



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES
FIRST SEMESTER, 2021/2022
(FEBRUARY - JUNE, 2022)**

MELS 173: LABORATORY ANIMAL SCIENCE

STREAM: Y1 S1

TIME: 3 HOURS

DAY: TUESDAY. 2:00 – 5:00 P.M.

DATE: 10/05/2022

INSTRUCTIONS:

- 1. Do not write anything on this question paper.***
- 2. Answer question ONE (Compulsory) in section B, answer question ONE (Compulsory) and any other questions.***

SECTION A (Answer all questions)-40 marks

1. Explain any five requirements to consider in setting up an animal laboratory
[5 marks]
2. Describe any one Biomedical research involving mice
[5 marks]
3. Highlight the significance of carbohydrates for laboratory animals
[5 marks]
4. Outline and describe briefly various types of formulas available for
laboratory animals
[5 marks]
5. Elucidate on the measures to control diseases in laboratory animals
[5 marks]

6. Outline the advantages of using Animal models in biomedical research

[5 marks]

7. Explain any two current approaches for obtaining specific pathogen-free animal colonies

[5 marks]

8. Explain the importance of maintaining special genetic stocks

[5 marks]

SECTION B: Answer question one (compulsory) and any other one

question-(30 marks)

1. Discuss the local and international guidelines governing the use of animals in research

[15 marks]

2. Discuss the possible types of hazards in the laboratory and explain their prevention

[15 marks]

3. Discuss the various routes of drug administration in laboratory animals

[15 marks]