

Abdomen / Pelvis MCQs
Section 1

- 1) A midline abdominal incision below the umbilicus passes through all the following EXCEPT:
 - a) pyradmidalis
 - b) linea alba
 - c) extra peritoneal fat
 - d) transversalis fascia
 - e) Scarpa's fascia

- 2) The spleen:
 - a) has a lower pole which normally projects forward to the anterior axillary line
 - b) lies between the 8th and 10th ribs
 - c) has a long axis lying in the line of the 9th rib
 - d) as it enlarges, glides in contact with the anterior abdominal wall in front of the splenic flexure of the colon
 - e) when palpable on abdominal examination, is identified by being resonant to percussion

- 3) Which is the most common site for the appendix found at appendicectomy?
 - a) retro-ileal
 - b) reto-caecal
 - c) pelvic
 - d) anterior to terminal ileum
 - e) below terminal ileum overlying psoas

- 4) The abdominal aorta:
 - a) passes into the abdomen behind the diaphragm at the level of the 10th thoracic vertebra
 - b) bifurcates at the level of the body of the 2nd lumbar vertebra
 - c) has a surface marking for its bifurcation as 2cm below and to the right of the umbilicus
 - d) gives rise to the coeliac artery at the level of the body of the 10th thoracic vertebra
 - e) has the renal arteries arising at the level of the body of the 1st lumbar vertebra

- 5) With regard to the spleen, which is NOT true?
 - a) in splenomegaly, the splenic flexure of the colon lies superficial to its anterior border
 - b) its anterior border is notched
 - c) its medial relations include left kidney, lienorenal ligament, pancreas and lesser sac
 - d) it lies between the 9th and 11th ribs
 - e) accessory spleens occur in 10% of people

- 6) With regard to the duodenum, which is NOT true?
 - a) the duodenal cap has plicae circulares which are often evident on x-ray
 - b) the third part may be compressed by the superior mesenteric artery
 - c) the second part lies at level of 2nd lumbar vertebra in cadavers
 - d) the duodenal cap lies upon bile duct, hepatic artery and portal vein
 - e) the accessory pancreatic duct opens into it proximal to the ampulla of Vater

- 7) The ejaculatory ducts:
- are formed by the union of the prostatic ducts and the ducts of the seminal vesicle
 - lie on the superior surface of the bladder
 - open into the membranous urethra
 - contract with parasympathetic stimulation
 - have none of the above properties
- 8) The ureter passes deep to the:
- femoral nerve
 - gonadal artery
 - psoas muscle
 - genitofemoral nerve
 - common iliac artery
- 9) With respect to the testicle:
- the tunica albuginea overlies tunica vaginalis
 - the head of the epididymis is attached to the lower pole of the testis
 - the appendix testis (if present) is attached to the upper pole of the testicle
 - testicular and scrotal lymph drainage is the superficial inguinal nodes
 - parasympathetic supply is via the T10 segment of the cord
- 10) With regard to the spleen, which is NOT true?
- it is in direct contact with the lesser sac
 - it projects into the greater sac
 - its anterior border is notched
 - it receives both sympathetic and parasympathetic supply
 - lymph drainage is via retropancreatic channels to the coeliac nodes
- 11) Regarding abdominal vascular anatomy, all of the following are true EXCEPT:
- the left renal vein lies under the superior mesenteric artery
 - the appendix is supplied by the ileo colic branch of the superior mesenteric artery
 - the left gastro epiploic artery is a branch of the splenic artery
 - the portal vein lies posterior to the pylorus
 - the duodenum receives no supply from the superior mesenteric artery
- 12) With regard to the ureter, which is NOT true?
- it is narrowed at its halfway mark
 - it crosses the genitofemoral nerve under cover of peritoneum
 - the upper part of the right ureter lies behind the duodenum
 - it lies just lateral to the tips of the transverse processes of L3-5
 - it is adherent to the peritoneum of the posterior abdominal wall
- 13) With regard to the female pelvis, which is NOT true?
- the cervix is separated from the rectum by the Pouch of Douglas
 - the cervix is separated from the bladder by the vesicouterine pouch
 - the ureter passes 1-2cm lateral to the cervix
 - the ureter passes under both the broad ligament and the uterine artery
 - lymph drainage from the body of the uterus includes the inguinal nodes

