



**AMREF INTERNATIONAL UNIVERSITY  
SCHOOL OF MEDICAL SCIENCE  
DEPARTMENT OF REHABILITATION MEDICINE  
BACHELOR OF SCIENCE IN PHYSIOTHERAPY  
END OF SEPT-DECEMBER 2024 TRIMESTER EXAMINATIONS**

**UNIT CODE: PHT 213      UNIT NAME: REGIONAL ANATOMY (ABDOMEN,  
PELVIS AND PERINEUM)**

**DATE:            Thursday/ 5th/ December  
TIME:            TWO HOURS  
START:           2PM                            STOP : 4PM**

**INSTRUCTIONS (physical exams)**

**Do not write on this question paper**

(Marks and questions distribution as per program curriculum.)

1. This exam is marked out of 70 marks
2. This Examination comprises 3 Sections
3. This exam shall take 2 Hours

**Section A. Multiple choice questions. Answer all the questions (30 Marks)**

**1.** The structure that connects the kidneys to the urinary bladder is the:

- a) Urethra
- b) Renal pelvis
- c) Ureter
- d) Collecting duct

**2.** In the anterior abdominal wall, the rectus sheath?

- a) Completely encloses the upper  $\frac{1}{4}$  of rectus abdominal muscles
- b) Epigastric vessels lie between the rectus abdominis muscle and the rectus sheath posteriorly
- c) Anterior lower  $\frac{1}{4}$  of rectus abdominis muscle lies directly on the transverse fascia
- d) Last end of rectus sheath anteriorly to the rectus muscle is called arcuate line

**3.** How best can the superficial fascia of abdominal wall be explained:

- a) It is one layer above the umbilicus and becomes two layers below it
- b) It splits to enclose the inguinal ligament
- c) The deep membrane layer is in continuation with anterior part of perineum into the ischiopubic rami and posterior margin of perineal membrane
- d) All the above

**4.** The following statements are incorrect about muscles of the posterior abdominal wall EXCEPT?

- a) Iliacus muscle fiber join the medial part of the psoas muscle tendon to be inserted into the femur.
- b) In sitting up from a lying position, the psoas muscle can flex the thigh on trunk.
- c) The iliolumbar ligament is thickened above of lumbar fascia which cover the anterior surface of quadratus lumborum
- d) Quadratus lumborum lies adjacent to transverse processes of lumbar vertebrae.

**5.** In relation to the Diaphragm, which is the correct description of the attachment:

- a) Right crus are attached to L1
- b) Left crus is attached to L2
- c) Lateral arcuate ligament is formed by fascia of psoas major muscle overlapping the diaphragm
- d) All the above

**6.** The functional unit of the kidney is called:

- a) Glomerulus
- b) Calyx
- c) Nephron
- d) Corpuscle

**7.** A midline abdominal incision below the umbilicus passes through all of the following except?

- a) Linea alba
- b) Pyramidalis
- c) Extra peritoneal fat
- d) Transverse fascia

**8.** Which layer of the uterus is shed during menstruation

- a) Perimetrium
- b) Myometrium
- c) Endometrium
- d) Eclometrium

**9.** Which statement is correct regarding the anterior abdominal wall

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

**10. Regarding the kidneys:**

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

**11. Regarding the duodenum:**

- a) All of the duodenum is retroperitoneal
- b) The 3rd part receives the bile duct
- c) The 3rd part is crossed by the superior mesenteric artery
- d) The 2nd part passes over the hilum of the right kidney
- e) The 4th part is 5 cm long

**12. Which of the following explains the pelvic floor best:**

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

**13. How best can you explain the ureter?**

- a) Passes anterior to the uterine artery in the female
- 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 genitofemoral nerve

**14.** How can you best describe the duodenum:

- a) It is a retroperitoneal structure
- b) It lies between the levels of L2-L4
- c) It is 25cm in length
- d) In its fourth part, it lies to the right of the aorta
- e) All of the above

**15.** The following statements concerning the diaphragm are correct except which?

- a) Is thin musculotendinous sheet that can be ruptured by extreme pressure from below.
- b) The right crus provide a sphincter-like mechanism for the esophagus.
- c) On contraction, the diaphragm increases the intrathoracic pressure
- d) On contraction, the diaphragm assists in the return of venous blood to the right atrium and lymph to the thoracic duct.
- e) When viewed from in front, the central tendon lies behind the xiphisternal joint.

