1 and C2</p> <p>Which ligaments stabilise the joints between C1 and C2?</p>	<p>C2 or axis: Body, dens, superior and inferior articular facets, lamina, pedicle, transverse process, transverse foramen, bifid spinous process, vertebral foramen</p> <p>2 x Lateral atlanto-axial joints (facet joints) are synovial joints, between inferior articular facet of atlas and superior articular facet of axis each side. Lax capsule</p> <p>Median atlanto-axial joint: synovial joint between anterior arch of C1 and dens – a pivot joint.</p> <p>Cruciate or cruciform ligament –made up of STRONG transverse lig across atlas behind dens (bursa between) and WEAKER vertical bands from back of body of axis posterior to dens to basiocciput (bypass atlas)</p> <p>Holds dens in position and prevents pressure from dens on medulla</p> <p><u>Alar (x2) ligaments</u> from sides of dens to the edge of foramen magnum. Strong and limit rotation (with weak apical lig from apex dens to FM)</p> <p><u>Tectorial membrane</u> is a continuation of post longitudinal ligament, attached from back of body of axis to ant half of FM. Lies in front of dura</p>	<p>ID the bone and dens + 4</p> <p>bold</p> <p>Must know cruciate + 1 other</p>

C1C2 2013-1

TOPIC	QUESTIONS	KNOWLEDGE (essential in bold)	NOTES
Question 1: C1/C2 (Bony Landmarks/Articulation)	C2 – identify the features of this bone.	C2 (axis) . Body, dens, superior and inferior articular facets, pedicle, transverse process, transverse foramen, lamina, spinous process, vertebral foramen,	Dens and 5 others to pass
	Describe the joints between C1 and C2	Lateral atlanto-axial joints (facet joint) and joint between anterior arch of C1 and dens. Both synovial joints – first one hinge, second one pivot	ID location of both joints to pass
	Which ligaments stabilise these joints?	Cruciate (cruciform) ligament – vertical and transverse components Alar ligaments Post longitudinal lig continued as tectorial membrane Anterior longitudinal ligament, Ligamentum flavum, Nuchal ligament, Interspinous ligament, Joint capsule	2 of 3 bold and 1 other

C1C2 2011-2

<p>Question 2</p> <p>Bone: C1-C2</p> <p>LOA: 1,2</p>	<p>i. <i>Name these bones. Demonstrate their features and describe the structures stabilising the atlantoaxial joint.</i></p> <p>ii. <i>Describe the articular surfaces and the movements that occur at the Atlanto-axial joint?</i></p>	<p>C1; ant arch, post arch, transverse process, foramen transversarium.</p> <p>C2; Body, odontoid process (dens), transverse process, spinous process.</p> <p>Articular cavity of C1, Transverse ligament, ant longit lig, cruciate ligament. + others (many)</p> <p>2 lateral atlantoaxial joints (synovial gliding and a median atlantoaxial joint (pivot type) permit side to side head motion.</p>	<p>Correct ID, 3 bony features of each,</p> <p>2/4 stabilising features to pass.</p> <p>Many other ligaments possible.</p> <p>Recognise 3 articulations and movement.</p>
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C1C2 2007-2

OPENING QUESTION	Describe the features of this bone (C2)	COMMENTS
POINTS REQUIRED	1 odontoid peg (dens) and body	6/10 to pass
	2 vertebral foramen (s.c.) transverse foramen (v.a.)	Identify it as C2
	3 inferior/superior articular surfaces	
	4 pedicle	
	5 transverse process	
	6 lamina	
	7 spinous process	
PROMPTS		
SECOND QUESTION (if needed)	What ligaments stabilise the atlantoaxial joint?	
POINTS REQUIRED	1 Cruciate ligament which has two components	Cruciate and tectorial to pass i.e. 2/3
	Transverse- between lateral masses of C1- strong	
	Longitudinal- occiput to body C2- weak	
	2 Alar ligament- side of peg to foramen magnum	
	3 tectorial membrane- continuation of PPL from body of C2 to internal occiput	
PROMPTS		
THIRD QUESTION (if needed)	What movement occurs at the C1/C2 joint?	
POINTS REQUIRED	Rotation of C1 on C2	