- 14) With regard to the duodenum:
- a) it is wholly retro-peritoneal
 - b) it lies wholly inferior to gallbladder
 - c) the third part overlies the superior mesenteric vessels
 - d) the second part projects slightly behind the right renal hilus
 - e) the head of pancreas is wholly contained within its c-shaped loop
- 15) The transversalis fascia contributes to which of the following structures on the anterior abdominal wall?
- a) superficial inguinal ring
 - b) deep inguinal ring
 - c) inguinal ligament
 - d) sac of an indirect inguinal hernia
 - e) anterior wall of the inguinal canal
- 16) The transpyloric plane of the abdomen (passing through the lower border of L1 vertebra) passes through:
- a) the spleen
 - b) the third part of the duodenum
 - c) the tail of the pancreas
 - d) the origin of the superior mesenteric artery
 - e) the fundus of the gallbladder
- 17) Afferent pain fibres for the biliary tract:
- a) as far as known do not exist; pain sensation relates to inflamed overlying parietal peritoneum
 - b) run with the vagus nerve to the Nucleus of the Solitary Tract
 - c) may run with the right phrenic nerve
 - d) run with spinal nerves to T2-5
 - e) do not respond to distension of the viscus
- 18) With regard to the usual vasculature of the abdomen, which is NOT true?
- a) the splenic vein mainly drains into the inferior vena cava
 - b) the portal vein drains nearly all of the gastrointestinal tract and unpaired abdominal glands except liver
 - c) the left gastroepiploic artery and the short gastric arteries are branches of the splenic artery
 - d) the right gastric artery is a branch of the hepatic artery
 - e) the right gastroepiploic artery is a branch of the common hepatic artery
- 19) Which is NOT related to the kidneys as indicated:
- a) the pleura posteriorly
 - b) the second part of the duodenum, anterior to the right kidney
 - c) the tail of the pancreas, anterior to the left kidney
 - d) the peritoneum of the lesser sac, anterior to the left kidney
 - e) the splenic artery, anterior to the lower pole of the left kidney
- 20) With regard to the kidneys, which is NOT true?
- a) the renal nerves are from spinal segment T12-L1
 - b) at the hilum, the vein is anterior to the artery which is anterior to the ureter
 - c) in horseshoe kidneys, ureters pass behind the isthmus of the kidney substance
 - d) percutaneous renal biopsy is via a point 2.5cm below the 12th rib
 - e) renal fascia helps prevent spread of infection from perinephric abscesses

- 21) With regard to the urethra in the young adult male, which is NOT true?
- a) the prostatic urethra is narrower than the membranous urethra
 - b) it is approximately 20cm long
 - c) has a short dilated region just proximal to the external urethral meatus
 - d) it is horizontal in cross-section when empty
 - e) the bulbous part is part of the spongy urethra
- 22) The first part of the duodenum:
- a) lies at the level of L2 in the supine body
 - b) is approximately 10cm long in the adult
 - c) partially overlies the right crus of the diaphragm and psoas muscle
 - d) is entirely retroperitoneal
 - e) receives the common opening of the bile duct on its posteromedial wall
- 23) Which of the following forms the posterior wall of the inguinal canal?
- a) conjoint tendon
 - b) internal oblique muscle
 - c) transversus abdominus muscle
 - d) lacunar ligament
 - e) external oblique muscle
- 24) Fibres of transversus abdominus arise from which part of the inguinal ligament?
- a) medial one third
 - b) lateral one third
 - c) lateral two thirds
 - d) lateral half
 - e) middle one third
- 25) A patient presents with a deep stab wound high up in the costovertebral angle beneath the 12th rib on the left side. The most likely internal injury is?
- a) laceration of the infra-renal aorta
 - b) laceration of the right renal vascular pedicle
 - c) puncture of the 3rd part of the duodenum
 - d) puncture of the 4th part of the duodenum
 - e) pneumothorax of the left lung
- 26) Concerning the abdominal aorta and branches:
- a) the inferior mesenteric artery arises below the L4 lumbar arteries
 - b) the superior mesenteric artery arises at the level of L2
 - c) the renal artery arises below the level of the superior mesenteric artery
 - d) the suprarenal arteries arise above the coeliac trunk
 - e) the coeliac trunk is the highest branch of the abdominal aorta
- 27) The relations of the THIRD part of the duodenum include:
- a) the hilum of the right kidney
 - b) the attachment of the transverse mesocolon
 - c) the inferior pole of the right kidney
 - d) the superior mesenteric vein
 - e) the portal vein

