



**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2019/2020 ACADEMIC YEAR**

**MAIN EXAMINATION**

**FOR THE DEGREE  
OF  
BACHELOR OF MEDICAL LABORATORY SCIENCES**

**COURSE CODE: BML 122**

**COURSE TITLE: SYSTEMIC HUMAN ANATOMY**

**DATE: 8<sup>TH</sup> DECEMBER 2020**

**TIME: 8.00 -10.00AM**

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**INSTRUCTIONS TO CANDIDATES**

This paper is divided into three sections, **A B** and **C**, carrying respectively: Multiple Choice Questions (**MCQs**), Short Answer Questions (**SAQs**) and Long Answer Questions (**LAQs**). **ANSWER ALL QUESTIONS**

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over

**BML 122: SYSTEMIC HUMAN ANATOMY (MAIN PAPER)**

**SECTION A: Answer all questions in this section.**

- Q1. Name the structure in the developing fetus that shunts blood from the right atrium to the left atrium
- Ductus venosus
  - Foramen ovale
  - Ductus arteriosus
  - Mitral valve
- Q2. The location of the thymus is
- Neck region
  - Abdominal cavity
  - Mediastinum
  - Peritoneum
- Q3. Coronary sinuses drain into which chamber of the heart?
- Left atrium
  - Left ventricle
  - Right atrium
  - Right ventricle
- Q4. The epigastric region of the abdomen is superior to
- Esophagus
  - Umbilical region
  - Nasopharynx
  - Laryngopharynx
- Q5. Lymph vessels entering the lymph node are called
- Afferent lymphatic vessels
  - Efferent lymphatic vessels
  - Capillaries
  - Arterioles
- Q6. The process of arresting bleeding by the body is called?
- Homeostasis
  - Hemostasis
  - Hematopoiesis
  - Erythropoiesis
- Q7. The tiny finger-like projections that covering the plicae of the small intestine are called
- Microvilli
  - Gastric pits
  - Villi
  - Lacteals
- Q8. Sino-atrial node is located in the
- Wall of the left atrium
  - Wall of the left ventricle
  - Wall of the right atrium
  - Wall of the right ventricle
- Q9. Which peritoneal structure is attached to the lesser curvature of the stomach?
- Spleen
  - Liver
  - Lesser omentum
  - Greater omentum
- Q10. The blood capillaries involved in making a filtrate of blood in the kidney are collectively called
- Podocytes

- b) The glomerulus
- c) Nephrons
- d) Bowman's Capillaries

Q11. Which of the following arteries are found at the junction between the cortex and medulla of the kidney?

- a) Interlobular
- b) Arcuate
- c) Interlobar
- d) Renal

Q12. The renal vein drains into the

- a) Abdominal aorta
- b) Hepatic portal vein
- c) Inferior vena cava
- d) Common iliac veins

Q13. The male urethra lies within which portion of the penis?

- a) Vesicular
- b) Corpus cavernosum
- c) Corpus spongiosum
- d) Bulbourethra

Q14. The muscle that causes wrinkling of the skin of the scrotum

- a) Testicularis
- b) Epididymis
- c) Cremaster
- d) Dartos

Q15. The two \_\_\_\_ openings and the \_\_\_\_ opening form a structure known as the urinary trigone

- a) Urethral; Ureter
- b) Bladder; Ureter
- c) Ureter; urethral
- d) Fallopian; Urethral

Q16. Which of the following function as resistance vessels?

- a) Elastic arteries
- b) Muscular arteries
- c) Arterioles
- d) Capillaries

Q17. Which of the following is a derivative of mesoderm?

- a) Lens of eye
- b) Pituitary gland
- c) Enamel of teeth
- d) Cortex of suprarenal gland.

Q18. Von-Ebner's glands are found:

- a) On the soft palate
- b) On the tongue
- c) On the lips

- d) On the cheeks

Q19. The superficial temporal and maxillary veins join to form:

- a) Posterior auricular vein
- b) External jugular vein
- c) Retro-mandibular vein
- d) Internal jugular vein

Q20. The lymphatics from the tip of the tongue drain into:

- a) Submandibular lymph nodes
- b) Submental lymph nodes
- c) Parotid lymph nodes
- d) Jugulo-digastric lymph nodes

**SECTION B: Answer all questions from this section**

Q1. Draw a well labeled diagram of a multipolar neuron and state its function. (4mks)

Q2. Describe the microscopic structure of the colon. (4mks)

Q3. Describe the structures of human Urinary bladder. (4mks)

Q4. List any four cranial nerves and give the function of each (4mks)

Q5. Describe the anatomy and functions of the heart valves (4mks)

Q6. Contrast the epithelium of the bronchioles with that of the alveoli and explain how the structural difference is related to their functional differences. (4mks).

Q7. Name all the ducts the sperm follow, in order, from the time they form in the testis to the time of ejaculation (4mks).

Q8. Distinguish between the pulmonary and systemic circulations and state which part of the heart serves each one (4mks)

Q9. Describe intrinsic salivary glands, stating their functions (4mks)

Q10. Name the 4 extrinsic muscles of the tongue (4mks)

**SECTION C: Answer all questions in this section**

Q1. Describe the anatomy and functions of the liver. (20mks)

Q2. Briefly describe the anatomy of human respiratory system. (20mks)

Q3. Describe both gross and microscopic anatomy of human stomach. (20marks)