



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF REHABILITATIVE MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF JAN-APRIL 2024 SEMESTER EXAMINATIONS

UNIT CODE: PHT 213

UNIT NAME: HUMAN ANATOMY ABDOMEN AND PELVIS

DATE: 8TH APRIL 2024
TIME: TWO HOURS
START: 9:00 AM STOP: 11:00AM

INSTRUCTIONS

- 1. Attempt all questions as per the instructions in each section**
- 2. This exam is marked out of 70 marks**
- 3. This Examination comprises of Sections A, B and C**
- 4. It is the student's responsibility to report any page and number missing in this paper.**
- 5. Total number of pages are 9 including the cover page.**
- 6. Read through the instructions carefully before starting.**
- 7. Any aspect of cheating detected during and or after the exam administration will lead to nullification of your exam.**
- 8. Do not write on this question paper, use the provided booklet to write your answers**

SECTION A

1. The following boundaries of the abdomen are correctly matched with their respective structures that form them except?
 - a. Superiorly - costal margins and xiphoid process
 - b. Inferiorly - pubis symphysis, iliac crest, pubic crest, and inguinal ligament.
 - c. Laterally – mid axillary line
 - d. Medially - linea nigra
2. Which one of the following is not a quadrant of the abdomen?
 - a. Epigastric
 - b. Umbilical
 - c. Hyperchondriac
 - d. Lumbar
3. Which one of the following dermatomes corresponds to the umbilical area?
 - a. T 10
 - b. T 12
 - c. L 1
 - d. T 8
4. Which of the following blood vessels is the first branch of abdominal aorta?
 - a. Superior mesenteric artery
 - b. Inferior mesenteric artery
 - c. Celiac trunk
 - d. Common iliac artery
5. The ampulla of Vater (hepatopancreatic ampulla) enter the gastrointestinal tract at which part of the duodenum?
 - a. D 1
 - b. D 2
 - c. D 3
 - d. D 4

6. Which one of the following blood vessel give the principal blood supply to the midgut?
 - a. Celiac trunk
 - b. Superior mesenteric artery
 - c. Inferior mesenteric artery
 - d. Splenic artery
7. Which of the following quadrants is predominantly occupied by the appendix?
 - a. Right iliac fossa
 - b. Left iliac fossa
 - c. Suprapubic region
 - d. Umbilical region
8. The esophagus pierces the diaphragm at which level of the vertebral column?
 - a. T 9
 - b. T 10
 - c. T 11
 - d. T 12
9. Which one of the following blood vessel gives predominant blood supply to the liver?
 - a. Hepatic artery proper
 - b. Hepatic vein
 - c. Right gastric artery
 - d. All of the above
10. The obturator nerve gives articular branches to both the knee and hip joints, therefore pain perceived at the knee joint can be referred to the hip joint and vice versa.
 - a. True
 - b. False

11. Which one of the following is the largest lobe of the liver?
- a. Left lobe
 - b. Right lobe
 - c. Caudate lobe
 - d. Quadrate lobe
12. Which one of the following is not a lobe of the liver?
- a. Left lobe
 - b. Right lobe
 - c. caudate lobe
 - d. Quadrangular lobe
13. The visceral peritoneum lines the abdominal wall while the parietal peritoneum lines the organs found within the abdominal wall
- a. True
 - b. False
14. Which one of the following is the strongest ligament of the uterus?
- a. Round ligament
 - b. Broad ligament
 - c. Ovarian ligament
 - d. Cardinal ligament
15. Which one of the following abdominal organs is the most commonly injured in a blunt abdominal trauma?
- a. Liver
 - b. Spleen
 - c. Kidneys
 - d. Bladder