- 28) All of the following are true regarding the pancreas EXCEPT:
- the neck and body of the pancreas lie anterior to the first lumbar vertebrae
 - the neck of the pancreas lies over the right and left renal veins at the level of L2 vertebra
 - the splenic artery supplies all of the pancreas
 - parasympathetic vagal fibres stimulate the exocrine secretion from the gland
 - the uncinata process drains via an accessory pancreatic duct into the duodenum
- 29) The spleen:
- weights 15 ounces
 - lies between the 8th and 11th ribs
 - has an identifiable notch on its posterior border
 - is supplied with parasympathetic fibres from coeliac plexus
 - lympatic drainage is to coeliac nodes
- 30) Regarding the kidneys:
- the right kidney lies at a lower level to the left kidney
 - they lie inferior to the pleura
 - the hilum of the left kidney is separated from the peritoneum by the duodenum
 - the renal fascia encloses the kidney and suprarenal gland within the same sheath
 - the renal pelvis is lined with columnar epithelium
- 31) Regarding the ureters, which is INCORRECT?
- the line of projection of the ureter on a radiograph is medial to the tips of the transverse processes of the lumbar vertebrae and crosses the pelvic brim at the sacroiliac joint
 - they exhibit peristaltic activity when stimulated
 - they are lined by transitional epithelium with a thick muscularis mucosae
 - they are supplied with sympathetic fibres from T11-L2
 - they are crossed superficially by the gonadal vessels
- 32) Regarding the inguinal canal:
- the deep inguinal ring lies 1cm above and at the junction of the lateral third and medial two thirds of the inguinal ligament
 - the deep inguinal ring is formed by an opening in the transversalis fascia
 - an indirect inguinal hernia bulges into the inguinal triangle, posterior to the canal and medial to the inferior epigastric artery
 - contains the spermatic cord that has two fascial layers/coverings and eight contents
- 33) Which structure does not enter the inguinal canal through the deep inguinal ring?
- testicular artery
 - vas deferens
 - ilioinguinal nerve
 - genital branch of genitofemoral nerve
 - artery to the vas deferens
- 34) The testis:
- the epididymis arises from the lower pole of the testis
 - the tunica vaginalis surrounds the testis but doe not encase the epididymis
 - vas deferens ascends on the anterior surface of the testis
 - the testicular appendix lies on the testis upper pole near the origin of the epididymis

- 35) The testicular blood supply:
- is mainly from the ductal artery
 - the right drains directly into the inferior vena cava
 - venous drainage does not have valves
 - a varicocele is more common on the right than the left
- 36) The transpyloric plane:
- lies on a line connecting left and right 10th costal cartilages
 - lies at the level of T12
 - lies at the origin of the superior mesenteric artery off the aorta
 - is 2cm below the xiphisternum
- 37) Regarding potential spaces in the abdomen:
- the entrance to the lesser sac is inferiorly via the transverse mesocolon foramen
 - the right hepatorenal pouch is the lowest lying region of the peritoneal cavity in the supine position (excluding pelvis)
 - the peritoneal cavity is divided into supracolic and infracolic by the epiploic foramen
 - the root of the mesentery of the small intestine is a small 2cm area at the duodenojejunal junction
- 38) The foregut:
- includes from the abdominal aorta to the end of the duodenum
 - is supplied by branches of the superior mesenteric artery
 - venous drainage includes the blood from the lower third of the oesophagus
 - drains entirely into the splenic vein
- 39) The midgut:
- is from the opening of the bile duct into the duodenum to the ileocaecal junction
 - all venous drainage is to the superior mesenteric vein
 - superior mesenteric artery lies on the right side of the superior mesenteric vein
 - superior mesenteric artery originates off the aorta at L3
- 40) The inferior mesenteric artery arises:
- at L3
 - behind the inferior border of the third part of the duodenum
 - at the level of the umbilicus
 - 3-4cm above the aortic bifurcation
 - all of the above
- 41) The nerve supply to the stomach:
- the anterior vagal trunk alone controls the pyloric sphincter
 - the posterior vagal trunk alone controls the pyloric sphincter
 - secretion is controlled by sympathetic supply
 - the posterior vagal trunk is in contact with the left side of the oesophagus
- 42) The liver:
- lies from the 7th to the 11th left ribs along the midaxillary line
 - is normally completely under the costal margin
 - the upper margin is the 4th costal cartilage
 - blood supply divides into left and right supplying the lobes as divided by the falciform ligament

