

ANATOMY 2

ABDOMEN AND PELVIS

Each of the questions that follows consists of an incomplete statement or question followed by 5 suggested completions or answers. For each question mark the ONE completion or answer which is most appropriate.

1. The first part of the duodenum:
 - A) runs forwards and to the right
 - B) has prominent circular folds in its first centimetres
 - C) has no greater omentum attached to its posterior surface
 - D) has the right gastropancreatic fold attached to its posterior surface
 - E) received alkaline chyme from the stomach

2. The superior mesenteric artery :
 - A) arises from the aorta at the level of the second lumbar vertebra
 - B) passes between the right renal behind and the portal vein in front
 - C) gives rise to the superior pancreaticoduodenal artery
 - D) has jejunal and ileal branches which arise from its left side
 - E) is the artery of the hindgut

3. The large intestine:
 - A) has taeniae which are best marked on the transverse colon and descending colon
 - B) has haustra which are constant in position
 - C) is usually associated with a long marginal artery
 - D) drains all its blood into the portal venous system apart from a little which drains via the portosystemic anastomoses of the rectum
 - E) has a lumen which is narrowest at the right colic flexure

4. The spleen:
 - A) develops in the dorsal mesogastrium
 - B) is deep to the left ninth, tenth and eleventh costal cartilage
 - C) has a notched inferior border
 - D) has a colic surface at its posterior end
 - E) has some striated muscle in its capsule

5. The inferior mesenteric artery:
 - A) becomes the inferior rectal artery
 - B) arises from the aorta at the level of the second lumbar vertebra
 - C) runs downwards and to the right
 - D) accompanies the inferior mesenteric vein throughout its course
 - E) gives off its sigmoid branches before crossing the pelvic brim

6. The ventral ramus (anterior primary division) of the first lumbar nerve:
- A) gives off a collateral branch, the iliohypogastric nerve
 - B) has variable connections with the subcostal and second lumbar nerves
 - C) gives off the ilioinguinal nerve which has a lateral cutaneous nerve
 - D) gives off the iliohypogastric nerve which supplies the skin below the pubis
 - E) is sometimes called nervus furcalis
7. The obturator artery:
- A) is above the obturator nerve
 - B) is below the obturator vein
 - C) near its origin is crossed by the ureter
 - D) arises from the inferior epigastric artery in 50% of instances
 - E) has a pubic branch which passes through the obturator canal
8. The pudendal nerve :
- A) seldom gives rise to the inferior rectal nerve
 - B) is lateral to the internal pudendal artery behind the ischial spine
 - C) supplies mucosa of the anal canal proximal to the pectinate line
 - D) crosses the front of the ischial spine
 - E) contains postganglionic sympathetic fibres
9. The pelvic part of the sympathetic trunk:
- A) terminates in the ganglion impar
 - B) lies lateral to the upper three pelvic sacral foramina
 - C) gives off the pelvic splanchnic nerves
 - D) receives white rami communicantes
 - E) has ganglia which are each usually connected to about three spinal nerves by rami communicantes
10. The ureter:
- A) has an outer longitudinal muscle layer
 - B) is lined by simple cuboidal epithelium
 - C) is in part extraperitoneal
 - D) has a deficient arterial anastomosis at the junction of its lower and middle thirds in 10-15% of people
 - E) delivers spurts of urine to the bladder about once every fifteen minutes
11. The female urethra:
- A) is about 6cm long
 - B) is lined by stratified squamous epithelium throughout
 - C) has no glands
 - D) can be dilated to about 1cm without damage
 - E) contains smooth muscle which is almost entirely circular

