



TECHNICAL UNIVERSITY OF MOMBASA

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.

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)**