VIVAs abdomen/pelvis

Question 4: Photo: Aorta/IVC/kidneys Major vessels, branches and course of	Identify the structures visible in this photo.	Kidneys, ureters, psoas major, diaphragm, adrenals, IVC 7, L renal vein 12, R renal v 23, aorta 1, celiac trunk 2, sup mesenteric art 28,	8 to pass
	Name the branches of the abdominal aorta	Single - coeliac trunk, superior mesenteric artery, inferior mesenteric artery Paired –common iliacs, ovarian/testiculars, superior and inferior adrenals, right and left inferior phrenics, lumbar arteries	6 to pass
	Name the branches of the coeliac trunk and what do they supply	Arises at T12, supplies liver, stomach, spleen, oesophagus and superior part of duodenum and pancreas branches are L gastric, common hepatic and splenic	Extra info

Question 2: **BONE: Sacrum**	a) Identify the features of this bone?	**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**	**Any 4 to pass**

1

Question 5 **Discussion: Abdomen surface anatomy + Transpyloric plane**	(a) Describe the transpyloric plane.	Transpyloric line (halfway between manubrium and symphysis pubis- typically at L1) Or half-way between the xiphisternum and umbilicus	
	(b) What are the anatomical structures transected at the transpyloric plane?	Pylorus Fundus of gall bladder Neck of pancreas SMA origin Hepatic portal vein Root of transverse mesocolon Duodenojejunal junction Hila of kidneys (L above R below) Hepatic and splenic flexures of the colon Conus medullaris	4 to pass

Question 5 **Discussion: Abdominal Aorta – Branches p313**	(a) Name the branches of the abdominal aorta	Anterior midline branches -**Celiac** -**Superior mesenteric** -**Inferior mesenteric** Lateral branches -Supra-renal -**Renal** -Gonadal Posterolateral -Subcostal -Inferior phrenic -Lumbar	4 **Bold** to + 3 others to pass
	(b) Describe the anatomy of the superior mesenteric artery.	Origin L1 level, midgut vessel, pancreas above, duodenum below, L renal v below	

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1 **XR: Pelvis**	Identify the bony features of this x-ray	**Iliac crest**, Ala of ilium **Sacro iliac joint, Sacrum** Lumber 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	(a) **6 Bold** + 3 others to pass
	Describe the anatomy of the iliopsoas muscle.	**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 **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	Name two muscles and origin and insertion

ACEM 2003.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: URINARY TRACT _____ **NUMBER:** 4 _____

OPENING QUESTION	WHAT STRUCTURES OF THE URINARY TRACT CAN YOU IDENTIFY ON THIS PHOTOGRAPH	**COMMENTS**
POINTS REQUIRED	URETERS X 2	2/2
	BLADDER	
PROMPTS		
SECOND QUESTION (if needed)	DESCRIBE THE RELATIONS OF THE RIGHT URETER	4 TO PASS
POINTS REQUIRED	PSOAS	
	GONADAL VESSELS GENITOFEMORAL NERVE	
	EXTERNAL/INTERNAL ILIAC ARTERY & VEIN	
PROMPTS		

COMMENTS

TOPIC 4	Abdominal Photograph	**COMMENTS**
QUESTIONS AND POINTS REQUIRED	Using the photograph as a guide, demonstrate the distal aorta and its branches: Inferior mesenteric Common, external and internal iliacs	All to pass
	What are the other branches of the abdominal aorta Single: coeliac, SMA Paired Visceral: renal, suprarenal, gonadal Paired Somatic: subcostal, inferior phrenic, lumbar	Coelica, SMA, renal to pass
	Can you find any of these on this photograph Gonadal	Bonus

SUBJECT: ANATOMY

TOPIC: Post abdo wall _____ **NUMBER: 1-5** _____

OPENING QUESTION	Identify the major structures on this photograph.	**COMMENTS**
POINTS REQUIRED	1	10 to pass
	2	
	3	
	4	
	5	
	6	
	7	
PROMPTS		
SECOND QUESTION (if needed)	What are the relations of the right ureter on this picture	3 to pass
POINTS REQUIRED	1	