- 43) The spleen:
- is a retroperitoneal organ
 - lies along the axis of the left 10th rib
 - lymphatics drain to the superior mesenteric paraaortic nodes
 - pain fibres accompany sympathetic fibres and pain may radiate in the distribution of thoracic dermatomes 6-10
- 44) Which nerve passes through psoas muscle and emerges anteriorly to run down the front of the muscle?
- ilioinguinal
 - iliohypogastric
 - genitofemoral
 - lateral cutaneous nerve of the thigh
- 45) Regarding the anterior abdominal wall:
- the arcuate lines lie midway between the symphysis pubis and umbilicus
 - between the umbilicus and the lateral margin transversus abdominis aponeurosis lies posterior the rectus
 - the inferior epigastric artery originates from the internal iliac
 - it gives support to the liver and spleen
 - the ilioinguinal nerve passes through the deep inguinal ring
- 46) Pelvic joints and ligaments:
- the sacroiliac joint is a fibrous joint between the auricular surfaces of the ilium and sacrum
 - the wedge shape of the sacrum contributes to its stability
 - the coccygeous muscle lies on the pelvic surface of the sacrotuberous ligament
 - the sacrotuberous and sacrospinous ligaments enclose the greater sciatic foramen
 - the iliolumbar ligament is V-shaped with the apex attached to L5
- 47) Pelvic joints and ligaments
- muscles of pelvis include obturator externus and piriformis
 - piriformis arises from the lower third part of the sacrum
 - the sigmoid colon becomes the section at the level of the 4th part of the sacrum
 - the rectum has no mesentery
 - the pelvic brim follows the line of the pubic crest, pectineal line of pubis, iliac crests and ala and promontory of the sacrum
- 48) Perineum:
- the lymphatic drainage from the scrotum goes to para-aortic nodes
 - lymphatic drainage from the rectum passes to internal iliac nodes from the upper part and to superficial inguinal group from the lower part
 - superior rectal branches of the pudendal nerves supply the external and sphincter
 - the internal anal sphincter is composed of skeletal muscle
 - the anal canal consists of inner circular muscle fibres and outer longitudinal fibres
- 49) Nerves of pelvis, branches of sacral plexus include all EXCEPT:
- nerves to piriformis
 - pelvis splanchnic nerve
 - obturator nerve
 - pudendal nerve
 - posterior femoral cutaneous nerve

Abdominal / Pelvis

Section 1 - Answers

1	A	26	C
2	D	27	D
3	B	28	C
4	D	29	E
5	A	30	A
6	A	31	C
7	E	32	B
8	B	33	C
9	C	34	D
10	D	35	B
11	E	36	C
12	D	37	B
13	B	38	C
14	E	39	B
15	B	40	E
16	D	41	A
17	C	42	A
18	A	43	B
19	E	44	C
20	C	45	B
21	A	46	E
22	C	47	D
23	A	48	?B
24	D	49	C
25	E		

Section 2

- 1) All but which are transected / at the level of the transpyloric plane?
 - a) superior mesenteric artery leaves aorta
 - b) splenic vein joins superior mesenteric vein to become the portal vein
 - c) hila of kidneys
 - d) lower border L1 vertebra
 - e) gall bladder

- 2) The anterolateral abdominal muscles:
 - a) external oblique muscle arises by eight digitations from back of lower eight ribs and interdigitates with serratus anterior and pectoralis major
 - b) external oblique fibres run obliquely upwards and forwards
 - c) the lower border ext-oblique forms the inguinal ligaments
 - d) internal oblique inserts into the line alba from a single aponeurosis
 - e) transversus abdominus runs anterior to rectus abdominus until the cruciate line

- 3) The anterior abdominal wall:
 - a) the deep surface above the umbilicus has lymphatic drainage to mediastinal nodes
 - b) the deep surface below the umbilicus has lymphatic drainage to the internal iliac and paraaortic nodes
 - c) rectus abdominus is supplied by lower intercostal and subcostal nn (T8-T10)
 - d) internal oblique and transversus abdominus are supplied solely by the iliohypo??? and ilioinguinal nerves
 - e) the superior and inferior epigastric vessels (arteries) anastomose within the body of the rectus muscle

- 4) Contents of the deep inguinal ring include all but:
 - a) ilioinguinal nerve
 - b) vas deferens
 - c) cremasturic artery
 - d) genital branch of the genitofemoral ligament
 - e) obliterated remains of the processes vaginalis

- 5) Referred pain from which organ may be felt in the cutaneous distribution of the obturator nerve?
 - a) bladder
 - b) prostate
 - c) ovary
 - d) uterus
 - e) sigmoid colon

- 6) Within the anal canal are anal cushions (dilated venous spaces and avastomoses)
 - a) 3, 7 and 11 o'clock
 - b) 2, 6, and 10 o'clock
 - c) 3, 6 and 11 o'clock
 - d) 1, 7 and 12 o'clock
 - e) 1, 7 and 9 o'clock