12. The ductus deferens:
- A) crosses the medial side of the ureter
 - B) ascends on the lateral side of the epididymis
 - C) hooks around the medial side of the inferior epigastric artery
 - D) is lateral to the obturator vessels
 - E) runs downwards and medially lateral to the seminal vesicles
13. The round ligament of the uterus:
- A) terminate the labium minus
 - B) is derived from the mesonephric duct
 - C) is accompanied by a branch of the ovarian artery
 - D) is attached above and behind the uterine part of the uterine tube
 - E) contains smooth muscle which is continuous with the myometrium
14. The vagina:
- A) has the cardinal ligament attached to its lateral wall
 - B) has longer anterior wall
 - C) has the urethra fused with the anterior wall of its upper third
 - D) is supplied solely by the vaginal artery
 - E) is entirely below the pelvic diaphragm
15. The scrotum:
- A) contains the dartos which is continuous with the deep perineal fascia
 - B) is supplied in its anterior part by the internal pudendal artery
 - C) sends lymph to the superficial inguinal lymph nodes
 - D) is supplied in its posterior part by the external pudendal arteries
 - E) has no septum
16. The left common iliac artery:
- A) begins on the left side of the body of the fifth lumbar vertebra
 - B) helps to supply the left ureter
 - C) is longer than the right
 - D) is behind the left sympathetic trunk
 - E) has only a few valves
17. The median articular ligament:
- A) is attached to the transverse process of the first lumbar vertebra
 - B) arches over the descending aorta
 - C) arches over the sympathetic trunk
 - D) provides a direct attachment for the central tendon of the diaphragm
 - E) arches over the subcostal nerve
18. Directly in front of the right kidney lies the:
- A) second part of the duodenum
 - B) portal vein
 - C) bile duct
 - D) splenic flexure of the colon
 - E) inferior vena cava

19. Attached to the duodenojejunal flexure is the:
- hepatoduodenal ligament
 - greater omentum
 - falciform ligament
 - suspensory muscle of the duodenum
 - lesser omentum
20. The cisterna chyli:
- receives lymph from the thoracic duct
 - lies to the left of the abdominal aorta
 - receives lymph from the lower limbs
 - lies under cover of the left crus of the diaphragm
 - passes through the caval opening in the diaphragm
21. The inferior vena cava :
- begins in the intertubercular plane
 - ascends behind the right renal artery
 - is separated from the liver by peritonium
 - pierces the muscular part of the head of the diaphragm
 - ascends in front of the head of the pancreas
22. Attached to the liver is the :
- ligamentum venosum, the obliterated sinus venosus
 - ligamentum venosum, the obliterated left umbilical vein
 - falciform ligament which has a posterior layer continuous with the coronary ligament
 - ligamentum teres which passes back in a fissure to the left branch of the portal vein
 - greater omentum
23. The bile duct:
- is accompanied by the gastroduodenal artery behind the first part of the duodenum
 - is formed by the union of the right and left hepatic ducts
 - is 10-15 cm long
 - is to the left of the common hepatic artery
 - has a fairly muscular wall throughout its length
24. Clinically useful surface projections in the trunk include the:
- supracristal plane at the level of the fifth lumbar vertebra
 - transtubercular plane at the level of the fourth lumbar vertebra
 - mid-inguinal point, the midpoint of the inguinal ligament
 - deep inguinal ring 4 cm above the mid-inguinal point
 - transpyloric plane opposite the tip of the spine of the twelfth thoracic vertebra
25. The spermatic cord:
- contains lymphatic vessels from the epididymis
 - is surrounded by the tunica vaginalis
 - contains lymphatics from the scrotum
 - contains the femoral branch of the genitofemoral nerve
 - has a fascial investment which includes a layer derived from transversus thoracis

