

**CHUKA**



**UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**FIRST YEAR EXAMINATION FOR THE AWARD OF  
BACHELOR OF SCIENCE (NURSING)**

**NURS 114: HUMAN ANATOMY II**

**STREAMS: Y1 T2**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 31/3/2021**

**2.30 PM – 4.30 PM**

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**INSTRUCTIONS TO CANDIDATES**

- Do not write anything on the question paper.
- Mobile phones and any other reference materials are **NOT** allowed in the examination room.
- The paper has three (3) Sections. **ALL** the questions are compulsory
- Your answers for Section A (MCQs) should be on the first page of the answer Booklet.
- Number **ALL** your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.

**SECTION A: MULTIPLE CHOICE QUESTIONS (20 Marks)**

1. Extrinsic muscles of the larynx include:
  - a) Sternothyroid, omohyoid
  - b) Cricothyroid, sternothyroid
  - c) Cricoartenoid, thyroarytenoid
  - d) Omohyoid, arytenoids
2. Part of the respiratory system where gaseous exchange occurs include:
  - a) Terminal bronchioles
  - b) Respiratory bronchioles
  - c) Larynx
  - d) Pharynx

3. Difference between the right and left lung is that the right lung:
  - a) Is located inferiorly
  - b) Has a lingula
  - c) Receives a single bronchial artery
  - d) Lacks an oblique fissure
  
4. Kupffer cells and osteoclasts are derived from:
  - a) Basophils
  - b) Macrophages
  - c) Neutrophils
  - d) Monocytes
  
5. Concerning eosinophils:
  - a) Increase in bacterial infection
  - b) Nucleus has 5 lobes
  - c) Has cytoplasmic granules that cover the nucleus
  - d) Granules contain heparin and histamine
  
6. Examples of muscular arteries are:
  - a) Common Iliac, femoral
  - b) Femoral, renal
  - c) Subclavian, common carotid
  - d) Celiac, axillary
  
7. The vein that receives blood from vertebral veins is:
  - a) External jugular
  - b) Internal jugular
  - c) Brachiocephalic
  - d) Superior vena cava
  
8. Which of the following is associated with the right side of the heart:
  - a) Pulmonary artery
  - b) Bicuspid valve
  - c) Fossa ovalis
  - d) Sino-atrial node
  
9. Lymphatic cells include:
  - a) Dendritic, B-lymphocytes
  - b) Basophils, B-Lymphocytes
  - c) Basophils, T- lymphocytes
  - d) Eosinophils, dendritic

10. The most abundant cell in the secondary follicles of the lymph node is the:
  - a) Memory B
  - b) T-Lymphocyte
  - c) Plasma
  - d) B-lymphocyte
  
11. Oxytocin is a hypothalamic hormone. It is synthesized by:
  - a) Supraoptic nucleus
  - b) Neurohypophysis
  - c) Pineal gland
  - d) Paraventricular nucleus
  
12. Superior hypophyseal arteries that supply the adenohypophysis with blood arise from which artery:
  - a) Internal carotid
  - b) External carotid
  - c) Cerebral
  - d) Basilar
  
13. Follicular cells of the thyroid gland:
  - a) Are found between the follicles
  - b) Are columnar in shape
  - c) Contain microvilli
  - d) Are multinucleated
  
14. Proximal convoluted tubes:
  - a) Extends into the renal medulla
  - b) Nestles between afferent and efferent arterioles
  - c) Has a length of 15 mm
  - d) Contains simple columnar epithelium
  
15. Intercalated cells of the kidney:
  - a) Have receptors for Aldosterone
  - b) Have microvilli on the apical surface
  - c) Has fewer mitochondria than principal cells
  - d) Are more numerous than principal cells
  
16. Colliculi are four rounded elevations that serve as reflex centers for visual activity. They are located in the:
  - a) Midbrain

- b) Hypothalamus
- c) Pons
- d) Medulla oblongata

17. Mixed cranial nerves include:

- a) Optic, olfactory
- b) Trigeminal, abducens
- c) Hypoglossal, accessory
- d) Glossopharyngeal, vagus

18. Contents of the spermatic cord include:

- a) Testicular artery, dartos muscle
- b) Testicular artery, cremaster muscle
- c) Epididymis, cremaster muscle
- d) Epididymis, dartos muscle

19. The epididymis:

- a) Has a length of 6 cm
- b) Unites with the ductus deferens to form an ejaculatory duct
- c) Contains pseudostratified columnar epithelium
- d) As a serosa containing numerous blood vessels

20. The male homolog of labia minora is the:

- a) Scrotum
- b) Glans penis
- c) Spongy urethra
- d) Penis

**SECTION B: SHORT ANSWER QUESTIONS (40 Marks)**

- 1. Compare and contrast neutrophils and monocytes [5 marks]
- 2. Describe the structural organization of the ventricular wall [6 marks]
- 3. Describe the histology of the oropharynx [6 marks]
- 4. State the four(4) regions of the parietal pleura [4 marks]
- 5. Trace the route of flow of lymph from the thumb into the blood circulation [5 marks]
- 6. Explain the four(4) components of the filtration membrane [4 marks]
- 7. Describe blood flow to the kidneys [5 marks]
- 8. State five(5) types of bones giving an example of each [5 marks]

**SECTION C: LONG ANSWER QUESTIONS (40 Marks)**

1. Uterus is a supporting structure of the female reproductive system. It is situated between the urinary bladder and rectum. It measures 7.5cm long, 5cm wide and 2.5cm in women who have never been pregnant.
    - a) Describe the four components of the female reproductive system [12 marks]
    - b) Describe the layers of the wall of the body of the uterus [ 8 marks]
  
  2. Largest serous membrane of the body. It contains large folds that weave between the viscera.
    - a) Draw a well labeled diagram illustrating the regions and borders of the stomach [5 marks]
    - b) Describe the five(5) peritoneal folds [15 marks]
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