ACEM 2005.2 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Bone:Pelvis **NUMBER 3.3**

OPENING QUESTION	**Identify the main features of this bone?**	**COMMENTS**
POINTS REQUIRED	3 bones*	*essential
	Acetabulum*, greater and lesser sciatic notches, ischial tuberosity, ischial spine, pubic tubercle, ASIS, obturator foramen, iliac crest, pubic rami, SI joint	7 to pass
PROMPT	**Identify the bones that make up this structure**	
SECOND QUESTION	**Describe the origin and course of the sciatic nerve.**	
POINTS REQUIRED	1L4,5,S1,2,3* from the triangular sacral plexus form from the ant divs of these nn to eventually be the tibial portion of the sciatic while the peroneal portion comes from post divs of L4,5, S1,2	4/7 to pass
	2 They join in pelvis, and exit under piriformis* (line b/w PSIS & tip of coccyx) thru gtr sciatic notch*	
	3 lies on ischium over post acetabulum*, next to bone b/w isch tuber & PSIS	
	4 under glut max* in buttock b/w gtr troch & isch tuberosity	
	5 vert down with hamstrings*	
	6 upper popliteal fossa* > tibial & peroneal nn.	
PROMPTS		

COMMENTS

ACEM 2005.2 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: X-ray Abdomen _____ **NUMBER: 1.2** _____

OPENING QUESTION	**Please demonstrate the major anatomical structures on this X-ray**	**COMMENTS**
POINTS REQUIRED	1 Stomach	4/6 to pass
	2 Large bowel: Could you please identify the parts of the large bowel?	
	3 Psoas	
	4 Liver	
	5 Kidneys	
	6 Bones: ribs, spine, pelvis, femurs	
PROMPTS	Demonstrate where you would expect to find the solid organs.	
SECOND QUESTION (if needed)	**On this Xray, please demonstrate the transpyloric plane.**	
POINTS REQUIRED	Passes through the lower border of L1	Needed to pass
THIRD QUESTION (if needed)	**What structures are defined by this plane ?**	
POINTS REQUIRED	Pylorus but it is free on mesentry	5/10 to pass
	Pancreas- head, neck and body	
	Gallbladder- fundus	
	Spinal cord ends- Conus Medulla	
	Supracolic compartment lies above- Liver, spleen and fundus of stomach	
	Infracolic below- SI and Colon	
	SMA leaves Aorta	
	SV joins SMV > Portal vein	
	Hila of both kidneys	
	9th costal cartilages at lat border rectus	

ACEM 2005.2 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Photo: Post abdominal wall _____ **NUMBER: 3.4** _____

OPENING QUESTION	**Please identify this structure**	**COMMENTS**
POINTS REQUIRED	Ureter	* Essential
PROMPTS		
SECOND QUESTION	**Please describe the course of the ureter from the kidney to bladder.**	
POINTS REQUIRED	1 Leaves hilum of kidney at level of L1-2 (slightly lower on right),	*
	2 passing down on psoas major which it leaves at the bifurcation of the common iliac artery,	
	3 crosses the SI joint at the pelvic brim	*
	4 Adheres to posterior parietal peritoneum in front of the internal iliac artery	
	5 It moves forward once reaching the ischial spine to enter the base of the bladder.	*
THIRD QUESTION	**Please identify the major vascular structures immediately related to it.**	
POINTS REQUIRED	testicular vessels, common iliac vein, external iliac artery, internal iliac artery, IVC, aorta	* 4 to pass
PROMPTS		
FOURTH QUESTION	**Identify the places where the ureter is usually narrowed.**	
	PUJ, pelvic brim, VUJ	*2/3 to pass