C1C2 2003-2

TOPIC 3	Vertebra	
QUESTIONS AND ANSWERS	Demonstrate the features of this bone: Odontoid, superior and inferior articular facets, body, pedicles, foramina transversaria, pedicle, lamina, bifid spinous process	6/8 to pass
	Discuss the stability of the atlantooccipital joint: Bony: peg, articular facets Ligamentous: anterior longitudinal, tectorial/ cruciform Apical, alar, nuchal ligament	2 bony features and top 2 ligaments to pass

C2 2009-2

<p>Question 2:</p> <p>Bone: C2</p>	<p>Identify this bone and its anatomical features</p> <p>What are the major ligaments attaching to this bone and where do they attach</p>	<p>C2 (axis) – dens (must)</p> <ul style="list-style-type: none"> - sup/inf articular facets, trans process, bifid s.p, lamina, pedicle, body (at least 5 to pass) <p>General – tectorial mem (pll), ant a-a mem (all), lig flav (p a-a lig)</p> <p>Specific – cruciate (transverse and long fibres)</p> <ul style="list-style-type: none"> - alar 	<p>Dens and 5 others to pass</p> <p>1 of 3 (alar & cruciate to pass)</p>
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Carotid Arteries 2017-2-A

Stem: A 75-year-old man presents following a transient ischaemic attack (TIA). We will start with Anatomy			
TOPIC	QUESTIONS	KNOWLEDGE (essential in bold)	NOTES
Question 1 Carotid artery (McMinn's Photo of Anterior triangle of Neck, 7 th edition, page 29) Subject: Anatomy LOA: 1	a) What are the boundaries of the anterior triangle of the neck b) Identify the major Neurovascular structures on this photo. c) Discuss the anatomy of the right common carotid artery.	a) Anterior border of sternocleidomastoid, lower border of the mandible and the midline b) Common Carotid artery (8) External Carotid artery (11) Internal jugular vein (22) Vagus nerve (63) c) Right Common Carotid: begins at the bifurcation of the brachiocephalic trunk behind the sternoclavicular joint into common carotid and subclavian arteries. In the neck it lies within the medial part of the carotid sheath , internal jugular vein lateral to it and the Vagus nerve deeply placed between the two vessels. The common carotid bifurcates at the level of the upper border of the lamina of the thyroid cartilage (upper border of C4 vertebrae into the external and internal carotid arteries .	All correct Bold to pass 3 out of 5 bold to pass

Carotid Arteries 2006-2

3. Photo – side of neck	1. What structures can you identify in this picture?	(at least 6) Can work these off photo provided.		
	<p>2. (if not already identified , point to common carotid bifurcation and ask what it is) Can you describe the branches of the internal and external carotid.</p> <p>3) Although a lot of structures have been removed, can you discuss and demonstrate the relations of the int & ext carotid? (may leave for later)</p>	<p>Branches of Int Carotid..no branches, starts lateral and eventually passes post and finishes medial and deep to the ext.c, to the side of pharynx.</p> <p>Ext Car. -.6 branches, 3 ant, 2 behind and 1 med. Ant branches are sup thyroid..most inf , lingual above, and facial above that. Post branches are occipital most inferior, & above that the post auric (below & above digastric). Ascend. Phar. is med. branch Int carotid has vein lateral with the vagus in between, behind is symp trunk, pharyngeal v, sup laryngeal br of vagus. Medial is asc pharyngeal art. Ant is ling and facial v, occipital art, hypoglossal n, scm muscle and post belly of digastric. Ext is separated from int by deep part of parotid and pharyngeal structures (stylo pharyngeus m, glossopharyngeal n and ph br of vagus</p>		

Carotid Triangle of Neck 2011-1

<p>Q4. Lateral neck (+/- face)</p>	<p>Identify the major regions or triangles of the neck</p> <p>Identify the carotid triangle and its boundaries</p> <p>Identify the structures within the carotid triangle</p>	<p>Anterior triangle (aka ant cx region) bounded by midline, ant bo scm, inf bo mandible Posterior triangle (aka lat cx region) bounded by post bo scm, ant bo trap, middle 1/3 clavicle</p> <p>sup belly omohyoid, post belly digastric, ant border SCM</p> <p>CCA, ICA, ECA Branches of ECA: sup thyroid, lingual, facial visible, Lymph nodes, Hypoglossal n.</p>	<p>Must correctly ID both triangles and name boundaries of at least one</p>
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Cervical Spine XR 2007-2

