KENYATTA UNIVERSITY

EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

HML 102: HUMAN ANATOMY 1

1ST SEMESTER, 2022/2023 TIME: 2 Hours

SECTION A:ANSWER ALL QUESTIONS: (4MARKS EACH)

1. a) Define the term tissue membrane (1 mark)
   b) Outline THREE types of epithelial membranes giving one anatomical site lined by each (3 marks)
2. Describe TWO components of the connective tissue (4 marks)
3. Differentiate between the following anatomical terms:
   a) Lateral and dorsal (2 marks)
   b) Proximal and ventral (2 marks)
4. Describe TWO classes of bone markings (4 marks)
5. a) State the structural difference between bicuspid valve and tricuspid valve (1 mark)
   c) Outline THREE layers that make up the wall of the heart and state the location of each n relation to the others (3 marks)

SECTION B: ANSWER ONLY ONE QUESTION (20 MARKS)

6. Describe:
   a) Types of bones based on their shapes (10 marks)
   b) The boundaries and contents of the femoral triangle (10 marks)
7. Discuss:
   a) Components of the hip bone (10marks)
   b) Five types of synovial joints based on type of movement (10 marks)

SECTION C: ANSWER ALL THE QUESTIONS BY INDICATING THE CORRECT ANSWER ON THE ANSWER BOOKLET (1/2 MARKS EACH)

1. Which body plane results in a cross-section image?
   A. Frontal
   B. Midsagittal
   C. Coronal
   D. Transverse

2. Which abdominopelvic region is located in the lower quadrant?
    A. Lumbar
    B. Epigastric
    C. Iliac
    D. Hypochondriac
3. Which anatomical term refers to the wall of a body cavity?
    A. Parietal
    B. Dorsal
    C. Cranial
    D. Visceral
4. The ciliated columnar epithelium is present in
    A. Bronchioles and Fallopian tube
    B. Bile duct and esophagus
    C. Fallopian tube and urethra
    D. Eustachian tube and stomach lining
5. Gap, tight and adhering junctions are found in
    A. Connective tissue
    B. Epithelial tissue
    C. Muscular tissue
    D. Neural tissue
6. Transitional Epithelium is found in?
    A. Stomach
    B. Lungs
    C. Urinary bladder
    D. Liver
7. Which one of the following contains the largest quantity of extracellular material
    A. Myelinated nerve fibres
    B. Striated muscle
    C. Stratified epithelium
    D. Areolar tissue
8. The types of fibres found in connective tissues are
    A. Collagen fibres
    B. Elastic fibres
    C. Reticular fibres
    D. All of the above
9. Which of the following is considered to be an irregular bone?
    A. Rib
    B. Humerus
    C. Vertebra
    D. Femur

Which of the following bones listed is an example of a short bone?

A. Femur
B. Cranium
C. Carpals
D. Radius

11. Compact bone is made of concentric rings of osteocytes called _____.

A. Lacunae
B. Osteons
C. Canaliculi
D. Trabeculae

12. Since osteocytes are stationary cells, they have to receive their nutrients via the _____.

A. Canaliculi
B. Lacunae
C. Trabeculae
D. Osteons

13. The ends of long bones are called the _____.

A. Epiphyses
B. Diaphyses
C. Metaphyses
D. Endosteum

14. At the medial end, the clavicle articulates with?

A. Scapula
B. Manubrium
C. Humerus
D. Radius

15. Which is the longest and heaviest bone of the body?

A. Humerus
B. Radius
C. Femur
D. Ulna

16. Which of the following is NOT a bone of the neurocranium?

A. Palatine bones
B. Parietal bones
C. Sphenoid bones
D. Temporal bones

17. The cervical region of the vertebral column consists of?

A. Seven vertebrae
B. 12 vertebrae
C. Five vertebrae
D. A single bone derived from the fusion of five vertebrae

18. Which of the following joints would be considered slightly moveable?
    A. Joint between each vertebrae
    B. Joint between the tibia and fibula
    C. Joint between individual carpal bones
    D. Joint between humerus and scapula
19. What classification of joints is found where the teeth meet with the mandible and the maxilla?
    A. Diarthrosis
    B. Synarthrosis
    C. Amphiarthrosis
    D. Biaxial joints
20. The sternum----------
    A. Consists of only two parts, the manubrium and xiphoid process
    B. Has the sternal angle located between the manubrium and body
    C. Receives direct attachments from the costal cartilages of all 12 pairs of ribs
    D. Articulates directly with the thoracic vertebrae