

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Anatomy Thurs a.m Question 1 _____ **NUMBER:** _____

OPENING QUESTION		COMMENTS
POINTS REQUIRED	Identify the bones of the carpus 1 scaphoid, lunate, trapezium, trapezoid, capitate, hamate triquetrum, pisiform	7 out of 8 to pass
	2	
	3	
	4	
	5	
	6	
	7	
PROMPTS		
SECOND QUESTION	Describe the attachments of the flexor retinaculum (= Transverse palmar ligament)	
POINTS REQUIRED	1 Hook of hamate + pisiform medially (= ulnar)	2 to pass
	2 Trapezium (tubercle) + scaphoid (tubercle) laterally	
	3	
	4	
	5	
	6	
PROMPTS	What forms the carpal tunnel?	
THIRD QUESTION (if needed)	What nerves pass superficial to the carpal tunnel?	1 to pass
POINTS REQUIRED	1 Ulnar nerve	
	2 Palmar cutaneous branch of median nerve	
	3	
	4	
	5	
	6	

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: MODEL ; Muscles of vocalisation / Nerve supply

NUMBER: Thurs am/ Q2 _____

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		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Photo - femoral triangle boundaries and contents **NUMBER:** Thurs am Q3 ____

OPENING QUESTION	Identify the boundaries and contents of the femoral triangle in this photo	COMMENTS
POINTS REQUIRED	1 Ing lig, add long and Sartorius form triangle, pectineus (med) and iliopsoas (lat) form floor	4/5 to pass
	2 fem vein, fem art and fem nerve (med to lat)	3/3 to pass
	3	
	4	
	5	
	6	
	7	
PROMPTS		
SECOND QUESTION (if needed)	Describe the branches and course of the femoral artery.	
POINTS REQUIRED	1 4 superficial branches in fem triangle (superf epig, superf cx iliac, superf and deep pudendal)	The 3 general points to pass
	2 Profunda femoris (“ deep artery of thigh ”!) branches off post-lat in triangle to supply thigh, passes behind add longus. Gives med and lat cx fem arteries. Med cx fem supplies NOF	
	3 Fem artery continues down thigh deep to Sartorius and pass through adductor canal and becomes popliteal art at adductor hiatus	
PROMPTS		
THIRD QUESTION (if needed)		
POINTS REQUIRED	1	
	2	
	3	
PROMPTS		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: XR AP Pelvis

NUMBER: Thur am qu4

OPENING QUESTION	Describe the major bony features seen on this Xray	COMMENTS
POINTS REQUIRED	1 Ilium – crest, ASIS, AIIS, acetabulum (pt), SI jt	15 features to pass
	2 Ischium – body, ramus, tuberosity, spine,	
	3 Pubis – symphysis, inf ramus, sup ramus, tubercle, pectineal line	
	4 Sacrum – vertebral foramina, L5-S1 jt	
	5 Coccyx	
	6 Femur – head, neck, gter trochanter, lesser trochanter	
	7 Acetabulum, obturator foramen,	
PROMPTS	Which bones can you see? Where do fractures usually occur?	
SECOND QUESTION (if needed)	Demonstrate the bony attachments of the main muscles which flex the hip	
POINTS REQUIRED	1 Flexors – Iliacus – iliac crest, fossa, ala sacrum, ant SI lig to psoas maj, Psoas maj – T12-L5 vert, discs, transv proc to lesser troch fem, Psoas min – T12 – L1 to pec line, iliopect eminence Rectus femoris – AIIS, ilium) Pectineus (superior ramus of pubis) Sartorius (ASIS)	Iliopsoas and one other
PROMPTS		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Chest Wall ____

