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Anatomy Department
2nd year MBBS abdomen & pelvis revision stage
MCQS

1. Which of the following vessels drains into the portal system of veins?
 - a) Median sacral vein
 - b) Middle rectal vein
 - c) Inferior rectal vein
 - d) Superior rectal vein
 - e) Iliolumbar vein
2. An obstetrician injects local anesthetic to block sensation from the perineum during the third stage of labor. After verifying a bony landmark transvaginally (through the vagina), she blocks the pudendal nerve. Which of the following bony landmarks should she use to locate the pudendal nerve?
 - a) Ischial spine
 - b) External os of cervix
 - c) Sacral promontory
 - d) Pubic symphysis
 - e) Tip of the coccyx
3. Which of the following structure lie in the transpyloric plane:
 - a) Fundus of gallbladder
 - b) Fundus of stomach
 - c) Liver
 - d) Spleen
 - e) Transverse colon
4. A young female patient presented with severe pain in the abdomen. The pain started around the umbilicus and then shifted to right iliac fossa after some hours. Rebound tenderness was present. Which structure is most likely involved?
 - a) Appendix
 - b) Ascending colon
 - c) Cecum
 - d) Right ovary
 - e) Small intestine
5. Which of the following Incisions is used for Cholecystectomy?
 - a) Right Kocher's
 - b) Midline
 - c) Right paramedian
 - d) Transverse
 - e) Rooftop

6. Which of the following structures is present in the Gastrosplenic ligament?
- Left gastric artery
 - Left gastroepiploic artery
 - Short gastric vessels
 - Splenic artery
 - Tail of pancreas
7. A 50 years old male patient presented in the hospital with severe pain in the epigastrium and black stools. Endoscopy revealed an ulcer in the first part of duodenum which had eroded an artery. Which of the following arteries has been involved?
- Gastroduodenal
 - Left gastric
 - Right gastric
 - Splenic
 - Superior pancreaticoduodenal
8. A 40 years old male patient presented in the hospital with lower abdominal pain, difficult urination and blood in the urine. Plain X-Ray abdomen revealed a 10 mm stone in the urinary bladder. Bladder pain is referred to which of the following areas?
- Back of thighs
 - Flanks
 - Lower buttock
 - Suprapubic region
 - Umbilical region
9. In a roadside accident a patient sustained trauma to the back involving the fracture of right 12th rib and severe damage to the underlying right kidney. Which of other following structures is likely to be damaged?
- Duodenum
 - Pancreas
 - Portal vein
 - Splenic artery
 - Stomach
10. A 29-year-old man injures his perineum jumping over seats in the grandstand following a baseball game. Urine leaking from the ruptured spongy urethra is most likely to collect in which of the following spaces?
- Inguinal canal
 - Between Camper's and Colle's fascia
 - Femoral triangle
 - Ischioanal fossa
 - Rectovesical pouch
11. A 59-year-old woman presents in the emergency department with severe abdominal pain in the lower quadrants, positive rebound tenderness, fever, and elevated WBC. She also reported that she recently had a painful colonoscopy with some post-procedural bleeding. Exploratory laparoscopy found peritonitis with a perforated rectum. Where would the abscess from the peritonitis MOST LIKELY accumulate?

