



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2022/2023 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER**

**SCHOOL OF NATURAL RESOURCE TOURISM  
AND HOSPITALITY**

**BACHELOR OF SCIENCE IN ANIMAL HEALTH  
AND PRODUCTION**

**COURSE CODE AHP 1206-01**

**COURSE TITLE: HISTOLOGY AND CELL BIOLOGY**

**DATE: 20/4/2023**

**TIME: 1430-1730 HRS**

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## **INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions

**HISTOLOGY AND CELL BIOLOGY [120 Marks]**

1. Discuss transport in cells under the below subheadings.
  - (a) Passive transport. (10 marks)
  - (b) Active transport. (5 marks)
  - (c) Bulk transports. (5 marks)
  
2. Describe mitosis. (20 Marks)
  
3. List any 10 cell organelles and state their function. (20 Marks)
  
4. Epithelial tissue are classified as simple and stratified, describe the subdivisions of simple and that of stratified epithelium. Use diagrams where necessary. (20 Marks)
  
5.
  - a. Write short notes on the histology of the gastrointestinal system. (5 Marks)
  - b. Write short notes on the histology of the alveoli. (5 Marks)
  - c. Write short notes on the histology of the glomerulus (5 Marks)
  - d. Write short notes on the histology of the uterus (5 Marks)
  
6.
  - a. Describe the cross-section of the milk vein using a diagram (5 Marks)
  - b. Write short notes on the histology of the myocardium (5 Marks)
  - c. By the aid of a labelled diagram, illustrate a neuron. (5 Marks)
  - d. List the structural components of the nervous tunic of the eye (5 Marks)

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**BACHELOR OF SCIENCE IN ANIMAL HEALTH  
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**PRACTICAL EXAM**

**COURSE CODE AHP 1206-01**

**COURSE TITLE: HISTOLOGY AND CELL BIOLOGY**

**DATE:20/4/2023**

**TIME: 1 HR**

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**INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions

## **HISTOLOGY AND CELL BIOLOGY [20 Marks]**

4. List the four main steps involved in histological processing of tissue samples. (4 Marks)
5. Mention one commonly used fixative in the processing of histological samples. (1 Mark)
6. Mention one reason for conducting a histological examination.(1 Mark)
7. a. Identify the tissue displayed. (1 Mark)  
b. Identify the respective anatomical layers labelled i, ii, iii, iv. (4 Marks)  
c. The cell type labeled 'x' plays an important role in innate immune function. Mention the anatomical name of the cell. (1 Mark)
8. a. Identify the tissue displayed. (1 Mark)  
b. Identify the anatomical structure labelled 'A'. (1 Mark)  
c. Mention the function of the structure mentioned in 5b above. (1 Mark)
9. a. Identify the anatomical name of organ displayed (1 Mark)  
b. Identify the part labeled 'C' (1 Mark)  
c. Briefly mention the function of the structure named in 6b above (1 Mark)
7. a. Identify the part labeled 'G' (1 Mark)  
b. Mention the type of epithelium that lines the part labeled 'G' (1 Mark)

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