

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE IN BACHELOR OF SCIENCE, BACHELOR OF SCIENCE IN MICROBIOLOGY AND BIOTECHNOLOGY, BACHELOR OF SCIENCE IN BIOLOGY AND BACHELOR OF SCIENCE IN MATHEMATICS

ZOOL 231: HISTOLOGY

STREAMS: BSc (Mathematics); Biology; Microbiology & Biotechnology; Science; Chemistry)

Y2S2

TIME:2 HOURS

DAY/DATE: THURSDAY 13/04/2023

8.30 A.M. –10.30 A.M.

INSTRUCTIONS

ANSWER ALL THE QUESTIONS IN SECTION A AND ANY TWO IN SECTION B.

SECTION A (30 MARKS)

Q1. Describe the structure and function of the following animal structures

- a. Filiform papillae (2 marks)
- b. Taste buds (2 marks)
- c. Eosinophils (2 marks)

Q2. a) Give the secretions of the following cells (2 marks)

- i. Leydig cells
- ii. Paneth cells
- iii. Paraventricular nuclei
- iv. Zymogenic cells

b) Explain the functions of the hepatocytes below (2 marks)

- i. Ito cells
- ii. Kupffer cells

c) Mention four cell types found in the epidermis of the skin (2 marks)

Q3. a) Describe the tunics/cell layer of the heart wall (3 marks)

b) Sequence the steps involved in impulse generating- impulse conducting system of the heart (3 marks)

Q4. a) Describe three types of cartilage tissue (3 marks)

b) State the role of the following structures of nervous tissue

i. Satellite cells (1 mark)

ii. Ependymal cells (1 mark)

iii. Microglia (1 mark)

Q5. a) Differentiate between eccrine and apocrine glands (3 marks)

b) Name a gland described by the following statements

i. Tubule-acinar gland (1 mark)

ii. Compound tubular gland (1 mark)

iii. Coiled tubular gland (1 mark)

SECTION B: 40 MARKS

Q6. Describe the structure, secretions and function of anterior pituitary gland (Adenohypophysis) (20 marks)

Q7. a) Give an overview of derivatives of the mammalian skin (12 marks)

b) Elaborate on the functions of the structures found within the gastrointestinal tract (8 marks)

Q8. a) Describe dense connective tissue in terms of structure, types and functions (10 marks)

b) Illustrate and describe the structure and functions of the parts of a motor neuron (10 marks)