Section 2

Answers

1	C
2	C
3	A
4	A
5	C
6	A

1 Regarding the inguinal canal

- A The deep inguinal ring is an opening in internal oblique
- B The superior epigastric artery is located deep to the posterior wall medial to the deep ring
- C An indirect hernia passes through the deep inguinal ring
- D A direct hernia passes lateral to the deep inguinal ring
- E The floor of the inguinal canal is reinforced laterally by the lacunar ligament

2 Contents of the spermatic cord include all of the following EXCEPT

- A Ductus deferens
- B Testicular artery
- C Pampiniform plexus
- D Ilioinguinal nerve
- E Genital branch of the genitofemoral nerve

3 Regarding the testis

- A Leydig cells secrete testosterone
- B The epididymis is located posteromedially
- C Lymphatic drainage is to the inguinal lymph nodes
- D Arterial supply is from the aorta just above the renal arteries
- E The right testicular vein drains to the right renal vein

4 The following structures are related to the transpyloric plane EXCEPT

- A Coeliac trunk
- B Tip of the 9th costal cartilage
- C Hilum of the kidney
- D Origin of the portal vein
- E Body of the pancreas

5 All of the following are retroperitoneal structures EXCEPT

- A Cisterna chyli
- B Sympathetic trunk
- C Duodenum
- D Pancreas
- E Ureter

6 The celiac trunk

- A supplies the gut from the entrance of the bile duct to the splenic flexure of the colon
- B gives rise to the inferior pancreaticoduodenal artery
- C is the 1st branch of the abdominal aorta
- D arises from the aorta at the level of L2
- E supplies the lower part of the oesophagus

7 The superior mesenteric artery

- A arises from the aorta at the level of T11
- B passes anterior to the body of the pancreas
- C passes anterior to the 3rd part of the duodenum
- D gives the superior pancreaticoduodenal branch
- E supplies the jejunum

8 The inferior mesenteric artery

- A supplies the hindgut as far as the dentate line
- B arises at the level of L1
- C passes posterior to the 3rd part of the duodenum
- D crosses the ureter at the pelvic brim
- E gives rise to the right colic artery

9 Regarding the duodenum

- A All of the duodenum is retroperitoneal
- B The 3rd part receives the bile duct
- C The 2nd part passes over the hilum of the right kidney
- D The 3rd part is crossed by the superior mesenteric artery
- E The 4th part is 5 cm long

10 Regarding the liver

- A The caudate lobe is bounded by the ligamentum venosum and the inferior vena cava
- B The left lobe extends approximately 12cm to the left of the midline
- C The gall bladder is at the tip of the 11th costal cartilage
- D The bare area lies against the duodenum
- E Porta hepatis contains the hepatic and portal veins

11 Regarding the spleen

- A It lies between the 7th and 9th ribs
- B The tail is contained in the lienorenal ligament
- C The head is immediately anterior to the aorta
- D The tail lies in the transpyloric plane
- E The main blood supply is from the left gastric artery

12 Regarding the abdominal aorta

- A It commences at T10 as it passes through the aortic opening of the diaphragm
- B The first branch is the celiac trunk
- C It terminates at the level of L2
- D The gonadal arteries arise above the origin of the superior mesenteric artery
- E The median sacral artery is a small posterior branch just before bifurcation

1	C
2	D
3	A
4	A
5	C
6	E
7	E
8	A
9	D
10	A
11	B
12	E

1. Regarding the urinary tract

- a. The narrowest points of the ureter are at the pelviureteric junction, where it crosses the pelvic brim, and at the vesicoureteric junction
- b. Kidney innervation is derived from segments L2-L5
- c. The hilum of the right kidney lies just above the transpyloric plane 5 cm from the midline
- d. The hilum of the right kidney lies lateral to the psoas
- e. The left kidney lies over the tenth, eleventh and twelfth ribs

2. With regard to the blood supply of the rectum and anus

- a. It is principally the inferior rectal artery
- b. The anal canal is a site of porto-systemic anastomosis
- c. The veins do not correspond to the arteries
- d. The inferior mesenteric artery changes to the superior rectal artery at L3
- e. The vessels do not supply the full thickness of the anal wall

3. Lymph drainage of the testes are to

- a. The deep inguinal nodes
- b. The mediastinal nodes
- c. The para-aortic nodes
- d. The pectoral group of axillary nodes
- e. The external iliac nodes

4. Lymph drainage of the scrotum is to

- a. The superficial inguinal nodes
- b. The internal iliac nodes
- c. The deep inguinal does
- d. The external iliac nodes
- e. None of the above

