



# Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES  
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF  
MEDICAL LABORATORY SCIENCES  
**BMLS 13S REGULAR**

## **AML 4103 : HUMAN ANATOMY I**

SEMESTER EXAMINATION

APRIL 2014 SERIES

2 HOURS

Instructions to candidates:

This paper consists of **TWO** sections **A** and **B**

**Section A** -Contains MCQS, Answer **ALL** questions in **Section B**.

### **SECTION A - MCQs - (30marks)**

1. Which one of the following type of muscle is not found in the abdomen
  - a) External oblique
  - b) Transversus Abdominus
  - c) Internal oblique
  - d) Rectus Abdominos
  - e) PSOAS
2. Muscles are classified in groups by the action they have at a particular joint. Which of the following is not
  - a) Flexors
  - b) Abductors
  - c) Extensors
  - d) Adductors
  - e) Activators
3. Which one of the membrane Tissue layers lines the lungs

- a) Pleura
  - b) Peritonium
  - c) Pericardium
  - d) Epithelium
  - e) Endothelium
4. Which of the following are classified as long bones
- a) Fibula, Ulna, carpals
  - b) Humerus, Sternum, ribs
  - c) Tibia, tarsals, skull bones
  - d) Sternum fibula Ulna
  - e) Humerus , Tibia, Fibula
5. Which of the following is not one of the skin layers
- a) Granulosum
  - b) Lymph
  - c) Lucidium
  - d) Cornium
  - e) Dermis
6. Which of the following is not a function of bones
- a) Cavity boundary formation
  - b) Storage of calcium salts
  - c) Muscle attachment
  - d) Movement
  - e) Formation of lymph
7. Which is true about mitosis
- a) It occurs in gametes
  - b) Results in four daughter cells
  - c) Results in two daughter cells
  - d) Occurs in somatic cells
  - e) Both c and d
8. Which of the following is true about epithelial tissue
- a) Simple epithelium contains more than one layer of cells
  - b) Simple epithelium tends to be keratinized
  - c) Simple epithelium can be squamous, cuboidal or columnar
  - d) Simple epithelium can only be covering epithelium
  - e) Epithelia doesn't provide a defensive function
9. Function of epithelial tissue include the following except
- a) Sensation
  - b) Secretion
  - c) Absorption
  - d) Apoptosis
  - e) Contractility

10. Which cells are not found in the epidermis
- Oligodendrocytes
  - Melanocytes
  - Langerhans cells
  - Keratinocytes
  - Merkels cells
11. Which of the following is true about the central nervous system (CNS)
- There is equal distribution of myelin in the CNS
  - It has almost no connective tissue
  - The spinal cord is part of peripheral nerves system
  - White matter contain neural cell bodies
  - Schwann cells form the sheath of nerve fibers.
12. Which of the following is true about smooth muscles
- Is a striated muscle
  - Is a voluntary muscle
  - Has intercalated disks
  - Involved in weak involuntary contraction
13. Actin and myosin are
- Require no energy
  - Found in smooth muscles
  - Are contractile proteins
  - Are glandular substances
  - None of the above
14. Which of the following is true about blood
- Is a form of connective tissue
  - Is made up of formed element and plasma
  - Serum has the coagulant
  - Both b and c
  - Both a and b
15. Lysosomes are
- Lysosomal enzymes have optimal activity at electrum pH
  - Synthesize and transport lipids
  - They are found within the nucleuse
  - Sites of intercellular digestion and turn over of cellullor components
  - Lacks phagocytic activity
16. Which of the following clearly describes the boundaries of cranial cavity
- Anteriorly-frontal bone, laterally parental bone, posteriorly temporal bone superiorly occipital bone, inferiorly sphenoid ethno and part of temporal bone.
  - Anteriorly frontal bone, posteriorly occipital bone , laterally parictal bone Superiorly sphenoid bone, Inferiority ethmoid bone
  - Anteriorly occipital bone, posteriorly frontal bone , laterally ethmoid bone

- Suprally parietal bone , Inferiority sphenoid bone
- d) Anteriorly frontal bone , posteriorly occipital bone, laterally temporal bone, superiorly parietal bone ,Inferiorly sphenoid ethmoid and part of temporal bone
  - e) None of the above

17. Which of the following is not a content of the thoracic cavity

- a) Lungs
- b) Diaphragm
- c) Nerve
- d) Heart
- e) Lymph nodes

18. Which of the following muscles is involved in the act of kissing

- a) Orbicularis oculi
- b) Orbicularis oris
- c) Zygomaticus major
- d) Zygomatic minor
- e) Platysma

19. Which of the following is part of the body's dorsal cavity

- a) Thoracic cavity
- b) Abdominal cavity
- c) Pelvic cavity
- d) Cranial cavity
- e) Peritoneal cavity

20. Which of the following is not true about connective tissue

- a) Made up of three classes of components, cells, fibers, and ground substance
- b) Connective tissue is responsible for providing and maintaining form in the body
- c) Extracellular matrix is the major constituent of connective tissue
- d) Connective tissue has very few cells and fibers
- e) Ground substance imparts strength and rigidity to matrix

21. Which of the following is not a muscle of mastication

- a) Masseter
- b) Medial pterygoid
- c) Platysma
- d) Temporalis
- e) Lateral pterygoid

22. When one is pushing a wall what type of muscle contraction is involved

- a) Isotonic contraction
- b) Eccentric contraction
- c) Isometric contraction
- d) Concentric contraction

- e) Both a and b
23. Which of the following statement is false
- Hairs originate in the epidermis
  - Hair growth is influenced by hormones
  - Hairs are keratinized structural
  - Erector pill muscle controls the contraction of the hair shaft
  - The dermal papilla contains the capillary network necessary for sustainly the hair follicle
24. Which of the following is not a function of bone tissue
- Support
  - Movement and posture
  - Defence and protection of vital organ
  - Hematopoies
  - Synthesize calcitonin
25. Which of the following forms the axial skeleton
- Bones of upper and lower extremities
  - Only the bones of upper extremities
  - Cranial bones and vertebral column bones
  - Cranial bones and bones of upper extremities
  - Cranial bones and bones of the lower extremities
26. The attachment of a muscle to a bone is called \_\_\_\_\_
- Connective tissue proper
  - Fascia
  - Tendon
  - Aponeuroses
  - Both c and d
27. Which of the following is not a principle body tissue
- Connective tissue
  - Nervous
  - Bone
  - Epithelial
  - Muscle
28. The abdomen is divided into four quadrant. The liver is forms in which quadrant?
- Right upper quadrant
  - Right lower quadrant
  - Left upper quadrant
  - Left lower quadrant
  - Both a and b
29. Which of the following describes the anatomic position
- Arms at the side
  - Palms eyes face formed
  - Person stands erect

- d) Both a and c
- e) All of the above

30. Which of the following statement is false

- a) The sternum is anterior to the heart
- b) The sternum is ventral to the heart
- c) The sternum is dorsal to the heart
- d) The ear is lateral to the eye
- e) The thymus is superior to the heart.

**SECTION B ESSAY**  
**(ANSWER ALL QUESTION IN THIS SECTION)**

1. (a) Describe the boundaries of the abdominal cavity and the organs found there in.

**(10marks)**

(b) Name the organs found in the pelvic cavity .

**(10marks)**

2. Give a brief description of the muscle mystification origin insertion and action. **(20marks)**