26. The ovary:
- A) is attached to the anterior (inferior) layer of the broad ligament
 - B) receives a branch of the abdominal aorta
 - C) has the ovarian ligament attached to its lateral pole
 - D) is covered by peritoneum in the adult
 - E) increases in size in the elderly
27. Obturator internus:
- A) leaves the pelvis through the greater sciatic foramen
 - B) is a medial rotator of the hip joint
 - C) forms the lateral wall of the ischiorectal fossa
 - D) is innervated by a branch of the lumbar plexus
 - E) has levator ani attached to its upper border
28. The stomach;
- A) lies posterior to the right lobe of the liver
 - B) is anterior to the spleen
 - C) is separated from the liver by the lesser sac
 - D) has splenic artery branches along its lesser curve
 - E) has peritoneum on the whole of its posterior surface
29. The right kidney :
- A) extends upwards as far as the tenth rib
 - B) has a lower pole in contact with the right lobe of the liver
 - C) has a hilus at the level of the spine of the tenth thoracic vertebra
 - D) is separated from the descending part of the duodenum by peritoneum
 - E) has a posterior surface which is devoid of peritoneum
30. The processus vaginalis:
- A) is absent in females
 - B) lies external to the internal spermatic fascia
 - C) forms a covering of the adult ductus deferens
 - D) covers the testes but no part of the epididymis
 - E) is a sleeve continuous with the peritoneum

Answering Instructions For This Section

The questions that follow consist of an assertion or statement (S) and a reason (R). For each question select the most appropriate response as follows:

Mark (A) if S is correct, R is correct and is a valid explanation of S,

Mark (B) if S is correct, R correct but is NOT a valid explanation of S,

Mark (C) if S is correct but R is incorrect,

Mark (D) if S is incorrect but R is correct,

Mark (E) if S is incorrect and R is incorrect.

31.

Urine from the rupture of the spongy part of the male urethra does not track to the anal region

BECAUSE

the membranous layer of the superficial fascia is attached to the posterior border of the perineal membrane

32.

Carcinoma of the penis tends to metastasize first to retroperitoneal para-aortic lymph nodes

BECAUSE

the developing male gonads initially lie high up on the dorsal abdominal wall

33.

Acute appendicitis may cause peri-umbilical pain

BECAUSE

autonomic afferent fibres from the vermiform appendix enter the eighth thoracic segment of the spinal cord

34.

The superior part of the duodenum is supplied by branches of the hepatic and gastroduodenal arteries

BECAUSE

the rostral part of the small intestine develops from the abdominal foregut

35.

The right lumbar arteries are longer than the left

BECAUSE

the abdominal aorta lies to the left of the median plane

36.

Ligation of the common iliac artery results in a collateral circulation through the anastomosis between the inferior and superior epigastric arteries

BECAUSE

the external and internal iliac arteries are the terminal branches of the common iliac artery

37.

Scrotal skin wrinkles in cold weather

BECAUSE

dartos is smooth muscle

38.

The left ureter is readily located at the the pelvic brim

BECAUSE

it lies in the anterior wall of the intersigmoid peritoneal recess

39.

Bilateral lumbar sympathectomy in the male is seldom followed by loss of ejaculation

BECAUSE

the third lumbar ganglion is usually preserved on one side

40.

At laparotomy division of the left triangular ligament will improve access to the oesophageal hiatus

BECAUSE

the abdominal part of the oesophagus lies behind the left lobe of the liver

Answering Instructions For This Section

Incomplete statements or questions are followed by 4 suggested answers or completions of which ONE or MORE THAN ONE is correct. Answer each true or false.

41. The pancreas:

- 1) Lies in front of the origin of the inferior mesenteric artery
- 2) Is largely retroperitoneal
- 3) Frequently has an accessory duct
- 4) Has its tail in the gastrophrenic ligament

42. The splenic vein directly or indirectly drains the :

- 1) Right suprarenal gland
- 2) Upper rectum
- 3) Pancreas
- 4) Jejunum

43. The portal vein:

- 1) is formed behind the neck of the pancreas
- 2) ascends ventral to the hepatic artery
- 3) may receive veins from the bladder
- 4) is dorsal to the epiploic foramen

44. The deep inguinal ring:

- 1) is lateral to the inferior epigastric artery
- 2) is directly above the midpoint of the inguinal ligament
- 3) is an opening in the transversalis fascia
- 4) transmits the ilioinguinal nerve