TOPIC: X-ray: Lateral C spine _____ **NUMBER:** 1

OPENING QUESTION	Demonstrate the bony features of C1 and C2 vertebrae evident on this Xray	COMMENTS
POINTS REQUIRED	1 Odontoid peg (dens)	5/8 including dens to pass
	2 Bodies of C1 and C2	
	3 anterior and posterior arches of atlas	
	4 laminae and inferior articular process	
	5 spinous process	
PROMPTS		
SECOND QUESTION (if needed)	What are the components of the soft tissue shadow located anterior to the upper cervical vertebrae?	
POINTS REQUIRED	1 Anterior longitudinal ligament	3/6 to pass including retropharyngeal space
	2 Longus colli muscle	
	3 Prevertebral fascia	
	4 Retropharyngeal space	
	5 Buccopharyngeal fascia	
	6 Pharyngeal muscle	
PROMPTS		

Cervical Spine XR 2005-1

TOPIC: C-Spine XR _____ **NUMBER:** 1-1 _____

OPENING QUESTION	Identify the major bony features of the cervical spine on this Xray	COMMENTS
POINTS REQUIRED	1 Atlas	6/11 to pass
	2 Anterior + posterior arch of Atlas	
	3 C2	
	4 dens	
	5 vertebral bodies, pedicle, lamina, spinous process	
	6 superior articular processes	
	7 inferior articular processes	
PROMPTS		
SECOND QUESTION (if needed)	Using the X-Ray indicate the location of the ligamentous structures that stabilise the cervical spine.	
POINTS REQUIRED	1 Supraspinous	4 of 6 to pass
	2 interspinous	
	3 ligamentum flavum	
	4 posterior longitudinal	
	5 anterior longitudinal ligaments	
	6 intertransverse	
	7 At C1/C2: Cruciform/ tectorial membrane/ apical/alar	Bonus
PROMPTS		
THIRD QUESTION (if needed)		
POINTS REQUIRED	1	
	2	
PROMPTS		

Cervical Vertebrae 2015-2-B

Stem: You suspect that he must have a cervical spinal cord injury. Moving onto Anatomy			
Question 4 Bones – C1, 2 Subject: Anat LOA: 1	(a) Identify this bone	C2 (axis)	Must say C2.
	(b) Describe its features	On C2; (1)body, (2)dens , (3)impression for alar ligament, (4)superior and inferior articular surface, (5)pedicle, (6)lamina, (7)bifid spinous process, (8)transverse process with foramen, (9)vertebral foramen	Bold + 4 other features
	(b) Name the ligaments that stabilize the atlanto-axial joint Prompt : how is the dens kept in place	<div>Transverse ligament</div> <div>Superior & inferior longitudinal band</div> <div>Alar ligaments</div> <div>Tectorial membrane (continuation of post long lig)</div> <div>Anterior atlanto-axial membrane (continuation of ant long lig)</div> <div>Posterior atlanto-axial membrane (continuation of lig flavum)</div> <div>Apical ligament</div> <div>Cruciate lig</div>	Transverse lig & 2 others
	(c) What movement occurs at the atlanto-axial joint	Rotation around vertical axis	Bold

Cervical Vertebrae 2010-2

<p>Question 1:</p> <p>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</p> <p>Need lateral mass, dens, body, axis</p> <p>Need cruciate ligament, alar ligament + 1 other</p>
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Cervical Vertebrae 2004-2

TOPIC: Cervical Vertebra _____ NUMBER: 3.2 _____

OPENING QUESTION	Identify the major parts of this bone	COMMENTS
POINTS REQUIRED	1 Body (smaller than triangular vertebral foramen)	4 of 5 to pass
	2 Transverse Process with foramen	
	3 Lamina	
	4 Spinous Process	
	5 Superior and Inferior Articular Processes	
PROMPTS	What is this called?	
SECOND QUESTION (if needed)	Describe the joint between adjacent cervical vertebrae	
POINTS REQUIRED	1 Intervertebral Joint	
	2 Synovial facet joint	
	3	
	4	
	5	
	6	
PROMPTS		
THIRD QUESTION (if needed)	What movements occur at the facet joints?	
POINTS REQUIRED	1 Upper facets face obliquely up and back	
	2 Lower facets face down and forwards	
	3 Flexion/Extension, lateral flexion (abduction)	
	4 No rotation	
	5	
	6	
PROMPTS		