- a) Infraperitoneal space
 - b) Rectouterine pouch
 - c) Rectovesical pouch
 - d) Vesiculo-uterine space
 - e) Retrorectal pouch
12. During a radical hysterectomy procedure, the surgeon must expose the broad ligament to ligate the uterine arteries that travel within the transverse cervical ligament. Which of the following structures can MOST LIKELY be injured during this procedure?
- a) Uterosacral ligament
 - b) Suspensory ligament of the ovary
 - c) Ureters
 - d) Sigmoid colon
 - e) Bladder
13. A 55-year-old woman presents in your clinic with procidontia, or appearance of her cervix at the vulva. Based on your knowledge of the structures that provide significant support for the uterus and cervix, which one of these must be weakened or compromised in this case?
- a) Round ligament of the uterus (ligamentum teres uteri)
 - b) Mesosalpinx
 - c) Mesometrium
 - d) Proper ovarian ligament
 - e) Cardinal ligament
14. A 20-year old woman, 7 weeks after giving vaginal birth to a healthy, 4.25 kg girl, complains that she still has brownish vaginal flow and it has a bad odor. She has pain during defecation. What is your suspicion?
- a) Due to the big size of the baby, the tissues of the vagina heal slower and there is still occasional bleeding a few weeks after childbirth. The color and odor of the fluid is that of partially disintegrated blood.
 - b) She developed hemorrhoids during pregnancy, and they bleed and cause pain during defecation.
 - c) There is a fistula between vagina and anal canal due to a tear in the perineum during childbirth.
 - d) She has developed fungal infection during childbirth, and that causes the bad odor
 - e) She has developed a vaginal adenocarcinoma secondary to the trauma
15. A 32 year old woman was brought to the clinic, by her husband, with complaints of severe stabbing pain in right lower abdomen and vaginal bleeding. She also had intermittent pain in her right shoulder, particularly while lying down. On questioning it is learnt that she had missed her period last month. She had also fainted once before being brought to the hospital and felt dizzy. Her blood pressure was found to be lower than the normal limits. Based on the clinical scenario mentioned above the MOST LIKELY diagnosis you would arrive at would be
- a) Appendicitis
 - b) Ovarian tumour

- c) Normal menstruation
- d) ~~Rupture of tubal pregnancy (fallopian tube rupture)~~
- e) Ovarian pregnancy

16. 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

17. Which is the most common site for the appendix found at appendicectomy?

- a) retro-ileal
- b) retro-caecal
- c) pelvic
- d) anterior to terminal ileum
- e) below terminal ileum overlying psoas

18. 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

19. 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

20 The ejaculatory ducts:

- a) are formed by the union of the prostatic ducts and the ducts of the seminal vesicle
- b) lie on the superior surface of the bladder
- c) open into the membranous urethra
- d) contract with parasympathetic stimulation
- e) have none of the above properties

21) Regarding abdominal vascular anatomy, all of the following are true EXCEPT:

- a) the left renal vein lies under the superior mesenteric artery
- b) the appendix is supplied by the ileo colic branch of the superior mesenteric artery

- c) the left gastro epiploic artery is a branch of the splenic artery
 - d) the portal vein lies posterior to the pylorus
 - e) the duodenum receives no supply from the superior mesenteric artery
- 22) With regard to the ureter, which is NOT true?
- a) it is narrowed at its halfway mark
 - b) it crosses the genitofemoral nerve under cover of peritoneum
 - c) the upper part of the right ureter lies behind the duodenum
 - d) it lies just lateral to the tips of the transverse processes of L3-5
 - e) it is adherent to the peritoneum of the posterior abdominal wall
- 23) With regard to the female pelvis, which is NOT true?
- a) the cervix is separated from the rectum by the Pouch of Douglas
 - b) the cervix is separated from the bladder by the vesicouterine pouch
 - c) the ureter passes 1-2cm lateral to the cervix
 - d) the ureter passes under both the broad ligament and the uterine artery
 - e) lymph drainage from the body of the uterus includes the inguinal nodes
- 24) 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
- 25) 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
- 26) 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
- 27) 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 arterles 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

28) 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

29) 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

30) 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

31) Which of the following forms the posterior wall of the inguinal canal?

- a) conjoint tendon
- b) internal oblique muscle
- c) transversusabdominus muscle
- d) lacunar ligament
- e) external oblique muscle

32) Fibres of transversusabdominus 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

33) A patient presents with a deep stab wound high up in the costovertebral angle beneath the 12 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 3 part of the duodenum
- d) puncture of the 4 part of the duodenum
- e) pneumothorax of the left lung

34) 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

35) 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

36) All of the following are true regarding the pancreas EXCEPT:

- a) the neck and body of the pancreas lie anterior to the first lumbar vertebrae
- b) the neck of the pancreas lies over the right and left renal veins at the level of L2 vertebra
- c) the splenic artery supplies all of the pancreas
- d) parasympathetic vagal fibres stimulate the exocrine secretion from the gland
- e) the uncinata process drains via an accessory pancreatic duct into the duodenum

37) The spleen:

- a) weights 15 ounces
- b) lies between the 8 and 11 ribs
- c) has an identifiable notch on its posterior border
- d) is supplied with parasympathetic fibres from coeliac plexus
- e) lymphatic drainage is to coeliac nodes

38) Regarding the kidneys:

- a) the right kidney lies at a lower level to the left kidney
- b) they lie inferior to the pleura
- c) the hilum of the left kidney is separated from the peritoneum by the duodenum
- d) the renal fascia encloses the kidney and suprarenal gland within the same sheath
- e) the renal pelvis is lined with columnar epithelium

39) Regarding the ureters, which is INCORRECT?