45. The right suprarenal gland:
- 1) is in contact with the inferior vena cava
 - 2) lies against the diaphragm
 - 3) is readily separated from the right kidney
 - 4) lies in the dorsal wall of the lesser sac
46. External oblique:
- 1) is attached to the lower six ribs
 - 2) aponeurosis contributes a bit to the lower most part of the anterior sheath of the rectus abdominis
 - 3) usually has a free posterior border
 - 4) forms one side of the lumbar triangle
47. Rectus abdominus:
- 1) is attached to the inner surface of the fifth, sixth and seventh ribs
 - 2) posterior sheath is pierced near the linea alba by the ventral rami (anterior primary divisions) of the 7th to 12th thoracic nerves
 - 3) sheath is formed largely by the aponeurosis of internal oblique and transversus abdominis
 - 4) is wider above than below
48. The inguinal canal:
- 1) is a horizontal passage about 4 cm long
 - 2) contains the iliohypogastric nerve
 - 3) has its anterior wall formed only by the aponeurosis of external oblique
 - 4) contains the ilioinguinal nerve
49. The inferior epigastric artery:
- 1) arises from the internal iliac artery near the midinguinal point
 - 2) in the male has the ductus deferens hooked round its lateral side
 - 3) ascends posterior to the arcuate line of the sheath of rectus abdominis
 - 4) gives rise to the cremasteric artery
50. The peritoneum lining the anterior wall of the lesser sac:
- 1) clothes the posterior surface of the stomach
 - 2) clothes the posterior surface of the first 1 or 2 cms of the duodenum
 - 3) forms the posterior layer of the lesser omentum
 - 4) forms the most posterior of the two anterior layers of the greater omentum
51. The hepatorenal (right subheptic) pouch is bounded:
- 1) in front by the visceral surface of the right lobe of the liver
 - 2) above the upper layer of the coronary ligament
 - 3) to the right by the epiploic foramen and the supracolic part of the duodenum
 - 4) behind the right kidney
52. In the right iliac fossa the:
- 1) vascular fold of the caecum forms the superior ileocaecal recess
 - 2) anterior caecal vessels lie in the vascular fold of the caecum
 - 3) ileocaecal fold forms the inferior ileocaecal recess
 - 4) ileocaecal fold is attached to the base of the appendix

53. The dorsal mesogastrium gives rise to the :
- 1) gastrophrenic ligament
 - 2) lesser omentum
 - 3) lienorenal ligament
 - 4) gastrosplenic ligament
54. The stomach has:
- 1) a body which usually contains about 50 ml of air
 - 2) a posterior surface which is entirely covered by peritonium
 - 3) a pyloric part which is lined by mucosa containing pyloric glands
 - 4) rugae which contain a core of submucosa
55. In the upper abdomen :
- 1) the prepyloric vein marks the beginning of the duodenum
 - 2) there are many anastomoses between gastric and duodenal arteries
 - 3) the posterior trunk of the vagus runs along the right gastric artery to reach the coeliac plexus
 - 4) there are usually 5 or 6 short gastric arteries
56. The small intestine:
- 1) is about 9 metres long
 - 2) has more jejunum than ileum
 - 3) has its duodenojejunal flexure located on the left side of the body of the first lumbar vertebra
 - 4) is largely retroperitoneal for its initial 30 cm
57. The ileum has :
- 1) more arcades of vessels in its mesentery than the jejunum
 - 2) more fat in the lunettes of its mesentery than the jejunum
 - 3) shorter vasa recta than the jejunum
 - 4) is wider lumen than the jejunum
58. The duodenum :
- 1) is derived solely from the abdominal foregut
 - 2) is about 25 cm long
 - 3) has the whole of its posterior aspect fixed to the posterior abdominal wall
 - 4) lies partly in front of the right kidney
59. The second part of the duodenum:
- 1) is partly in the supracolic compartment and partly in the infracolic compartment
 - 2) descends in front of the right renal vessels
 - 3) descends behind the gallbladder and transverse colon
 - 4) has a lesser duodenal papilla about 2 cm proximal to a greater duodenal papilla
60. The root of the mesentery of the small intestine crosses the:
- 1) third part of the duodenum
 - 2) right gonadal vessels
 - 3) right ureter
 - 4) abdominal aorta