Larynx 2017-1-C

Stem: You proceed to intubate the patient. Moving on to Anatomy.			
Question 4 Larynx (model) Subject: Anat LOA: 1	a) Identify the key structures on this model.	Tongue, vallecula , epiglottis , cricoid , vocal cords, trachea, thyroid cartilage, hyoid bone	Bold plus 2 others
	b) What is the nerve supply of the muscles of the larynx?	Recurrent laryngeal nerve (derived from vagus) supplies all the muscles except for the cricothyroid muscle – supplied by the external laryngeal n.	Bold
	c) Demonstrate the landmarks for a cricothyroidotomy?	Thyroid cartilage, cricoid cartilage, cricothyroid membrane	Bold
	d) Which cartilage in the larynx is fully circumferential?	Cricoid cartilage	

We are now moving to Anatomy			
<p>Question 3 ANATOMY Model – Larynx (Full model with tongue in situ)</p> <p>LOA: 1</p>	1.	1.	bold 5/6 total
	<p>a) Identify the <u>structures</u> in the upper airway that could lead to airway obstruction</p> <p>b) What other structures are visible</p>	<p><u>Tongue</u> <u>Tonsils, pharynx</u> <u>Epiglottis, glottis</u></p> <p>Hyoid bone, floor of mouth - mylohyoid (Prompt) Mandible Buccal muscles, cheek. Medial pterygoid muscles ary-epiglottic folds & vallecula, Piriform fossa</p> <p>2. Cartilage: Cricoid, Thyroid, Arytenoids and Epiglottis Bone: Hyoid</p> <p>3. Motor: Recurrent laryngeal N (inferior laryngeal-terminal branch of Rec Laryngeal) except for Cricothyroid which is External Laryngeal N (tenses cords). Both from CN X</p> <p>Sensory: Above cords: Internal Laryngeal N (branch of superior laryngeal N) Below cords: Recurrent Laryngeal N (Inferior laryngeal branch) (Br of CrN X)</p>	<p>2 underlined</p> <p>All bold</p> <p>Bold</p>
<p>Model - Tongue & Airway (Somso upper airway models)</p>	<p>2. What are the bony and cartilaginous components of the larynx</p> <p>3. What is the innervation of the larynx?</p>		

Larynx 2008-2

Question 2: Larynx	Using the model, demonstrate the main features of the larynx. Remove left side of mandible and tongue.	<ol style="list-style-type: none"> 1) From epiglottis to inf border of cricoid 2) Cartilages(9). <u>Thyroid</u>: sup/inf horns/oblique line/laryngeal prominence/laminae/thyroid notch. <u>Cricoid</u>: cricothyroid joint>allows change in length of vocal cords. <u>Epiglottis</u>. <u>Cuneiform</u> and <u>Corniculate</u>(paired). <u>Arytenoid</u>(paired) 3) Membranes: Thyrohyoid and median cricothyroid 4) Ligaments: Cricotracheal/med and lat cricothyroid. Aryepiglottic/thyroepiglottic. Med and lat thyrohyoid 	Need all to pass Thyroid cartilage Cricoid cartilage Epiglottis Cricothyroid membrane Location of the arytenoids
	What is the motor innervation of the muscles of the larynx	<u>Extrinsic</u> : Infrahyoid/suprahyoid/stylopharyngeus. CNX Recurrent laryngeal > sup and inf laryngeal <u>Intrinsic</u> : CNX > rec. laryngeal supplies all except cricothyroid supplied by ext branch of sup. Laryngeal. Principal adductors: lat. cricoarytenoid(plus trans and oblique arytenoids) Principal abductors: post cricoarytenoid Tensor: cricothyroid Relaxer: Thyroarytenoid Sphincters: Action of most other than post cricothyroid	To pass: Recurrent laryngeal nerve

