



TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

BACHELOR OF MEDICAL LABORATORY SCIENCES

BMLS 4103: HUMAN ANATOMY I

SPECIAL/SUPPLEMENTARY EXAMINATION

SERIES:SEPTEMBER 2017

TIME: 2HOURS

DATE: SEPTEMBER 2017

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose NoSection(s). Attempt ALL questions.

Circle the correct answer in section A.

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Section A.

Attempt all the questions provided in this section

1. A structure composed of two or more tissues is termed:
  - a. organ
  - b.organelle
  - c. serous membrane
  - d. complex tissue
  - e. organ system
2. Which of the following defines visceral pleura:
  - a. is the membrane lining surface of the lungs
  - b. is the membrane lining the wall of the thoracic cavity
  - c. is the fluid around the lungs
  - d. is the thinnest portion of the peritoneum
  - e. is a membrane covering the bone tissue
3. The anatomical position is characterized by all of the following except:
  - a. palms facing posterior

- b. thumbs pointing laterally
  - c. face pointing anteriorly
  - d. body standing upright
  - e. none of the above
4. Which of the following lies fully ipsilateral to the left iliac region:
- a. epigastric region
  - b. left hypochondriac region
  - c. right inguinal region
  - d. hypogastric region
  - e. right lumbar region
5. The "basic unit of life" is:
- a. the atom
  - b. water
  - c. the cell
  - d. the chemical level of organization
  - e. organ system
6. The elbow in relation to the wrist is :
- a. distal
  - b. lateral
  - c. ventral
  - d. proximal
  - e. posterior
7. The heart in relation to the lungs is located :
- a. superior
  - b. dorsal
  - c. medial
  - d. lateral
  - e. distal
8. Which of the following can be found in cartilage but not bone tissue:
- a. lacunae
  - b. protein fibers
  - c. blood vessels
  - d. chondroitin
  - e. none of the above
9. The stratum corneum:
- a. Is the layer of the epidermis that contains the youngest cells
  - b. Provides no protection from mechanical abrasion
  - c. Is the thinnest cell layer in thin skin
  - d. Can be considered an example of epithelial connective tissue
  - e. None of the above
10. Epithelia that consist of more than one layer of cells is termed:
- a. striated
  - b. stratified

- c. stipilated
  - d. intercalated
  - e. complex epithelia
11. The matrix of connective tissue is composed of:
- a. cells, fibers and ground substance
  - b. cells and fibers
  - c. fibers and ground substance
  - d. cells and ground substance
  - e. only ground substance
12. Small hair-like structures on the surface of some epithelial cells are termed:
- a. cilia
  - b. glia
  - c. villi
  - d. microvilli
  - e. microglia
13. Which of these cells are located in bone tissue:
- a. chondroblasts
  - b. osteocytes
  - c. fibroblasts
  - d. chondrocytes
  - e. mast cells
14. Which of the following heals the quickest after injury:
- a. bone
  - b. epithelium
  - c. cartilage
  - d. muscle
  - e. nerve
15. Which of the following does not describe skeletal muscle tissue fibers:
- a. striated
  - b. voluntary
  - c. multinucleate
  - d. branched
  - e. none of the above
16. A tissue viewed under the microscope displays cells in little holes, densely packed fibers and no blood vessels. This describes:
- a. dense regular connective tissue
  - b. hyaline cartilage
  - c. fibrocartilage
  - d. adipose tissue
  - e. loose connective tissue
17. Which of the following characteristics can be used to describe epithelial tissue:
- a. it is derived from mesenchyme
  - b. sarcomas originate from it

- c. it is well vascularized
  - d. it forms the glands of the body
  - e. does not divide with mitosis
18. The serous membrane lining the surface of the lung is the:
- a. parietal pleura
  - b. visceral peritoneum
  - c. visceral pleura
  - d. peritoneal pleura
  - e. pericardium
19. The dense connective tissue covering outer surface of bone diaphyses is termed:
- a. perichondrium
  - b. periosteum
  - c. endosteum
  - d. exofibrum
  - e. articular cartilage
20. A fracture in the shaft of a long bone would be a break in the:
- a. epiphysis
  - b. metaphysis
  - c. diaphysis
  - d. epiphyseal plate
  - e. mesenchyme
21. Yellow marrow consists of:
- a. osteoprogenitor cells
  - b. blood cell progenitor cells
  - c. hyaline cartilage
  - d. adipose
  - e. spongy bone
22. Which of the following is produced by Chondroblasts?
- a. basement membranes
  - b. bone matrix
  - c. cartilage matrix
  - d. mesothelium
  - e. endothelium
23. Soft connective tissue membranes between the cranial bones at birth are:
- a. an indication of microcephaly
  - b. frontal sinuses
  - c. epiphyseal plates
  - d. cribriform plates
  - e. fontanelles
24. Which of the following is not a cranial suture:
- a. epiphyseal
  - b. lambdoidal
  - c. coronal
  - d. sagittal
  - e. squamous
25. The two pairs of bones that make up the hard palate are the right and left:
- a. zygomatic and temporal
  - b. palatine and maxillae

- c. maxillae and zygomatic
  - d. maxillae and mandible
  - e. mandible and zygomatic
26. The anatomic location of the spinal canal is
- a. caudal
  - b. dorsal
  - c. frontal
  - d. transverse
  - e. ventral
27. Which of the following is a structural, fibrous protein found in the dermis?
- a. Collagen
  - b. Heparin
  - c. Lipocyte
  - d. Melanin
  - e. Sebum
28. Which of the following is the point at which an impulse is transmitted from one neuron to another neuron?
- a. Dendrite
  - b. Glial cell
  - c. Nerve center
  - d. Synapse
  - e. Terminal plate
29. The majority of the dermis is composed of:
- a. Stratified squamous epithelium
  - b. Areolar tissue
  - c. Adipose tissue
  - d. Reticular tissue
  - e. Dense irregular connective tissue
30. Which of the following is true about the spinal cord
- a. Enlargements occur in the cervical and lumbar regions
  - b. It forms part of the peripheral ganglia
  - c. Sympathetic ganglia is found in the spinal cord
  - d. Parasympathetic ganglia is found in the spinal cord
  - e. None of the above

## Section B

Answer all the questions

31a. Describe the boundaries of abdominal cavity and organs found therein. { 13mks }

31b. Name the organs found in the pelvic cavity. { 7mks }

32a. Describe the characteristics of epithelial cells { 10marks }

32b. describe the parts of long bones { 10marks }