5. Regarding radiological imaging of the gastrointestinal tract

- a. The terminal ileum can be identified by haustrations
- b. Haustrations represent the taeniae coli
- c. Air fluid levels on an erect abdominal X-ray are diagnostic of large bowel obstruction
- d. Gas should always be visible in the rectum
- e. Small bowel is always visible on a normal abdominal X-ray

6. Regarding the kidneys

- a. Each weighs about 340 grams
- b. The left kidney lies below the transpyloric plane
- c. The iliohypogastric and ilioinguinal nerves lie behind the posterior surface of the kidney
- d. Each kidney has six segments
- e. The hilum is separated from the peritoneum on the right side by the 3rd part of the duodenum

7. Regarding the ureters

- a. They exit the hilum behind the renal artery
- b. They are a continuation of the renal pelvis which is formed by the union of 10 major calyces
- c. They are each 40cm long
- d. On a radiograph they run just lateral to the transverse processes of the lumbar vertebrae
- e. The lower ends are supplied by the ureteric branch of the renal artery

8. All of the following are relations of the body of the pancreas EXCEPT:

- a. Left crus of diaphragm
- b. Left psoas muscle
- c. Left kidney hilum
- d. Bile duct
- e. Lesser sac

9. Which of the following is INCORRECT?

- a. The inguinal canal of the female contains the round ligament of the uterus
- b. The deep inguinal ring is an opening in transverses muscle
- c. The spermatic cord in the male emerges from the deep inguinal ring
- d. The inguinal canal lies above the medial half of the inguinal ligament
- e. The roof of the inguinal canal is formed by lower edges of internal oblique and transverses muscles

10. The duodenum

- a. Is a retroperitoneal structure
- b. Is 25cm in length
- c. Lies between the levels of L2-L4
- d. In its fourth part lies to the right of the aorta
- e. All of the above

11. The highest branch of the abdominal aorta is

- a. Right suprarenal artery
- b. Celiac trunk
- c. Left renal artery
- d. Left gonadal artery
- e. Superior mesenteric artery

12. The main vessel supplying the body of the pancreas is the

- a. Superior pancreaticoduodenal artery
- b. Splenic artery
- c. Left gastric artery
- d. Left gastroepiploic artery
- e. Inferior pancreaticoduodenal artery

13. All of the following about the abdominal aorta are correct EXCEPT:

- a. It passes between crura of the diaphragm at the level of T12 vertebra and terminates at body of L4
- b. It is crossed by the splenic vein below the celiac trunk and above the superior mesenteric artery
- c. It has the uncinata process of the pancreas lying anteriorly
- d. It gives off 5 paired lumbar arteries
- e. It continues as the median sacral artery

14. The ureter

- a. Passes anterior to genitofemoral nerve
- b. Develops from the metanephric cap
- c. Is represented by dermatome L2
- d. In the male, is crossed anteriorly by the ductus deferens
- e. Passes anterior to the uterine artery in the female

15. The abdominal aorta is crossed anteriorly by

- a. Left renal artery
- b. Inferior mesenteric artery
- c. Left renal vein
- d. Right gonadal artery
- e. Right renal vein

16. Which is true of the superior mesenteric artery and its branches?

- a. Right colic artery is the main supply of the caecum
- b. Superior mesenteric artery runs anterior to the 1st part of the duodenum
- c. Right colic artery passes behind the right ureter
- d. Superior mesenteric arises from aorta at level of L2
- e. Main trunk of the superior mesenteric artery ends at the level of Meckel's diverticulum

17. Which is true of the inferior mesenteric artery and its branches?

- a. Inferior mesenteric ends as the superior rectal artery
- b. The main trunk crosses the left ureter, but its branches pass behind it
- c. It arises from the aorta at the level of L2
- d. The descending branch of the left colic supplies the sigmoid colon only
- e. There is very little anastomosis between the branches

18. Direct tributaries of the portal vein include all but

- a. Right gastric vein
- b. Short gastric vein
- c. Splenic vein
- d. Superior pancreaticoduodenal vein
- e. Left gastric vein

19. Which is the correct portosystemic anastomosis?

- a. Portal = tributary of inferior mesenteric vein, systemic = tributary of internal iliac vein
- b. Portal = periumbilical vein, systemic = phrenic veins
- c. Portal = intrahepatic portal branches, systemic = azygos vein
- d. Portal = left gastric vein, systemic = IVC via oesophageal veins
- e. Portal = middle rectal vein, systemic = inferior rectal vein

