



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

SUPPLEMENTARY/SPECIAL EXAMINATIONS
SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE
BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBCHB)
END OF YEAR SUPPLEMENTARY/SPECIAL EXAMINATION
[2021/2022 ACADEMIC YEAR]

MEDS 210: MEDICAL ANATOMY I

STREAM: Y2 S2

TIME: 2 HOURS

DAY: WEDNESDAY, 9:00 – 11: 00 A.M.

DATE: 00/10/2020

INSTRUCTIONS

- 1. Do not write anything on this question paper.***
- 2. Attempt ALL questions***

SECTION A: SHORT ANSWER QUESTIONS

Answer all the questions.

QUESTION 1

- Outline the sensory nerve supply of the tongue (4 marks)
- Outline the veins involved in drainage of blood from the heart (3 marks)
- What are the structural components of the 'unhappy triad' (3 marks)

QUESTION 2

- Distinguish between direct and indirect inguinal hernias (4 marks)
- State the boundaries of the ischioanal fossa (3 marks)
- Outline the clinical manifestations of spinal cord hemi-section syndrome (3 marks)

QUESTION 3

- Identify 4 cells of stomach epithelium and state their functions (4 marks)
- List 3 ultrastructural features of adrenal cortical cells and account for those features (3 marks)
- Name 3 junctional complexes and state their role (3 marks)

QUESTION 4

- a) Outline 4 structural adaptations of the nasal cavity to the conditioning of air and state their role (4 marks)
- b) Distinguish 3 capillary types and indicate one location for each (3 marks)
- c) State 3 targets of retinal ganglion cell projections and the role of those projections (3 marks)

QUESTION 5

- a) State 8 structures that develop from the midgut and hind gut (4 marks)
- b) What are the derivatives of the sixth pair of pharyngeal arch arteries? (3 marks)
- c) Why the second week of development often is referred to as the week of twos? (3 marks)

QUESTION 6

- a) Briefly describe the development of the pituitary gland (4 marks)
- b) List developmental anomalies of the thyroid gland and briefly explain how they arise (3 marks)
- c) Differentiate between mitosis and meiosis. (3 marks)

SECTION B: COMPULSORY LONG ESSAYS

This question is compulsory.

QUESTION 7

- a) Outline the support structures of the uterus (5 marks)
- b) State the classification, nerve supply and 2 stability factors of the temporomandibular joint (3 marks)
- c) Discuss the histological organization of the thyroid (6 marks)
- d) Describe the development of the definitive/permanent kidney (6 marks)

SECTION C: OPTIONAL LONG ESSAYS

Choose one question.

QUESTION 8

- a) State the relations of the parts of the pancreas (10 marks)
- b) Outline the anatomic basis of carpal tunnel syndrome and list the clinical manifestations (5 marks)
- c) Describe the pattern of lymphatic drainage of the female breast (5 marks)

QUESTION 9

- a) Identify 4 receptors of the membranous labyrinth and state the sensory modality transduced by each (8 marks)
- b) Describe 3 patterns of hepatic parenchymal organization, stating the organizing principle of each pattern (6 marks)
- c) Name 3 fundamental types of microscopy and outline the underlying principle for each microscopic method (6 marks)

QUESTION 10

- a) Briefly describe the development of the tongue and list 3 developmental anomalies (8 marks)
- b) Describe circulatory adjustments that occur soon after birth and state 2 associated birth defects (6 marks)
- c) Describe the development of the skin and describe 2 congenital anomalies (6 marks)