



# TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

**UNIVERSITY EXAMINATION FOR:**

**BACHELOR OF TECHNOLOGY IN MICROBIOLOGY AND**

**BIOTECHNOLOGY**

**AAB 4305: BASIC METABOLISM III**

**END OF SEMESTER EXAMINATION**

**SERIES:** Select series Pick year

**TIME:** 2 HOURS

**DATE:** Pick Date Select Month Pick Year

## **Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose No questions. Attempt Choose instruction.

**Do not write on the question paper.**

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## **Question ONE**

- a) (i) Outline different sources of amino acids in the body (3 marks)**
- (ii) State the different fates of amino acids in the body (5 marks)**
- b) (i) Name five (5) inhibitors of Pyrimethamine nucleotide synthesis and their uses. (5 marks)**
- (ii) State the compounds contributing to different atoms of purine rings. (2 marks)**
- c) Describe the fate of amino acid nitrogen. (5 marks)**
- d) Describe the fate of carbon skeleton of amino acids. (6 marks)**
- e) Describe three reactions involved in the formation of ammonia. (4 marks)**

### **Question TWO**

- (i) Explain how the anticancer drugs block the synthesis of DNA. **(10 marks)**
- (ii) Define Gout and state the cure/ treatment of gout. **(10 marks)**

### **Question THREE**

Describe the degradation of Pyrimidine nucleotide and disorders involving degradation of purine nucleotide. **(20 marks)**

### **Question FOUR**

Describe the metabolism of branched chain amino acids including disorders of their catabolism. **(20 marks)**

### **Question FIVE**

Discuss the metabolism of Sulfur containing, Methionine amino acids and its associated disorders. **(20 marks)**