61. The mesentery:
- 1) is 15 cm long at its attachment to the posterior abdominal wall
 - 2) is directed obliquely downwards to the level of the right sacro-iliac joint
 - 3) measured from the root to the intestine, may be about 18 cm wide in its central part
 - 4) contains branches of the ileocolic artery
62. The caecum:
- 1) lies in front of the iliopsoas
 - 2) has the appendix attached to its anteromedial wall
 - 3) is usually surrounded by peritoneum
 - 4) lacks appendices epiploicae
63. The appendix :
- 1) is on average about 9 cm long
 - 2) is commonly pelvic in position
 - 3) when pelvic hangs in front of the external iliac vessels
 - 4) is supplied mainly via the anterior caecal artery
64. The liver:
- 1) is attached to the diaphragm by the coronary ligament
 - 2) has a visceral surface which is directed downwards, forwards and to the left
 - 3) has a thin fibrous capsule in addition to its peritoneal covering
 - 4) weighs on average about 2400 to 2800 g.
65. Posterior relations of the pancreas include the;
- 1) right suprarenal gland
 - 2) diaphragm
 - 3) left kidney
 - 4) splenic vein
66. Posterior relations of the right kidney include the right:
- 1) eleventh rib
 - 2) inferior phrenic artery
 - 3) subcostal nerve
 - 4) ilioinguinal nerve
67. Peritoneum separates the anterior surface of the left kidney from the:
- 1) stomach
 - 2) body of pancreas
 - 3) spleen
 - 4) small intestine
68. Blood may drain into the left renal vein from the:
- 1) left gonad
 - 2) body wall
 - 3) left suprarenal gland
 - 4) diaphragm

69. The abdominal aorta:
- 1) is about 12.5 cm long
 - 2) is for its whole length in the median plane
 - 3) divides at the level of the L4
 - 4) has lumbar branches arising from its lateral aspect
70. Passing behind the medial arcuate is the :
- 1) subcostal nerve
 - 2) ascending lumbar vein
 - 3) lowest splanchnic nerve
 - 4) sympathetic trunk
71. The coeliac plexus :
- 1) is the largest of the prevertebral plexus
 - 2) lies at the origins of the coeliac, superior mesenteric and renal arteries
 - 3) has branches which form peri-arterial plexuses
 - 4) contains parasympathetic fibres
72. Retroperitoneal structures behind the lesser sac include the:
- 1) left ureter
 - 2) diaphragm
 - 3) abdominal aorta
 - 4) right suprarenal gland
73. The lesser omentum has:
- 1) a border attached to the foregut
 - 2) an L-shaped border attached to the liver
 - 3) a lower right, free border
 - 4) a short upper left border attached to the diaphragm
74. The portal vein:
- 1) is about 8 cm long
 - 2) has a left branch which is longer than a right branch
 - 3) has a left branch to which the ligamentum teres is attached anteriorly
 - 4) has a left branch to which the ligamentum venosum is attached posteriorly
75. The duodenum:
- 1) is the widest part of the small intestine
 - 2) has a layer of circular muscle which is thickened proximally to form the pyloric sphincter
 - 3) is supplied solely by branches of the coeliac axis
 - 4) has a layer of longitudinal muscle which is continuous with that of the stomach
76. The superior recess of the lesser sac lies :
- 1) behind the quadrate lobe of the liver
 - 2) in front of the diaphragm
 - 3) above the inferior recess
 - 4) to the right of the inferior vena cava