**16.** In relation to the diaphragm, the azygos vein passes:

- a) Through the oesophageal hiatus.
- b) Through the aortic hiatus
- c) Through the vena caval hiatus.
- d) Through the perforation in the crura.
- e) Between the slips of the origin of the diaphragm from the ribs.

**17.** Regarding the abdominal aorta:

- a) Inferior phrenic artery is one of visceral branches.
- b) The thoracic duct leaves the abdomen through aortic opening on left side of the aorta
- c) The head of pancreas lies anteriorly.
- d) Aortic Aneurysms results from atherosclerosis which occur in the old men

**18. The diaphragm**

- a) Has an aortic opening which transmits the right vagus nerve
- b) Has an oesophageal opening at the level of T8
- c. Is supplied in its central part mainly by the pericardiophrenic and musculophrenic arteries
- d) Is pierced by the left phrenic nerve at the left dome
- e) Has a left dome which lies higher than the right dome

**19. The followings are related to the vagina except:**

- a) Pouch of Douglas
- b) Urogenital diaphragm
- c) Vestibule
- d) Uterovesical pouch
- e) Urethra

**20. Where are the male ejaculatory ducts situated?**

- a) In the testicles before the epididymis.
- b) Between the bulbourethral glands and the urethra.
- c) At the end of the vas deferens (ductus deferens)
- d) In the penis.

**21. Which structure does the male reproductive tract pass through?**

- a) The seminiferous vesicles
- b) The bulbourethral gland
- c) The bladder
- d) The prostate

**22. Majority of the volume of a male ejaculation occurs from?**

- a) Epididymis
- b) Seminiferous tubules
- c) Seminal vesicles
- d) Prostate gland

**23.** The “external urethral meatus” is another name for?

- a) The shaft of the penis
- b) The prostate gland
- c) The scrotum
- d) The opening at the end of the penis

**24.** What is the name given to a young woman’s first menstrual period?

- a) Menses
- b) Eclampsia
- c) Menarche
- d) Amenorrhea

**25.** In what part of the kidney are the glomeruli located?

- a) In the medulla
- b) In the hilus
- c) In the cortex
- d) In the minor calyces

**26.** The place where the arteries, veins, lymphatics and nerves enter or leave the kidney is called?

- a) The reno-atrio notch
- b) The carina
- c) The renal pelvis
- d) The hilus

**27.** Which is the most common site of the appendix?

- a) Retro-ileal
- b) Pelvic
- c) Retro-caecal
- d) Anterior to terminal ileum
- e) Below terminal ileum overlying psoas

**28.** As the ureters enter the bony pelvis, they pass anterior to the:

- a) Femoral nerve
- b) Genitofemoral nerve
- c) Psoas muscle
- d) Gonadal artery
- e) Common iliac artery

**29.** What structure separates the thoracic cavity from the abdominal cavity?

- a) The mediastinum
- b) The peritoneum
- c) The diaphragm
- d) The pylorus

**30.** The Anterior abdomen is divided into zones or regions, which term is NOT used to identify a region of the abdomen?

- a) Left hypochondriac
- b) Hypogastric
- c) Epigastric
- d) Right sacral

**Section B Structured Short Answer Questions. Answer all the questions. (20 marks)**

**31.** Describe the foramina in the bony pelvis (10 Marks)

**32.** Explain the anterior abdominal muscle (10 Marks)

**Section C Structured Long Answer Questions. Answer two of these three questions (20 marks)**

**33.** Describe the subdivisions of the bony pelvis (10 Marks)

**34.** Describe the pelvic wall (10 Marks)

**35.** Describe the male urethra (10 Marks)