



TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:
BSPH

AAB 4106 : HUMAN GENETICS

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date **May 2016**

Instructions to Candidates

You should have the following for this examination

Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

- a. Define the following terms (6 marks)
- i) Pseudogene
 - ii) Centromere
 - iii) Cancer
- b. List four factors affecting PCR (4 marks)
- c. Differentiate between the following
- i) Domain and motif (5 marks)
 - ii) Mini and microsatellite (5 marks)
- d. Outline the stages of cancer (5 marks)
- f. Outline the causes and effects of Aneuploidy in man (5 marks)

Question TWO

Describe the structure of the following

a. Retroviruses (10 marks)

b. LINEs transposable elements (10 marks)

Question THREE

a) Explain replication in mitochondrial genome (10 marks)

b) Describe the four stage of the cell cycle (10 marks)

Question FOUR

a) Explain the causes and symptoms of Downs syndromes (10 marks)

b) Describe gastrulation process in a human embryo using illustration (10 marks)

Question FIVE

Describe plasmid vectors using illustration (20 marks)