



# **MURANG'A UNIVERSITY OF TECHNOLOGY**

## **SCHOOL OF PURE, APPLIED AND HEALTH SCIENCES**

### **DEPARTMENT OF HEALTH SCIENCES**

#### **UNIVERSITY ORDINARY EXAMINATION**

**2023/2024 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR**

**OF SCIENCE IN MEDICAL LABORATORY SCIENCE**

**HNB 121 – ANATOMY II**

**DURATION: 2 HOURS**

#### **INSTRUCTIONS TO CANDIDATES:**

1. Answer question ONE any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

## SECTION A (20 MARKS): MULTIPLE CHOICE QUESTIONS

1. The arteries that branch off the abdominal aorta to serve the digest organs are called
  - A. Splanchnic circulation
  - B. Portal circulation
  - C. Mesentery circulation
  - D. Digestive circulation
2. What forms the roof of the mouth
  - A. Lips
  - B. Oral vestibules
  - C. Labial frenulum
  - D. Palate
3. The PH of saliva is
  - A. 5.6
  - B. 6.25
  - C. 6.75
  - D. 7.75
4. Hydrochloric acid is secreted by
  - A. Mucous neck cells
  - B. Parietal cells
  - C. Chief cells
  - D. Enteroendocrine cells
5. Which of the following is a branch of brachial plexus?
  - A. Auxiliary nerve
  - B. Supra – clavicular nerve
  - C. Greater auricular nerve
  - D. Lesser occipital nerve
6. Which of the following is not a function of the hypothalamus?
  - A. Regulation of water balance
  - B. Regulation of sleep and wakefulness
  - C. Control of endocrine system
  - D. Control of digestive system
7. The soft mater that covers the brain is

- A. Arachnoid mater
  - B. Pai mater
  - C. Dura mater
  - D. Sub arachnoid mater
8. The cranial nerve that is responsible for balancing and hearing is
- A. 5
  - B. 6
  - C. 8
  - D. 7
9. The part of small intestine that is widest and fixed in
- A. Duodenum
  - B. Jejunum
  - C. Ileum
  - D. Hepatopacretic junction
10. The ligament that separates the right and left lobe of the liver is
- A. Round ligament
  - B. Falciform ligament
  - C. Coronary ligament
  - D. Lateral ligament
11. Which of the following is not produced in the exocrine part of the pancreases?
- A. Lipase
  - B. Nucleases
  - C. Insulin
  - D. Proteases
12. The following are cells found on juxtaglomerular complex except
- A. Macular densa
  - B. Granular cells
  - C. Extra glomerular mesangial cells
  - D. None of the above
13. Gland that produces hormones and lack duct are called
- A. Exocrine
  - B. Endocrine

- C. Autocrine
  - D. Paracrine
14. Which hormone is secreted by neurohypophysis
- A. Oxytocin
  - B. Melanin
  - C. Melanocyte stimulating hormone
  - D. Luteinizing hormone
15. Inner thinner layer of the skin is called
- A. Epidermis
  - B. Dermis
  - C. Subcutaneous layer
  - D. Hypodermis layer
16. Melatonin is produced by which gland
- A. Thyroid gland
  - B. Adrenal gland
  - C. Parathyroid gland
  - D. Pineal gland
17. Odoriferous glands are mainly found on the
- A. Axilla, feet
  - B. Axilla, palms
  - C. Axilla and genital areas
  - D. Genital areas and gluteal region
18. The esophagus is lined by which type of tissues
- A. Keratinized epithelium
  - B. Squamous epithelium
  - C. Cuboidal epithelium
  - D. Columnae epithelium
19. Which part of the eye control the amount of light entering the eyes
- A. Iris
  - B. Lens
  - C. Retina
  - D. Choroid

20. The processes that carry impulses towards the cell body are called

- A. Dendrites
- B. Axons
- C. Nerve cells
- D. Schwann cells

**SECTION B (50 MARKS): SHORT ANSWER QUESTIONS**

- a) Draw a well labelled diagram of the kidney. (5 marks)
- b) Explain five (5) sphincters of the gastro intestinal tract. (5 marks)
- c) State the layers of the adrenal cortex and give the hormones produced in each layer. (5 marks)
- d) State five functions of the skin (5 marks)
- e) State five cells of nervous system. (5 marks)
- f) Explain five cranial nerves giving the functions of each. (5 marks)
- g) Highlight five functions of the liver. (5 marks)
- h) State hormones that are involved in digestive process of the digestive system. (5 marks)
- i) Using a diagram, demonstrate the flow of bile. (5 marks)
- j) State five layers that make up the epidermis of the skin. (5 marks)

**SECTION C (30 MARKS): LONG ANSWER QUESTIONS**

- 1. Describe the five parts of the brain giving functions of each. (15 marks)
- 2. a) Explain five muscles of the pelvic floor and their functions. (10 marks)
- b) Discuss five hormones involved in reproductive system. (5 marks)