



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2024/2025

FIRST YEAR FIRST SEMESTER EXAMINATION FOR CERTIFICATE IN ANIMAL HEALTH AND PRODUCTION

AAP 1106: BIOCHEMISTRY

DATE: JANUARY 2025

TIME: 1½ HOURS

INSTRUCTIONS:

*Answer question **ONE** and any other **TWO** questions*

QUESTION ONE (30 MARKS)

(a) Define the following terms

- | | |
|-----------------------|----------|
| i. Hydrocarbons | (1 Mark) |
| ii. Organic chemistry | (1 Mark) |
| iii. Carbohydrates | (1 Mark) |

(b) State three properties of amino acids (3 Marks)

(c) List functions of lipids in living organisms (4 marks)

(d) State the classifications of hydrocarbons (2 Marks)

(e) Give the properties of alkanes (4 Marks)

(f) State the functional groups of organic compounds (5 Marks)

(g) Discuss the classification of vitamins (5 Marks)

(h) State the deficiency symptoms of potassium (4 Marks)

QUESTION TWO (15 MARKS)

- (a) Explain the following polysaccharides (6 Marks)
- (i) Starch
 - (ii) Glycogen
 - (iii) Cellulose
- (b) Discuss two types of nucleic acids (4 Marks)
- (c) Discuss role of minerals in metabolism (5 Marks)

QUESTION THREE (15 MARKS)

- (a) State the uses of soap (5 Marks)
- (b) Discuss the classification of proteins (10 Marks)

QUESTION FOUR (15 MARKS)

- (a) State the nutritional disorders arising from defects in carbohydrate metabolism (5 Marks)
- (b) Discuss the differences between DNA and RNA (10 Marks)