77. In a correctly articulated (human) skeleton the:
- 1) anterior superior iliac spines and pubic tubercles are in the same frontal plane
 - 2) tip of the coccyx and lower margin of the symphysis pubis are in the same horizontal plane
 - 3) pelvic surface of the sacrum faces more downwards than forwards
 - 4) internal aspect of the body of the pubis faces more backwards than upwards
78. The sacroiliac joint:
- 1) is of the cartilaginous type
 - 2) often has supernumerary facets
 - 3) has a very strong accessory ligaments
 - 4) surfaces allow considerable movement in the male
79. The internal iliac artery :
- 1) usually crosses behind the ureter
 - 2) is separated from the front of the sacroiliac joint by the lumbo-sacral trunk
 - 3) in its upper part is medial to the external iliac vein
 - 4) in its lower part is lateral to the obturator nerve
80. The internal pudendal artery:
- 1) is larger in the female
 - 2) leaves the pelvic cavity between piriformis and coccygeus
 - 3) passes behind the ischial spine lateral to the nerve to obturator internus
 - 4) enters the perineum via the lesser sciatic foramen
81. The umbilical artery:
- 1) is usually the first visceral branch of the internal iliac artery
 - 2) usually gives rise to the artery of the ductus deferens
 - 3) usually gives rise to the superior vesical artery
 - 4) runs along the inferolateral surface of the bladder
82. The uterine artery:
- 1) is homologous to the testicular artery
 - 2) supplies the labium majus
 - 3) crosses above and in front of the ureter before ascending in the broad ligament
 - 4) sends a branch to the ligament of the ovary
83. The sacral plexus:
- 1) lies in front of piriformis
 - 2) receives the lumbosacral trunk
 - 3) supplies obturator externus
 - 4) is formed by the ventral rami of (anterior primary divisions) of L4, L5, S1, S2, S3, and S4 spinal nerves
84. The superficial inguinal lymph nodes receive lymph from the:
- 1) glans penis
 - 2) anal canal
 - 3) epididymis
 - 4) scrotum

85. The retropubic space:
- 1) is limited above by the puboprostatic ligaments
 - 2) contains very little fat
 - 3) is partially abdominal
 - 4) is U-shaped
86. The bladder has:
- 1) a complete submucosal coat
 - 2) a uvula
 - 3) a muscularis mucosae
 - 4) an interureteric ridge
87. The ureter:
- 1) is about 25 cm long
 - 2) crosses the medial side of the umbilical artery
 - 3) is crossed on its medial side by the vas deferens
 - 4) crosses below and behind the uterine artery
88. One ureter:
- 1) is usually more in front of the vagina than the other
 - 2) crosses in front of the left gonadal vessels
 - 3) lies behind the third part of the duodenum
 - 4) passes behind the sigmoid colon
89. The prostatic urethra:
- 1) is about 5 cm long
 - 2) is the most easily dilated part of the urethra
 - 3) has the openings of structures which developed from the mesonephric ducts
 - 4) has at the junction of its middle and upper thirds, the veru montanum
90. The membranous urethra is:
- 1) about 1 to 2 cm long
 - 2) situated about 4 cm behind the lower margin of the symphysis pubis
 - 3) the narrowest part of the male urethra except for the external opening
 - 4) the part of the urethra least liable to rupture
91. The left testis:
- 1) usually hangs lower than the right
 - 2) is usually lighter than the right
 - 3) contains between 250 and 400 lobules
 - 4) often has an appendix near its lower pole
92. The testis is:
- 1) a remnant of the mesonephros
 - 2) not completely surrounded by the tunica vaginalis
 - 3) supplied by the genitofemoral nerve
 - 4) drained by the deep inguinal lymph nodes