Larynx 2008-1

OPENING QUESTION	On this model identify the structures of the larynx and upper airway.	COMMENTS
POINTS REQUIRED	1 Thyroid cartilage	Identify 6 to pass
	2 Cricoid cartilage	
	3 Cricothyroid membrane	
	4 Cricothyroid muscle	
	5 Epiglottis	
	6 Vocal cords; vocal folds	
	7 Aryepiglottic folds; vallecula	
PROMPTS		
SECOND QUESTION (if needed)	Name the muscles of vocalisation.	
POINTS REQUIRED	1 Cricothyroid ; Anterolat cricoid to inf margin and inf horn of thyroid. (Ext laryngeal nn)	** to pass
	2 Thyroarytenoid ; Lower ½ post angle of thyroid laminae and cricothyroid lig to anterolat arytenoid (Inferior laryngeal nn)	
	3 Post cricoarytenoid ; Post surface of cricoid lamina to vocal process of arytenoid. (inf lary nn)	
	4 Lat cricoarytenoid ; Arch of cricoid to vocal process of arytenoid. (inf lary nn)	
	5 Transverse and oblique arytenoids ; One arytenoid cart to contralat arytenoid (inf lary nn)	
	6 Vocalis ; Lat surface vocal process of arytenoid cart to ipsilat vocal lig	
PROMPTS		
THIRD QUESTION (if needed)	Please describe the nerve supply to the intrinsic laryngeal mm (mm of vocalisation)	
POINTS REQUIRED	1 All except cricothyroid supplied by recurrent laryngeal nn. **	
	2 Recurrent laryngeal nn is a branch of CN X	** main points
	3 Cricothyroid supplied by external laryngeal nn. **	
	4 External laryngeal nn is one of the 2 terminal branches of the superior laryngeal nn	
PROMPTS		

Larynx 2004-2

TOPIC: Larynx _____ NUMBER: 1.3 _____

OPENING QUESTION	Identify the structures visible on front of this model	COMMENTS
POINTS REQUIRED	1 Thyroid Cartilage	All 7 to pass
	2 Cricothyroid membrane	
	3 Trachea	
	4 Thyroid	
	5 Hyoid	
	6 Thyrohyoid Membrane	
	7	
PROMPTS	Where is the cricoid cartilage?	
SECOND QUESTION (if needed)	What is the motor nerve supply of the larynx?	
POINTS REQUIRED	1 Recurrent laryngeal except	RLN = absolute minimum
	2 Cricothyroid = External Laryngeal	
	3	
	4	
	5	
	6	
PROMPTS		
THIRD QUESTION (if needed)		
POINTS REQUIRED	1	
	2	
	3	
	4	
	5	
	6	
PROMPTS		

Lateral soft tissue XR 2007-1

OPENING QUESTION	Identify the structures shown in this xray	COMMENTS
POINTS REQUIRED	1.nasopharynx/posterior aspect of tongue / soft palate	
	2 retropharyngeal soft tissue	6 to pass
	3 trachea/oesophagus	
	4 epiglottis	
	5 vallecula	
	6 vestibular fold/vocal fold	
	7 Bony: C1, C2, BOS, Mandible, Spinous processes, Laminae, Disc spaces, Larynx, Hyoid, Trachea	
	8. cartilage: thyroid	
PROMPTS	What soft tissue / bony structures can you identify?	
SECOND QUESTION (if needed)	Demonstrate the boundaries of the spinal canal on this xray	
POINTS REQUIRED	1	
	4	
	5	
	6	
PROMPTS		
PROMPTS		

Neck 2016-1-C

Stem: Moving onto Anatomy.			
Question 4 Neck Model (sagittal section) Subject: Anat LOA: 1	1. Identify the boundaries of the anterior triangle of the neck on this model.	Anterior border of SCM, midline of neck and inferior border mandible	All 3 bold for pass
	2. a) Describe the surface markings of the carotid sheath in the neck b) What are its contents?	a) Runs along a line joining the SCJ and a point midway between the mastoid process and angle of mandible b) Common Carotid a., IJV and Vagus	a) all b) all
	3. Describe the position and features of the Thyroid gland	Anterior in neck at level C5-T1, deep to Sternohyoid and sternothyroid m. R and L lobes sit anterolateral to the Larynx and Trachea. The isthmus joins these at level approx 2-3 tracheal rings	2/3