- a) 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
- b) they exhibit peristaltic activity when stimulated
- c) they are lined by transitional epithelium with a thick muscularis mucosae
- d) they are supplied with sympathetic fibres from T11-L2
- e) they are crossed superficially by the gonadal vessels

40) Regarding the inguinal canal:

- a) the deep inguinal ring lies 1cm above and at the junction of the lateral third and medial two thirds of the inguinal ligament
- b) the deep inguinal ring is formed by an opening in the transversalis fascia
- c) an indirect inguinal hernia bulges into the inguinal triangle, posterior to the canal and medial to the inferior epigastric artery
- d) contains the spermatic cord that has two fascial layers/coverings and eight contents
- e) none of the above

41) Which structure does not enter the inguinal canal through the deep inguinal ring?

- a) testicular artery
- b) vas deferens
- c) ilioinguinal nerve
- d) genital branch of genitofemoral nerve
- e) artery to the vas deferens

42) Regarding potential spaces in the abdomen:

- a) the entrance to the lesser sac is inferiorly via the transverse mesocolon foramen
- b) the right hepatorenal pouch is the lowest lying region of the peritoneal cavity in the supine position (excluding pelvis)
- c) the peritoneal cavity is divided into supracolic and infracolic by the epiploic foramen
- d) the root of the mesentery of the small intestine is a small 2cm area at the duodenojejunal junction
- e) right paracolic gutter is present at T-12 level

43) The forgut:

- a) includes from the abdominal aorta to the end of the duodenum
- b) is supplied by branches of the superior mesenteric artery
- c) venous drainage includes the blood from the lower third of the oesophagus

- d) drains entirely into the splenic vein
- e) one of the above

44) The midgut:

- a) is from the opening of the bile duct into the duodenum to the ileocaecal junction
- b) all venous drainage is to the superior mesenteric vein
- c) superior mesenteric artery lies on the right side of the superior mesenteric vein
- d) superior mesenteric artery originates off the aorta at L3

45) The inferior mesenteric artery arises:

- a) at L3
- b) behind the inferior border of the third part of the duodenum
- c) at the level of the umbilicus
- d) 3-4cm above the aortic bifurcation
- e) all of the above

46) The spleen:

- a) is a retroperitoneal organ
- b) lies along the axis of the left 10 rib
- c) lymphatics drain to the superior mesenteric paraaortic nodes
- d) pain fibres accompany sympathetic fibres and pain may radiate in the distribution of thoracic dermatomes 6-10
- e) lies along the axis of the left 5th rib

47) Which nerve passes through psoas muscle and emerges anteriorly to run down the front of the muscle?

- a) ilioinguinal
- b) iliohypogastric
- c) genitofemoral
- d) lateral cutaneous nerve of the thigh
- e) intermediate cutaneous nerve of thigh

48) Regarding the anterior abdominal wall:

- a) the arcuate lines lie midway between the symphysis pubis and umbilicus
- b) between the umbilicus and the lateral margin transversus aponeurosis lies posterior the rectus
- c) the inferior epigastric artery originates from the internal iliac
- d) it gives support to the liver and spleen
- e) the ilioinguinal nerve passes through the deep inguinal ring

49) Pelvic joints and ligaments:

- a) the sacroiliac joint is a fibrous joint between the auricular surfaces of the ilium and sacrum

- b) the wedge shape of the sacrum contributes to its stability
- c) ~~the coccygeous muscle lies on the pelvic surface of the sacrotuberous ligament~~
- d) the sacrotuberous and sacrospinous ligaments enclose the greater sciatic foramen
- e) the iliolumbar ligament is V-shaped with the apex attached to L5

50) Nerves of pelvis, branches of sacral plexus include all EXCEPT:

- a) nerves to piriformis
- b) pelvis splanchnic nerve
- c) obturator nerve
- d) pudendal nerve
- e) posterior femoral cutaneous nerve