93. The epididymis:
- 1) overlaps the lateral surface of the testis
 - 2) has a duct which is about 6 metres long
 - 3) develops from the mesonephric duct
 - 4) is partially covered by the tunica vaginalis
94. At the base of the bladder the:
- 1) ductus deferens crosses the medial side of the ureter
 - 2) ampulla of the ductus deferens lies medial to the corresponding seminal vesicle
 - 3) ureter enters it in a plane posterior to that in which the common ejaculatory duct enters the prostate
 - 4) upper third of the rectum is closely related
95. The spermatic cord :
- 1) is usually longer on the left
 - 2) lies anterior to adductor longus below the superficial ring
 - 3) crosses in front of the deep external pudendal artery
 - 4) crosses behind the superficial external pudendal artery
96. Contents of the spermatic cord include:
- 1) the pampiniform plexus of veins
 - 2) the genital branch of the genitofemoral nerve
 - 3) the cremasteric artery
 - 4) remnants of the processus vaginalis
97. The prostate has :
- 1) a lateral lobe which gives rise to the uvula of the bladder
 - 2) a base in a horizontal plane that passes through the middle of the symphysis pubis
 - 3) the puboprostatic ligaments attached to its lower part
 - 4) the urethra leaving from its anterior surface just above and in front of the apex
98. The prostate:
- 1) has an outer capsule derived from the visceral fascia of the pelvis
 - 2) has an inner capsule which subdivides the prostate into lobules
 - 3) often receives blood via the superior and middle rectal arteries
 - 4) may decrease in size during the fifth decade
99. The ovary:
- 1) in its usual position has a nearly vertical long axis
 - 2) is covered by peritoneum
 - 3) has medial surface covered by the uterine tube
 - 4) lies medial to the obturator nerve
100. The uterine tube:
- 1) is about 10 cm long
 - 2) is attached to the lower pole of the ovary by fimbria
 - 3) has a lumen which decreases in size as it passes medially
 - 4) has a thick submucosa

101. The uterus:
- 1) usually lies exactly in the median plane
 - 2) is commonly twisted
 - 3) is entirely covered by peritoneum
 - 4) is generally anteverted and anteflexed
102. The uterus;
- 1) is supplied solely by the uterine artery
 - 2) sends some lymph to the superficial inguinal lymph nodes
 - 3) has a cervix which is incompletely surrounded by peritoneum
 - 4) has a venous system which does not anastomose with the portal venous system
103. The rectum:
- 1) is about 15 cm long
 - 2) is narrowest at its junction with the sigmoid colon
 - 3) is usually well demarcated from the sigmoid colon
 - 4) begins at the level of the third piece of the sacrum
104. The rectum has:
- 1) lateral curvatures
 - 2) haustrations
 - 3) a longitudinal muscle layer which gives slips to the urethra in the male
 - 4) a lower two thirds which is non-peritoneal
105. Posterior relations of the rectum include:
- 1) the lateral sacral arteries
 - 2) piriformis
 - 3) the sympathetic trunk
 - 4) the lumbrosacral trunk
106. The anal canal:
- 1) is about 3 cm long
 - 2) has about 30 anal columns
 - 3) is medial to the ischiorectal fossa
 - 4) has anterior anal sinus which are longer than posterior sinuses
107. Sphincter ani externus:
- 1) has the pectinate line opposite its middle
 - 2) decreases in tone during sleep
 - 3) has a double nerve supply
 - 4) surrounds the lower two-thirds of the anal canal
108. The rectum and anal canal are supplied by the :
- 1) superior rectal artery
 - 2) middle rectal artery
 - 3) inferior rectal artery
 - 4) median sacral artery