NUMBER: Thurs AM Question 5

OPENING QUESTION		COMMENTS
POINTS REQUIRED	Describe the intercostal muscles	
	1 External intercostal – from tubercles of ribs posteriorly to costochondral junction (thence external intercostal membrane) run infero-anteriorly and are most active during inspiration (to increase tonus of intercostal space) and during forced inspiration	External + internal + one other to pass
	2 Internal intercostal – deep to and at right angles to externals from sternum to angle of ribs posteriorly (continued posteriorly as internal intercostal membrane) run infero-posteriorly and are most active during expiration (to increase tonus of intercostal space). Interosseous portions act during forced expiration whilst interchondral portion act during active inspiration	
	3 Innermost intercostals – essentially the deeper parts of the internals separated from them by the intercostal nerves and vessels. Occur laterally	
	4 Subcostals – run in the same direction as the internals, but cross 2 or 3 spaces, lower spaces	
	5 Transverse thoracic – run from sternum and xiphisternum transversely to lower ribs	
	6 Levator costarum – from transverse processes to ribs	
PROMPTS		
SECOND QUESTION (if needed)	Describe the pattern of distribution of neurovascular structures in the thoracic wall.	Order of neurovascular and relation to rib and groove
POINTS REQUIRED	1 Enter medial most part of posterior ICS	
	2 Run between parietal pleura and internal IC membrane in the middle of the space	
	3 Near angle of ribs pass between internal and innermost IC muscles	
	4 Here in costal grooves, with nerve inferior to artery inferior to vein	
	5 Collateral branches arise here and run along superior border of rib	
	6 Vessels also have anterior supply and drainage	
PROMPTS		
THIRD QUESTION (if needed)	Describe the arterial supply of the intercostal spaces	
POINTS REQUIRED	1 Posterior intercostal arteries (branches of the supreme intercostal from the subclavian [1 & 2] and of the thoracic aorta)	
	2 Anterior intercostal arteries (branches of the internal thoracic [previously: internal mammary] – spaces 1 to 6 & musculo-phrenic – spaces 7 to 9)	

PROMPTS		
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COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Anatomy _____ **NUMBER:** Thurs p.m Question 1

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

	6	
PROMPTS		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: MODEL: Tongue / Muscles and nerve supply **NUMBER:** Thurs pm Q2 _____

OPENING QUESTION		COMMENTS
POINTS REQUIRED	Mandible; tongue; lip; teeth; geniohyoid muscle; hyoid bone; stylohyoid muscle; genioglossus muscle	Four structures to pass
SECOND QUESTION (if needed)	Describe the innervation of the tongue	
POINTS REQUIRED	<p>1 Motor ; All mm except palatoglossus innervated by CN 12 (Hypoglossal nn)</p> <p>Palatoglossus is actually a palatine mm, therefore supplied by pharyngeal plexus</p>	<p>To pass ;</p> <p>1) Hypoglossal main motor</p> <p>2) Lingual ant 2/3 sensation</p> <p>3) Chorda tympani ant 2/3 taste</p>
	<p>2 General Sensation ; (touch and temperature) ; mucosa of anterior 2/3 supplied by lingual nn (branch of CN V 3 Mandibular).</p> <p>Taste for ant 2/3 (EXCEPT for vallate papillae) is via chorda tympani nn (branch of CN VII). The chorda tympani joins the lingual nn and runs anteriorly in it's sheath.</p> <p>Posterior 1/3 of tongue and vallate papillae, BOTH general sensory to mucous membrane and taste are supplied by the lingual branch of glossopharyngeal nn (CN IX)</p>	
	<p>3 Twigs of internal laryngeal nn (branch of vagus) supply mostly eneral but some special sensation to a small area of tongue just anterior to epiglottis. These mostly sensory fibres also carry parasympathetic secretomotor fibres to serous glands of tongue</p>	
	<p>4 parasympathetic fibres from chorda tympani travel with lingual nn to submandibular and sublingual salivary glands. These nn fibres synapse in the submandibular ganglion which hangs from the lingual nn.</p>	
THIRD QUESTION (if needed)		
POINTS REQUIRED		
	5	
	6	
PROMPTS		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Post. abdo wall - major structures and course of ureters **NUMBER:** Thurs pm Q3

OPENING QUESTION		COMMENTS
	This is a photo of the posterior abdominal wall. Please identify the major structures.	
POINTS REQUIRED	1 Psoas, iliacus	2/2
	2 Aorta, common, ext and int iliac arteries	3/4
	3 IVC and common and ext iliac veins	2/3
	4 Bladder, Ureters	3/3
	5 Gonadal vessels	+
	6 Genitofemoral nerve	+
	7	
PROMPTS		
SECOND QUESTION (if needed)	Describe the course of the ureter from the kidney to the bladder	
POINTS REQUIRED	1 Retroperitoneal, 25-30cm long	
	2 Arise from renal pelvis, ~L1 on left and L2 on right	
	3 Continue distally parallel to tp's of lumbar spine, adherent to parietal peritoneum	
	4 Pass over pelvic brim at bifurcation of common iliac art	
	5 run on lateral wall of pelvis then at level of ischial spine curve anteromedially to enter base of bladder	
		3/5 to pass
PROMPTS		
THIRD QUESTION (if needed)	What are the common sites of ureteric narrowing?	2/3
POINTS REQUIRED	1 Pelvoureteric junction	
	2 crossing pelvic brim	
	3 vessicoureteric junction	
	4	
PROMPTS		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC:XR AP Pelvis