20. Which is not true of the surface markings of the liver?

- a. Lies below ribs 7-11 in the right midaxillary line
- b. Highest point on right is 5th rib
- c. Superior surface crosses the xiphisternal joint
- d. Inferior margin lies level with right costal margin in most cases
- e. Highest point on left is 6th intercostal space

21. Which is the correct order of structures in the porta hepatis (anterior-posterior)

- a. hepatic arteries, portal veins, hepatic ducts
- b. portal veins, hepatic ducts, hepatic arteries
- c. hepatic ducts, cystic duct, hepatic arteries, portal veins
- d. hepatic ducts, hepatic arteries, cystic duct, portal veins
- e. hepatic ducts, hepatic arteries, portal veins

22. Which is not a structure of the retroperitoneum?

- a. Kidney
- b. Adrenal gland
- c. Cisterna chyli
- d. Spleen
- e. Pancreas

23. Which is not a structure in the transpyloric plane?

- a. Pancreas
- b. Superior mesenteric artery origin
- c. Fundus of gallbladder
- d. Tip of 9th costal cartilage
- e. Lower pole of right kidney

24. Regarding the relations of the ureter, which is INCORRECT?

- a. Cross the vas deferens in males
- b. Medial to the transverse process of lumbar spine
- c. Cross the genitofemoral nerve
- d. Cross the SI joint
- e. ?

25. Which is true of colon?

- a. Ascending is longer than descending
- b. Only part suspended on mesentery is transverse colon
- c. Marginal artery is weakest at hepatic flexure
- d. Lymphatic drainage is via superior and inferior mesenteric lymph nodes
- e. ?

26. Where does the appendix lie in health?

- a. Retroileal
- b. ?
- c. ?
- d. ?
- e. ?

27. Regarding the kidneys:

- a. The hilum of the left kidney is just below that of the right
- b. The hilum faces medially and somewhat posteriorly
- c. The long axis is parallel with the lateral border of psoas
- d. The perinephric fat is surrounded by the renal fascia
- e. The renal artery lies in front of the renal vein

28. Concerning the colon:

- a. Appendices epiploicae are most frequent on the ascending colon
- b. The transverse colon is normally shorter than the descending colon
- c. The blood supply includes the superior mesenteric artery
- d. Parasympathetic supply does not include the vagi
- e. None of the above

29. Regarding the left kidney

- a. Anterior relations include the spleen
- b. Posteriorly lies the costodiaphragmatic recess
- c. The suprarenal gland lies within the renal fascia
- d. The lateral femoral cutaneous nerve lies posteriorly
- e. The median arcuate ligament lies posteriorly

30. The pelvic floor

- a. Consists of ischiococcygeus, iliococcygeus and pubococcygeus
- b. Muscles have significant insertion into the sacrum
- c. Creates a gutter that slopes downwards and backwards
- d. Has the anococcygeal raphe a superficial part
- e. None of the above

31. Regarding the inguinal canal

- a. It has a roof formed by lower edges of internal oblique and transverses muscles
- b. The ilioinguinal nerve enters the canal through the deep ring
- c. Its posterior wall is formed by the external oblique aponeurosis
- d. The conjoint tendon lies anterior to the superficial inguinal ring
- e. The superior epigastric artery crosses the posterior wall medial to the deep inguinal ring

32. The liver

- a. Is divided into superior and inferior lobes by the falciform ligament
- b. Has a bare area inferiorly
- c. Receives blood from portal and hepatic veins
- d. Has a caudate lobe that lies within the lesser sac
- e. Takes sympathetic nerve supply from paravertebral ganglia

33. The abdominal aorta

- a. Bifurcates into the common iliac vessels on the body of L4
- b. Gives rise to the testicular/ovarian artery above the renal artery
- c. Arises from the thoracic aorta on passing anterior to the median arcuate ligament
- d. Gives rise to the renal arteries at the level of T12
- e. Lies to the right side of the inferior vena cava

34. The branches of the lumbar plexus includes:

- a. The iliohypogastric and ilioinguinal which provide motor innervation to the internal and external oblique muscles
- b. The genitofemoral nerve which is derived from L3 and L4
- c. The femoral nerve which supplies the ileus
- d. The obturator nerve which is derived from L2,3 and 4 posterior divisions
- e. The lateral femoral cutaneous nerve which supplies sensory and motor innervation to the lateral thigh

35. Regarding the ureter the right is

- a. Narrowed at pelviureteric junction
- b. Is 10cm long
- c. Lower end of ureter is supplied by the ureteric branch of the renal artery
- d. It is endodermal in origin
- e. It is related to the second part of the duodenum on the right