109. Levator ani:
- 1) is supplied solely by sacral nerves which enter the muscle on its abdominal aspect
 - 2) has medial fibres which form levator prostatae (pubo prostaticus)
 - 3) is not attached to the perineal body
 - 4) sends fibres to the longitudinal muscle layer of the anal canal
110. Muscles attached to the perineal body include:
- 1) transversus perinei superficialis
 - 2) recto-vaginalis
 - 3) sphincter ani externus
 - 4) ischiocavernosus
111. Contents of the deep perineal pouch include the:
- 1) bulbo-urethral glands
 - 2) sphincter vesicae
 - 3) transversus perinei profundus
 - 4) spongy part of the urethra
112. The left common iliac vein:
- 1) begins in front of the left sacro-iliac joint
 - 2) ends on the right side of the fourth lumbar vertebra
 - 3) receives the median sacral vein
 - 4) is shorter than the right
113. The superior hypogastric plexus is in front of the :
- 1) bifurcation of the abdominal aorta
 - 2) left common iliac vein
 - 3) median sacral vessels
 - 4) promontory of the sacrum
114. The inferior hypogastric (pelvic) plexus:
- 1) is on the side of the rectum
 - 2) is on the base of the bladder
 - 3) is formed mainly from the hypogastric nerve
 - 4) contains parasympathetic fibres
115. Internal oblique or its aponeurosis:
- 1) is attached to the inguinal ligament
 - 2) contributes to the posterior sheath of rectus abdominis
 - 3) is attached to the pubic crest
 - 4) has in its opening called the deep inguinal ring
116. Covering an indirect inguinal hernia is the :
- 1) cremasteric fascia
 - 2) external spermatic fascia
 - 3) internal spermatic fascia
 - 4) transversalis fascia

117. The superficial inguinal ring;
- 1) transmits the ilioinguinal nerve
 - 2) is an opening in the aponeurosis of external oblique
 - 3) may transmit an indirect inguinal hernia
 - 4) may transmit a direct inguinal hernia
118. The thoracolumbar fascia:
- 1) has its middle layer attached to lumbar transverse processes
 - 2) has its anterior layer attached to the bodies of lumbar vertebrae
 - 3) provides an attachment for posterior fibres of internal oblique
 - 4) provides an attachment for posterior fibres of external oblique
119. Nerves appearing at the lateral border of psoas major include the:
- 1) iliohypogastric
 - 2) genitofemoral
 - 3) lateral cutaneous of the thigh
 - 4) obturator
120. Structures crossed by the root of the “mesentery” include:
- 1) iliacus fascia
 - 2) inferior vena cava
 - 3) (R) psoas
 - 4) (R) sympathetic trunk

Answers: Anatomy 2, Abdomen and Pelvis

1	D	41	F T T F	81	T T T T
2	D	42	F T T T	82	F F T T
3	C	43	T F T F	83	T T F T
4	A	44	T T T F	84	F T F T
5	E	45	T T T F	85	F F T T
6	D	46	T T T T	86	F T F T
7	C	47	F F T T	87	T T T T
8	E	48	F F F T	88	T F T T
9	A	49	F T F T	89	F T T F
10	D	50	T T T T	90	T F T F
11	D	51	T F F T	91	T T T F
12	A	52	T T T T	92	F T F F
13	E	53	T F T T	93	T T T T
14	A	54	F F T T	94	T T T F
15	C	55	T F F T	95	T T T T
16	B	56	F F F T	96	T T T T
17	B	57	T T T F	97	F T T T
18	A	58	F T F T	98	T T T T
19	D	59	T T T T	99	F F F T
20	C	60	T T T T	100	T F T F
21	A	61	T T T T	101	F T F T
22	D	62	T F T T	102	F T T F
23	A	63	T T T F	103	T T F T
24	E	64	T F T F	104	T F T F
25	A	65	F T T T	105	T T T F
26	B	66	F F T T	106	T F T F
27	C	67	T F T T	107	T T T T
28	B	68	T T T T	108	T T T T
29	E	69	T F T F	109	F T F T
30	E	70	F F F T	110	T T T F
31	A	71	T T T T	111	T F T F
32	D	72	F T T F	112	T F T F
33	C	73	T T T T	113	T T T T
34	A	74	T T T T	114	T F F T
35	A	75	T F F T	115	T T T F
36	B	76	F T T F	116	T T T T
37	A	77	T F T F	117	T T T T
38	C	78	F T T F	118	T F T F
39	E	79	T T T F	119	T F T F
40	A	80	F T F T	120	T T T F