Neck triangles 2008-2

Question 4	This is a lateral photo of the neck.		
Photo neck	Demonstrate the borders of the posterior triangle	SCM, Trapezius, Clavicle	Need all 3 borders of each to pass
	Demonstrate the borders of the anterior triangle	Midline, SCM, Mandible	Need all 3 borders to pass
	What is this structure (12 – external carotid) - What are its branches?	Ascending pharyngeal Superior thyroid Lingual Facial Occipital Posterior auricular Superficial temporal Maxillary o If required, indicate not all are visible	2 branches to pass

Neck Vasculature 2013-1

<p>Question 3 Photo Thoracic Inlet (Describe Structures)</p>	<p>Identify the vascular structures in this photo.</p> <p>What is the anatomical relationship of the internal jugular vein to the carotid artery?</p> <p>Describe the surface marking of the internal jugular vein.</p>	<p>Common carotid aa left 14, & right 19, brachiocephalic trunk 4, , right subclavian a. 21, brachiocephalic vv right 18 & left 13, subclavian vv 24, left internal jugular v 8, thyrocervical trunk 32</p> <p>Superiorly IJV lies posterior to ICA Passes inferiorly in the carotid sheath with vagus n between IJV and carotid Inferiorly IJV lies lateral to CCA, passes deep to heads of SCM</p> <p>From earlobe/mastoid to medial end of clavicle</p>	<p>5/8 to pass</p> <p>2 of 3 bold to pass</p> <p>Bold to pass</p>
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TOPIC: Photo: Neck, thoracic inlet _____ **NUMBER: 2.4** _____

OPENING QUESTION	What is this structure ?	COMMENTS
	Common carotid artery	*essential
PROMPTS		
SECOND QUESTION (if needed)	How does the internal jugular vein relate to the carotid artery?	
POINTS REQUIRED	1 Emerges from jugular bulb, initially behind internal carotid artery and lying on transverse process of atlas,	*essential
	2 then passes down to be lateral to ICA* within carotid sheath*, with the vagus nerve between it and the artery.	
	3 The terminal part lies superficial and lateral (deep to the junction of the heads of sternocleidomastoid and joins the subclavian to form the brachiocephalic vein behind the medial end of the clavicle).	*
PROMPTS		
THIRD QUESTION (if needed)	Please describe the surface marking of the internal jugular vein ?	
POINTS REQUIRED	1 The surface marking is from the earlobe (or mastoid)* to the sternoclavicular joint (or medial part of clavicle)*.	* essential

Neck Vasculature 2004-2

TOPIC: Vessels in neck _____ **NUMBER:** 3.5 _____

OPENING QUESTION	Identify this structure [23], its branches and their relationship to other structures	COMMENTS
POINTS REQUIRED	1 Subclavian [1]	
	2 Common Carotid [12]	
	3 Internal Thoracic Artery [7] (internal mammary)	
	4 Suprascapular Artery [3]	
	5 Transverse Cervical [4] (superficial cervical)	
	6 Inferior thyroid artery (not seen) – continuation thyrocervical trunk	
	7 Scalenus anterior [2]	
	8 Vagus Nerve [6]	
	9 Phrenic Nerve [5]	
PROMPTS		
SECOND QUESTION (if needed)	Identify the branches of the external carotid	
POINTS REQUIRED	1 origin upper border C4 / upper border thyroid cartilage	
	2 from front - superior thyroid, lingual, facial	
	3 from behind - occipital, posterior auricular	
	4 medial – ascending pharyngeal	
	5 terminal – superficial temporal and maxillary arteries	
	6	
PROMPTS		

Root of neck 2003-2

TOPIC 4		COMMENTS
	Root of neck photograph	
QUESTIONS AND POINTS REQUIRED	Outline the thyroid gland	
	What vascular structures can be identified at the root of the neck	SVC, L&R brachiocephalic arteries and veins, carotids and subclavians
	What are these nerves (5 and 6 in photo)	Vagus and phrenic