36. The pancreas

- a. Lies at the level of the L1 vertebra
- b. Body slopes downwards across the aorta
- c. Receives its blood supply from the splenic artery
- d. Is about 20cm long
- e. Develops from three separate buds

37. Regarding the vessels of the pelvis

- a. The inferior and superior gluteal arteries are branches of the posterior division of the internal iliac artery
- b. The iliolumbar artery passes in front of the obturator nerve
- c. The uterine artery passes above the ureter
- d. The inferior vesical artery always supplies the lower end of the ureter
- e. The obturator artery lies above the obturator nerve on the side wall of the pelvis

38. The pelvic floor

- a. Muscles include obturator internus
- b. Slopes down and forwards
- c. Is supplied by S2, S3 and S4
- d. Is relaxed during quiet respiration
- e. Muscle iliococcygeus arises from the ilium

39. Regarding the stomach

- a. The cardia is at the level of T8
- b. The stomach is supplied by branches from the celiac trunk
- c. The fundus is supplied by gastroepiploic vessels
- d. The pyloric opening lies to the right of midline at T12
- e. It has an outer longitudinal muscle layer and an inner oblique layer

40. Which lymph nodes drain the lower anal canal?

- a. Superficial inguinal
- b. External iliac
- c. Deep inguinal
- d. Para-aortic
- e. Internal iliac

41. Superior pancreaticoduodenal vein drains into

- a. Left gastric vein
- b. Portal vein
- c. Splenic vein
- d. Superior mesenteric vein
- e. IVC

42. All the following are veins which drain the stomach EXCEPT:

- a. Gastroepiploic
- b. Gastroduodenal
- c. Right gastric
- d. Left gastric
- e. Short gastric

43. Which is not true of the stomach?

- a. Completely invested by peritoneum
- b. Cardia situated at T12
- c. Pyloric opening at L1
- d. Aorta to the left of lesser curve
- e. Supplied by branches of the celiac trunk

44. Which does not pass through the transpyloric plane?

- a. Splenic vein
- b. Tips of the 9th costal cartilages
- c. Lower border of L1
- d. Spleen
- e. Superior mesenteric artery

45. Appendix

- a. Usually lies retrocaecal in health
- b. Drains to inguinal nodes
- c. Has no mesentery
- d. Has a tip constant in relation to the caecum
- e. Opens into the caecum 2cm below the ileocaecal valve

46. Regarding the abdominal aorta

- a. Renal arteries originate at T12
- b. Splenic vein crosses the aorta just below superior mesenteric artery origin
- c. Surface marking from a point just above the transpyloric plane to a point just to the left of the umbilicus
- d. ?
- e. ?

47. Regarding the testicular blood supply

- a. Division of the testicular artery results in testicular infarction
- b. Testicular artery has numerous anastomoses with the cremasteric artery
- c. Pampiniform plexus is a superficial plexus surrounding the testicular artery
- d. ?
- e. ?

48. Which of the following regarding the appendix is FALSE?

- a. It has a base constant in relation to the caecum
- b. It has its own mesentery
- c. It is formed by teneae coli convergence
- d. Varies in length between 2 and 25 cm
- e. It always lies retro-ilial in presence of disease

49. The ureters

- a. Widest in diameter at the PUJ
- b. Innervated by sympathetic nerves T12-L1
- c. Lie lateral to the tips of the lumbar transverse processes
- d. Depend on innervation from the pelvis for peristalsis
- e. None of the above are true

50. The ureters

- a. Cross the gonadal vessels
- b. Cross over the vas deferens
- c. Are crossed by the genitofemoral nerve
- d. Pass under the cover of the psoas muscle
- e. Lie lateral to the lumbar transverse processes

Answers Abdomen

- | | |
|-------|--------|
| 2. b | 25. d |
| 3. c | 26. a |
| 4. a | 27. c |
| 5. b | 28. c |
| 6. c | 29. b |
| 7. a | 30. ? |
| 8. d | 31. a |
| 9. b | 32. d |
| 10. b | 33. a |
| 11. b | 34. c? |
| 12. b | 35. a |
| 13. d | 36. c |
| 14. a | 37. c |
| 15. c | 38. b |
| 16. e | 39. b |
| 17. a | 40. a |
| 18. b | 41. b |
| 19. a | 42. b |
| 20. e | 43. b |
| 21. e | 44. d |
| 22. d | 45. e |
| 23. e | 46. c |
| 24. a | 47. c |
| | 48. e |
| | 49. e |
| | 50. ? |