16. The omentum is also called?
- Mesentry of the abdomen
 - Policeman of the abdomen
 - Peritoneum of the abdomen
 - Visceral layer of the abdomen
17. Which parts of the large intestines are considered to be retroperitoneal?
- Ascending colon only
 - Both ascending and transverse colon
 - Both ascending and descending colon
 - Ascending, transverse and descending colon
18. Which one of the following arteries gives predominant blood supply to the hind gut?
- Celiac trunk
 - Superior mesenteric artery
 - Inferior mesenteric artery
 - None of the above
19. Which one of the following is true in regards to the vagus nerve?
- It is a major sympathetic nerve that innervates organs of the thoracic and abdominal cavities
 - It is a major parasympathetic nerve that innervates organs of the thoracic and abdominal cavities
 - It is a major somatic nerve that innervates organs of the thoracic and abdominal cavities
 - All the above are true
20. The muscular layer of the gastrointestinal tract consists of an inner longitudinal and an outer circular smooth muscle.
- False
 - True

21. All the following are true about the esophagus except
- It lies posterior to the trachea
 - It lies anterior to the trachea
 - Pierces the diaphragm at the level of T 10
 - Has both upper and lower esophageal sphincters
22. During sexual intercourse, which branch of the autonomic nervous system helps in ejaculation?
- Parasympathetic nervous system
 - Sympathetic nervous system
 - Both parasympathetic and sympathetic nervous system
 - None of the above
23. Which part of the large intestine acts as the temporary store of feces?
- Descending colon
 - Sigmoid colon
 - Rectum
 - Anus
24. Which one of the following statement is correct regarding anal sphincters?
- The internal anal sphincter is formed from the voluntary skeletal muscles of in the bowel wall
 - The internal anal sphincter is formed from the involuntary skeletal muscles in the bowel wall
 - The internal anal sphincter is formed from the involuntary smooth muscles of the bowel wall
 - The external anal sphincter is formed from the involuntary smooth muscles of the bowel wall
25. Which one of the following muscles does not form part of the levator ani muscles?
- Pubococcygeus
 - Puborectalis
 - Iliococcygeus
 - Coccygeus

26. Anatomically, the left kidney lies slightly higher than the right kidney)
- True
 - False
27. Which one of the following nerves of the bladder promote micturition (urination)
- Sympathetic nervous system
 - Parasympathetic nervous system
 - Somatic nervous system
 - All the above
28. Which of the following statement is false in regards to the prostate gland?
- Lies anterior to the rectum
 - Lies posterior to the pubic symphysis
 - Has the first part of the urethra called prostatic urethra
 - Is found in both males and females
29. The female urethra is approximately Long?
- 4 centimeters long
 - 4 meters long
 - 4 millimeters long
 - None of the above
30. Bartholin's gland form part of the internal female genital organs
- True
 - False

SECTION B

1. Discuss four functions of the gastrointestinal tract (2 marks)
2. The lower esophageal sphincter has been classified as a physiological (functional sphincter). Discuss three factors that help in maintaining its integrity (3 marks)

3. With the aid of a diagram, illustrate abdominal wall layers from superficial to deep (3 marks)

4. Discuss the iliacus muscle under the following subheadings (4 marks)
 - i. Origin
 - ii. Insertion
 - iii. Nerve supply
 - iv. Actions

5. Discuss the spleen under the following subheadings (5 MARKS)
 - i. Its location in the abdomen (1 mark)
 - ii. The parts of the spleen (1 mark)
 - iii. Two functions (1 marks)

6. With the aid of a diagram, illustrate parts of the stomach (3 marks)

SECTION C: ANSWER ONLY TWO QUESTIONS

1. With the aid of a diagram, illustrate the formation of the nine quadrants of the abdomen, naming each of them and stating at least two contents in each (10 marks)
2. Discuss the biliary tree under the following subheadings (10 marks)
 - i. With the aid of a diagram, illustrate its formation (6 marks)
 - ii. Which part of the duodenum does it open at and what is the name of that opening (2 marks)
 - iii. State its clinical relevance (2 marks)
3. Discuss the internal female genital organs under the following subheadings: (10 marks)
 - i. With the aid of a diagram, illustrate the parts of the internal female genital organs (4 marks)
 - ii. List two functions of the vagina (1 mark)
 - iii. Which part of the fallopian tube does fertilization takes place? (1 mark)
 - iv. List the two factors that help in transport of the ovum within the fallopian tube to the uterus (2 marks)
 - v. List the two layers of the endometrium. Of the two layers, which layer is usually shed during menstruation? (2 marks)

END