



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (POPULATION HEALTH)

PPH 211 N: POPULATION GENETICS

DATE: Monday 2nd April 2012

TIME: 8.00 a.m. – 10.00 a.m.

INTRODUCTION

SECTION A: Answer question One (1).

1. a) Explain the meaning of autosomal recessive disorder and give 2 examples. [4marks]
- b) Write short notes on genetic drift [4marks]
- c) State the importance of the human genome project. [4marks]
- d) Write short notes on co-dominance inheritance. [4marks]
- e) Distinguish between independent assortment and random segregation of chromosomes. [4marks]

SECTION B: Answer question 1 and any other two (2) questions in this section

1. Discuss the applications of population genetics in improving human health. [15marks]
2. In reference to multi-allele inheritance, describe the human ABO blood group genotypes and phenotypes. [15marks]
3. Citing examples, describe the types of gene mutations. [15marks]
4. Describe the principles and applications of the Hardy Weinberg Equilibrium in population genetics. [15marks]