



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS  
2022/2023 ACADEMIC YEAR  
FIRST YEAR SECOND SEMESTER**

**SCHOOL OF PURE APPLIED AND HEALTH  
SCIENCES  
BACHELOR OF WILDLIFE MANAGEMENT AND  
BACHELOR OF EDUCATION**

**COURSE CODE: ZOO 1204  
COURSE TITLE: BASIC ZOOLOGY II**

**DATE: 20/4/ 2023**

**TIME: 1100-1300 HRS**

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**INSTRUCTIONS TO CANDIDATE**

ANSWER ANY TEN (10) QUESTIONS.

ILLUSTRATE YOUR ANSWERS WITH SUITABLE DIAGRAMS AND  
EXAMPLES WHERE APPLICABLE

**Instructions: Answer any TEN (10) QUESTIONS (50MKS)**

1. With the aid of a diagram illustrate the fluid mosaic model of the plasma membrane. **(5marks)**
2. Giving examples state the general functions of connective tissues in higher vertebrates. **(5marks)**
3. Describe the digestion of starch in humans. **(5marks)**
4. Highlight the role of Van Leeuwenhoek, Robert Brown; Robert Hooke and Rudolf Virchow in the development of the cell theory. **(5marks)**
5. Distinguish between the following terms: Give examples.  
a) Endocrine and exocrine glands    b) Cristae and cisternae. **(5marks)**
6. With the aid of a diagram describe tubular re-absorption in humans. **(5marks)**
7. Draw and label a sketch diagram to show the three types of blood circulation in humans. **(5marks)**
8. Describe the functions of the cells found in connective tissues. **(5marks)**
9. State the role of the proteins occurring in the cell membrane. **(5marks)**
10. With examples explain the fact that hormones are antagonistic. **(5marks)**
11. Name the main steps and location of the processes of cellular respiration in humans. **(5marks)**
12. Explain how the structure of the relay neuron is related to its functions. **(5marks)**
13. Describe an experiment to illustrate the selectivity of the plasma membrane. **(5marks)**
14. You have been invited to a mixed secondary school to address Form Ones (F1s) on teenage pregnancy. Highlight five reasons why they should avoid sexual intercourse (coitus). **(5marks)**
15. Using diagrams only, illustrate the homeostatic control of salt and water in humans. **(5marks)**

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