NUMBER: Thur am qu4

OPENING QUESTION	Describe the major bony features seen on this Xray	COMMENTS
POINTS REQUIRED	1 Ilium – crest, ASIS, AIIIS, acetabulum (pt), SI jt	15 features to pass
	2 Ischium – body, ramus, tuberosity, spine,	
	3 Pubis – symphysis, inf ramus, sup ramus, tubercle, pectineal line	
	4 Sacrum – vertebral foramina, L5-S1 jt	
	5 Coccyx	
	6 Femur – head, neck, gter trochanter, lesser trochanter	
	7 Acetabulum, obturator foramen,	
PROMPTS	Which bones can you see? Where do fractures usually occur?	
SECOND QUESTION (if needed)	Demonstrate the important ligament attachments of the hip joint	2 out of 4 to pass
POINTS REQUIRED	1 Iliofemoral lig – strong, ant sup ASIS, inf intertrochanteric line	
	2 Pubofemoral – med – obturator crest pubis inf-lat to merge with capsule deep to iliofemoral lig	
	3 Ischiofemoral – post, weakest of 3, from ischial pt of acetabular rim superolat’ly to femoral neck, med to base gter troch	
	4 Lig of head of femur – from acetabular notch to fovea for lig of head femur	
PROMPTS		
THIRD QUESTION (if needed)		
POINTS REQUIRED	1	
	2	
	3	
	4	
	5	
	6	
PROMPTS		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Cubital Fossa _____ NUMBER: Thurs PM Qu 5 _____

OPENING QUESTION	Describe the boundaries of the cubital fossa	COMMENTS
POINTS REQUIRED	1 Superiorly – imaginary line connecting the epicondyles	4 out of 5 to pass
	2 Medially – flexor muscles of forearm arising from common flexor attachment & medial epicondyle (pronator teres)	
	3 Laterally – extensor muscles of forearm arising from the lateral epicondyle & supraepicondylar ridge (brachioradialis)	
	4 Floor – brachialis and supinator muscles of the arm & forearm	
	5 Roof – deep fascia reinforced by bicipital aponeurosis, subcutaneous tissue and skin.	
PROMPTS	Look at your own cubital fossa	
SECOND QUESTION (if needed)	Describe the contents of the cubital fossa	First 4 to pass (and order correct)
POINTS REQUIRED	1 Brachial artery dividing into terminal branches; radial & ulnar arteries. It lies between	
	2 Biceps brachii tendon AND	
	3 Median nerve	
	4 Radial nerve – deep between brachioradialis and brachialis, dividing into deep and superficial branches	
	5 (Veins accompanying arteries)	
	6 Venepuncture veins (median cubital and medial and lateral antebrachial)	
PROMPTS		
THIRD QUESTION (if needed)		
POINTS REQUIRED	1	
	2	
PROMPTS		

COMMENTS

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Mandible, TMJ, Muscles of Mastication _____ NUMBER: 11/4 - 1

OPENING QUESTION	Demonstrate the features of the mandible?	COMMENTS
POINTS REQUIRED	1 Condylar process (head & neck)	5 = pass
	2 Ramus, notch	10 = 10
	3 Coronoid process	
	4 Angle	
	5 Mental & Mandibular foramen	
	6 Mental tubercle and symphysis	
	7 Alveolar process	
PROMPTS	Indicate features and ask	
SECOND QUESTION (if needed)	Describe the features of the Temporomandibular Joint?	
POINTS REQUIRED	1 Bones – condyle of mandible, articular tubercle & Mandibular fossa	2 = pass
	2 Disc – separates superior synovial cavity (gliding in/out) and inferior synovial cavity (hinge up/down)	Superior & inferior cavities = pass
	3 Postglenoid tubercle and Temporomandibular (lateral) ligament prevent posterior dislocation	
	4 Stylomandibular and Sphenomandibular ligaments weak.	
PROMPTS	Questions – bones, synovial cavities, ligaments	
THIRD QUESTION (if needed)	Describe the mandibular attachments of the muscles of mastication?	Ask only if doing well and sufficient time
POINTS REQUIRED	1 Temporalis – temporal fossa to medial coronoid & anterior ramus	2 to pass
	2 Masseter – maxillary process & zygomatic arch to angle & lateral ramus	
	3 Lateral Pterygoid – greater wing sphenoid and lateral surface Lateral Pterygoid Plate to joint capsule, disc & Pterygoid fossa on neck of mandible	
	4 Medial Pterygoid – medial surface Lateral Pterygoid Plate & tuberosity of maxilla to medial ramus below foramen	
PROMPTS	Nil	

COMMENTS Must pass questions 1 & 2 to pass overall

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Cardiac Chambers, Arterial Supply & Venous Drainage **NUMBER:** 11/4 - 2 _