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1: X-ray Abdo CT	1.Identify the structures present in this CT of the abdomen with contrast.	Liver, spleen, kidneys, pancreas	At least 6 to pass (1 point only for kidneys)
	2. Which structures are retroperitoneal?	Pancreas, kidneys, aorta, IVC	At least 3 to pass
	3. Demonstrate the potential spaces for fluid collection in the supine position.	Hepatorenal space Splenorenal space	Need both to pass
4. Abdo CT – relations of spleen	1. Identify the organs and structures seen in this CT scan of the abdomen	Liver Pancreas Spleen Aorta IVC Kidneys – L & R	Pass = 5/6 **Prompt:** Name the structures you can see in this CT scan
	2. Describe the relationships of the spleen	1. lies deep to and along plane 9 and 11 ribs in left upper quadrant abdo 2. inferiorly left kidney and splenic flexure colon 3. superiorly and laterally diaphragm 4. medial stomach and pancreas 5. vascular supply splenic a. and veins lie deep	
4. Abdo CT – relations of liver	1. Please identify the relations of the liver as seen in this CT slice	1 chest wall and ribs 2 crus diaphragm 3 kidney and adrenal gland 4 IVC 5 duodenum 6 gallbladder	
	2. What is the blood supply of liver	1. hepatic artery 2. portal vein 3. 3 hepatic veins	
	3. What level do you think this CT slice is taken	1 probably L1	**Prompt:** SMA arises at L1
3. Photo – post adbo & pelvic walls – abdo aorta & iliac aa	1.Demonstrate the main structures shown on this photograph	Aorta IMA Common iliac aa Ext & int iliac aa L Femoral a IVC Common iliac vv L Femoral v R Testicular v Ureters Inguinal ligg	
	2. Describe the course and relations of the ureter		

ACEM 2007.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Abdo x ray/male genitalia _____ **NUMBER:** _____

OPENING QUESTION	Outline the course of the ureters on the Xray?	**COMMENTS**
POINTS REQUIRED	1) Hilum of R just below, L just above L1	3/4 for pass
	2) Run just inside the tips of transverse processes of lumber vert, on surface of psoas	
	3) Over SI joint, lying on bifurcation of common iliac	
	4) To ischial spine, and thence to pubic tubercle	
PROMPTS		
SECOND QUESTION	Outline the expected course of the abdominal aorta?	2/3 to pass
	10 Entry into abdomen at T12	
	2) Left of midline	
	3) Bifurcation – just below umbilicus L4	
PROMPTS		
THIRD QUESTION (if needed)	What is the lymphatic drainage of male genitalia?	2/2 to pass
POINTS REQUIRED	1) Testicles- run back along test artery to para aortic nodes, lying along L2 level	
	2) Scrotal and penile skin, to inguinal nodes	
PROMPTS		

ACEM 2007.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

TOPIC: Abdomen Photo: Left kidney _____ **NUMBER:** Fri a.m.-4 _____

OPENING QUESTION	Identify the vascular structures adjacent to the left kidney	**COMMENTS**
POINTS REQUIRED	1 1= abdominal aorta	
6 of 10 to pass	2 2=coeliac trunk	
	3 3=common hepatic artery	
	4 26=splenic artery	
	5 11= left renal artery	
	6 28=superior mesenteric artery	
	7 12= left renal vein 8 7= IVC 9 6=left gonadal vein 10 14=left adrenal vein	
PROMPTS		
SECOND QUESTION (if needed)	Identify structure 25 *(ureter)*. Where are the narrow points of the ureter?	
POINTS REQUIRED	1 PUJ	
	2 Pelvic brim	
	3 VUJ	
PROMPTS		

ACEM 2007.2 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY 6 September 2007 pm

TOPIC: PHOTO - ABDOMEN **NUMBER:** 5

OPENING QUESTION	What are the unpaired visceral branches of the abdominal aorta ?	**COMMENTS**
POINTS REQUIRED	1 coeliac trunk	3 for a pass
	2 superior mesenteric artery	
	3 inferior mesenteric artery	
	4	
	5	
	6	
	7	
PROMPTS		
SECOND QUESTION (if needed)	What are the branches of the coeliac trunk?	
POINTS REQUIRED	1 common hepatic artery	2/3 to pass
	2 splenic artery	
	3 left gastric artery	
	4	
	5	
	6	
PROMPTS		
THIRD QUESTION (if needed)	Demonstrate the major venous structures in this photo	
POINTS REQUIRED	1 IVC	4/5 to pass
	2 right and left renal veins (23 and 12)	
	3 left adrenal vein (14)	
	4 left gonadal vein (6)	
PROMPTS		

