



**KENYA MEDICAL TRAINING COLLEGE
FACULTY OF CLINICAL SCIENCES
DEPARTMENT OF CLINICAL MEDICINE**

**END OF SEMESTER EXAMINATION
FOR
MARCH 2021 CLASS – YEAR 1 SEMESTER I**

PAPER: HUMAN ANATOMY I

DATE: 2nd August, 2021

TIME: 2 HOURS (8:00AM – 10:00 AM)

INSTRUCTIONS

1. This paper consists of:
 - Section 1 (20 Multiple Choice Questions)
 - Section 2 (4 Short Answer Questions)
 - Section 3 (2 Long Answer Question)
2. Attempt **ALL** Questions
3. Write your **ADMISSION NUMBER** on all the answer sheets provided and on the question paper.
4. Ensure that all examination answer scripts are handed in at the end of the examination
5. Ensure you sign in the 'sign IN and OUT' examination register provided

EXAMINATION NUMBER

Section 1 (20 Multiple Choice Questions)

1. The following are found attached to the surface of rough endoplasmic reticulum:
 - a. Ribosomes
 - b. Mitochondria
 - c. Golgi apparatus
 - d. Glycogen
 - e. Lysosomes
2. Regarding cell division:
 - a. Mitosis involves two segmental cell divisions.
 - b. Chiasmata formation occurs in meiosis only.
 - c. Meiotic division results in production of four diploid daughter cells.
 - d. Prophase is followed by Telophase then the G₂ phase.
 - e. None of the above.
3. The following are true regarding ribosomes except:
 - a. Are not visible under light microscopy.
 - b. Cells rich in them have basophilic cytoplasm.
 - c. Are important in protein synthesis.
 - d. Each has one large and one small sub-unit.
 - e. None of the above.
4. DNA is found mainly in the:
 - a. Ribosomes
 - b. Lysosomes
 - c. Nucleus
 - d. Golgi apparatus
5. Stratified squamous epithelium is found lining:
 - a. The vagina
 - b. The anterior 2/3 of the tongue
 - c. The rectum
 - d. (a) & (b)
 - e. c only.
6. The urinary bladder is lined by:
 - a. Pseudostratified columnar ciliated epithelium.
 - b. Simple cuboidal epithelium
 - c. Simple columnar epithelium
 - d. Simple squamous epithelium
7. The shape of cells in pseudostratified epithelium is:
 - a. Squamous
 - b. Columnar
 - c. Cuboidal
 - d. Transitional
8. During mitosis chromosomes first become visible in:

- a. Telophase
 - b. Metaphase
 - c. Prophase
 - d. Anaphase
9. 9.
- a. Somatic cells take part.
 - b. The haploid number of chromosomes is attained.
 - c. Cleavage never occurs.
 - d. The chromosomal number in daughter cells is equal to that of the parent cells.
10. Concerning the head of the femur, the following are TRUE except.
- a. The ligament of head contains a branch from the obturator artery.
 - b. Neck fracture damages the retinacular vessels and may be followed by avascular necrosis.
 - c. Is surrounded by an articular capsule that is deficient posteriorly.
 - d. Forms 2/3 of a sphere.
11. The nucleus:
- a. Is essential for multiplication of the cell.
 - b. Contains chromosomes even when not dividing.
 - c. Is essential for protein synthesis in the cell.
 - d. All the above.
12. On mitosis and meiosis:
- a. During prophase of mitosis, nuclear membrane dissolves.
 - b. During mitosis, chromatids become evident in telophase.
 - c. Meiotic division results in production of four diploid daughter cells.
 - d. During meiosis, somatic cells take part.
13. The frontal bone has got:
- a. A metopic suture in the Newborn
 - b. An orbital plate
 - c. Zygomatic processes
 - d. Air sinus(es)
14. The temporal bone has all the following except:
- a. Squamous part
 - b. Stylomastoid foramen
 - c. Petrous part
 - d. Mastoid process
15. The lambdoidal suture is the point of articulation between:
- a. Parietal bones
 - b. Parietal and occipital bones.
 - c. Nasal and frontal bones.
 - d. Halves of frontal bones.
16. Regarding the Occipital bone, find the TRUE statement:

- a. Ossifies only in membrane.
 - b. Articulates with parietal bones at the coronal suture.
 - c. Has no muscle attachment.
 - d. Is grooved by the superior petrosal sinus.
17. The sphenoid bone articulates with the following bones except:
- a. Superior concha
 - b. Ethmoid
 - c. Frontal
 - d. Occipital
18. The following ribs are typical except the:
- a. Ninth
 - b. Third
 - c. Fifth
 - d. Seventh
19. The shaft of the humerus has the following except.
- a. Has the lateral head of the triceps muscle attached to its upper posterior part.
 - b. Has a nutrient foramen directed downwards.
 - c. Has the radial nerve posterior to it.
 - d. Has the brachialis muscle attached to its anterior surface.
20. The female pelvis is different from the male pelvis in that:
- a. The false pelvis is shallow.
 - b. the pelvic inlet is transversely oval.
 - c. The pelvic cavity is roomier.
 - d. The pelvic outlet is large.

Section 2 (4 Short Answer Questions) (40 Marks)

1. Explain giving examples the levels of structural organizations of human body. **(10marks)**
2. a). State the functions of skeletal system. **(5marks)**
 b). state giving example the two major classes of bones and list with an example 3 types of bones **(5marks)**
3. Explain Ribs Using the two ways of classifying of ribs **(10marks)**
4. List the muscles of mastication and of the eye movement **(10marks)**

Section 3 (2 Long Answer Question) (40 Marks)

1. a. Draw and label the skull bones and sutures
- b. List the facial bones
- c. List 4 facial sinuses
2. Describe the spine

(12marks)

(4marks)

(4marks)

(20marks)