OPENING QUESTION	Demonstrate the chambers of the heart and their borders?	COMMENTS
POINTS REQUIRED	1 Left ventricle	Need to identify chambers to pass
	2 Right ventricle – ant & post interventricular grooves	
	3 Right atrium & auricle	
	4 Left atrium & auricle – coronary groove	
	5 Crux of the heart	Additional information
PROMPTS	Ask candidate to demonstrate on model	
SECOND QUESTION (if needed)	Demonstrate the arterial supply to the heart?	
POINTS REQUIRED	1 RCA – SA nodal – <u>R marginal</u> – AV nodal – <u>post interventricular</u> (2/3) – interventricular septal	Underlined to pass
	2 LCA – <u>circumflex</u> – SA nodal (40%) – <u>L marginal</u> – post interventricular (15%)	
	3 LCA – <u>LAD</u> - ant 2/3 septum – lateral diagonal	
PROMPTS	Ask main branches of RCA & LCA	
THIRD QUESTION (if needed)	Demonstrate the venous drainage of the heart?	
POINTS REQUIRED	1 Coronary sinus	Coronary sinus to pass
	2 Great cardiac veins	
	3 Middle cardiac veins	
	4 Small cardiac veins	
	5 L post ventricular	
	6 L marginal	
	7 Anterior cardiac	
	8 Oblique veins on the L atrium	
PROMPTS	Ask to list veins	

COMMENTS Must pass Questions 1 & 2 to pass overall

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Median nerve: Course and distal supply

NUMBER: 11/4 - 3

OPENING QUESTION	Identify on this specimen the median nerve.	COMMENTS
POINTS REQUIRED	1 Identification of median nerve (numbered 16)	Correct = pass
PROMPTS	Indicate features of a nerve versus tendon or vessel	Prompt = no pass
SECOND QUESTION	Describe on the course of the median nerve in the forearm, using the photograph where able?	At least all of 2, 4 and 5 to pass
POINTS REQUIRED	1 Emerges from cubital fossa	
	2 Passes between two heads of Pronator teres (PT)	
	3 Descends deep to Flexor digitorum superficialis (FDS) (numbered 12) closely attached to fascial sheath	
	4 Continues distally between FDS and Flexor digitorum profundus (FDP)	
	5 Becomes superficial at wrist, passing between tendons of FDS and Flexor carpi radialis (FCR) (numbered 8); deep to Palmaris longus (PL) if present	
	6 Passes deep to Flexor retinaculum	
PROMPTS	If state a structure, get candidate to identify it on the specimen.	Identify FDS and FCR
THIRD QUESTION (if needed)	What are the structures supplied by the median nerve?	8 structures to pass
POINTS REQUIRED	1 No branches in arm	
	2 Articular branches to elbow joint	
	3 Muscular branches to PT; FCR; PL; FDS	
	4 Anterior interosseus nerve to PQ; FPL; ½ FDP; articular branches to wrist joint	
	5 Palmar cutaneous branch to skin of lateral part of palm and adjacent thenar eminence	Numbered 18
	6 Recurrent branch to thumb muscles (APB; OP; FPB)	Numbered 19
	7 Palmar digital branches to lumbricals 1,2 and cutaneous supply	Numbered 17
PROMPTS	What muscles are supplied by the median nerve? Identify the numbered branches – what do they supply?	

COMMENTS Must pass questions 1 & 2 to pass overall

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

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

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

No prompts.

COMMENTS Must pass questions 1 & 2 to pass overall

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Blood supply of the Gut

NUMBER: Friday am 5

OPENING QUESTION	Describe the branches of the abdominal aorta that supply the gut	COMMENTS
POINTS REQUIRED	1. Coeliac trunk T12	All 3 to pass
	2. SMA L1	
	3. IMA L3	
PROMPTS		
SECOND QUESTION (if needed)	Describe the arterial supply of the stomach.	2 of 3 branches to pass
POINTS REQUIRED	1. lesser curvature - left gastric (from coeliac trunk)	
	2. lesser curvature - right gastric (from hepatic)	
	3. posterior gastric from splenic	
	4. short gastric arteries from distal splenic	
	5. left gastro-omental (gastro-epiploic) from splenic	
	6. greater curvature - right gastro-omental (gastro-epiploic) from gastroduodenal (from hepatic)	
PROMPTS		
THIRD QUESTION (if needed)	Describe the arterial supply of the colon.	
POINTS REQUIRED	1. Superior mesenteric from aorta	
	a. Ileocolic, right colic, middle colic	
	b. Marginal artery	
	2. Inferior mesenteric artery	
	a. Left colic, sigmoid arteries,	
	b. Marginal artery	
	3. Anastomosis b/w Sup and Inf colic arts	

COMMENTS