ACEM 2007.2 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY 7 September 2007 am

TOPIC: Photo- PELVIS **NUMBER:** 4

OPENING QUESTION	Identify the structures in this photo (prompt if needed)	**COMMENTS**
POINTS REQUIRED	1 Rectum No. 27	Need 5/8 to pass
	2 Uterus No. 6/12	
	3 Bladder No. 5	
	4 Sacrum Not numbered	
	5 Pubic symphysis No. 25	
	6 Anal canal No. 1	
	7 Cervix and vagina No. 7 and 24	
PROMPTS		
SECOND QUESTION (if needed)	Please show the potential spaces where free fluid can accumulate in the pelvis	
POINTS REQUIRED	1 rectouterine pouch (of Douglas) No. 26	Need 1 to pass
	2 vesicouterine pouch No. 34	
	3	
	4	
PROMPTS		
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 – symphisis, 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

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 – symphisis, 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 foven for lig of head femur	
PROMPTS		

ACEM 2008.1 PRIMARY VIVA EXAMINATION

SUBJECT: ANATOMY

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

OPENING QUESTION	This is a photo of the posterior abdominal wall. Please identify the major structures.	**COMMENTS**
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		

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1: (Photo)	What structures can you identify in this photograph?	**IVC** **Aorta** **Ureters** **Bladder** **Common iliacs** **Internal/ext iliacs** **Inguinal ligament** **Femoral vessels** **Testicular vessels** **Psoas** **If not already identified, point to ureter and ask, 'what is this structure?'**	Need 6 unprompted to pass
Question 2: Can demonstrate on photo	Describe the course of the ureters, and identify the 'narrow' points.	• **25 – 30 cm long** • **run from renal hila inferiorly** • **marked on x ray as running medial to tips of transverse processes** • **pass over pelvic brim at bifurcation of common iliacs** • **on lat wall of pelvis, inclining medially to insert post wall of bladder at VUJ** • **Narrow points are at..PUJ** • **...pelvic brim** • **....VUJ**	4/7 and 2 narrow points to pass
Question 3: (Not related to photo)	What is the arterial blood supply of the ureter?	Arterial Renal arteries in upper portion Gonadal vessels, sometimes in upper Mid portion from branches off abd aorta Inferiorly by branches of common iliacs Venous Renal and gonadal vessels.	Renal and gonadal to pass

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 distsl 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. Anastamosis b/w Sup and Inf colic arts	

Question 2: Bone: Pelvis	a. What bones make up this structure, and what are their major features?	a. Pelvis • **Acetabulum** (with acetabular notch) • **Obturator foramen** (with obturator groove) • **Ilium** ○ Ala ○ **Iliac crest** ○ Inferior, anterior and posterior gluteal lines ○ **Anterior superior**, anterior inferior, posterior superior and posterior inferior iliac spines ○ Greater sciatic notch • **Ischium** ○ **Ischial spine** ○ Lesser sciatic notch ○ Ischial tuberosity ○ Ischiopubic ramus • **Pubis** ○ **Superior pubic ramus** ○ Pubic symphysis	a. Need all bold to pass, and able to demonstrate aspects of bony parts

ACEM PRIMARY 2010/1 ANATOMY VIVA Day Friday Session: am *Candidate Number*..... AGREED MARK.....

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1: Xray: CT abdomen	a. Identify the intra-abdominal structures visible on this CT scan	**Liver**/ porta hepatis /duodenum/IVC / **pancreas** /splenic vein/**kidneys/spleen/ aorta**/ coeliac trunk/ crus of diaphragm/ small bowel	Bold + 2 to pass
	b. Describe the relations of the right kidney (see diagrams Moore page 291-293,324)	Surrounded by peri-nephric fat Superiorly- R adrenal + liver+ portal vein Supero-laterally- Right lobe of liver Medially-Psoas + vertebrae Posteriorly- 12th Rib + abdo muscles(TA, IO, EO),deep back muscles (erector spinae/quadratus lumborum) Anteriorly- gall bladder + duodenum + ascending colon Antero-medially-R renal vein + IVC, pancreas more anteriorly	Correct structures related in 3 directions to pass
Question 3: Discussion: Anatomy of male urethra	Describe the parts of the male urethra. and the course of each	Internal urethral orifice (bladder) > Intramural > **prostatic urethra** > external urethral sphincter (= **membranous** (intermediate) urethra), thru perineal membrane to spongy urethra in bulb of penis > **spongy(penile)** in corpus spongiosum > external orifice.	Must name 3 parts
	Where is it narrowest?	Narrow:Membranous part and external orifice	1 of 2
	In a case of rupture of the spongy urethra, where does urine extravasate?	Around the penis/Scrotum/Anterior abdo wall/NOT into the thigh	Extra info
Question 4: Photo: Pelvis Major vessels, course of ureter	Identify the ureters in this photo Describe the course of the ureter Where are its points of narrowing?	- **exit the hilum at PUJ** - runs inf at level of trans proc along psoas - **cross the pelvic brim at the bifurcation of the common iliac arteries/SIJ** - along the lateral wall of the pelvis, towards ischial spines - turns medially to **enter the base of the bladder**	Must ID left and right Narrowings in bold
	What vascular structures you can identify in this photo?	Aorta, left and right iliac arteries, IVC, left and right iliac veins, femoral artery, femoral vein, inferior mesenteric artery, gonadal vessels	Aorta, IVC, fem and iliacs to pass
Question 4: Photo: Female Pelvis	a. This is a midline sagittal section of a pelvis. Name the major anatomical structures. PROMPT: this is a female pelvis	Major: **Pubic symphysis, Bladder, Vagina, Uterus, Rectum, Sacrum, Blue marker through cervix., External anal sphincter.** Minor: Ovary, Tube, suspensory ligament (difficult), L5/S1 disc, Sigmoid, Ureter (difficult)	5 of bold to pass
	b. Describe the boundaries and relations of the Pouch of Douglas	"Recto-uterine pouch". Inferior most extension of the peritoneal cavity, between anterior rectum and posterior uterus. Close to cervix and posterior fornix of vagina. Open above to peritoneum	Rectum, uterus, open above.

Question 4: Photo pelvis	Please demonstrate the major anatomical structures in the photo	Aorta Common iliac vessels Internal and external iliac veins and arteries Ureters Bladder Psoas muscle	At least 8 items to pass
	Please describe the innervation of the bladder	Presynaptic sympathetic fibers (T11-L2/3) via hypogastric plexus (Excite internal urethral sphincter) Presynaptic parasympathetic fibers (Motor to detrusor and inhibitarory to internal urethral sphincter) (S2-4) via Splanchnic nerve and inferior hypogastric nerve These synapse with post synaptic neurone on or near bladder wall Inferior to pelvic line (reflex and pain) -Visceral afferent follow P/S fibers retrograde to S2-4 spinal ganglia Superior to pelvic line (pain)- Follow sympathetic fibers retrograde to T11-L2/3 Somatic to external urethral sphincter, urethra via pudendal nerve (S2-4)	To pass: Describe the effects of sympathetic and parasympathetic stimulation on the bladder
	Please identify any nerves that innervate the bladder.	Inferior/superior hypogastric plexus, left and right hypogastric nerve Splanchnic nerve	Bonus question

TOPIC	QUESTION	ESSENTIAL KNOWLEDGE	NOTES
Question 1: (Photo)	Please indentify 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.	• **Posteriorly…ivc, portal vein, r renal vein/artery, bile duct, sup mesenteric vessels, aorta, L2 vertebrae, L kidney and L adrenal** • **Lateral to right…duodenum 'C' shape around head** • **Lat to left…hilum of spleen** • **Anteriorly…stomach, peritoneum, lesser omentum, bowel, sup and inf panc-duod arteries**	6 to pass