



National Open University Of Nigeria
Plot 91, Cadastral Zone, NnamdiAzikiwe Expressway, Jabi - Abuja
Faculty of Science
JANUARY/FEBRUARY 2018 EXAMINATION

COURSE CODE: BIO 301 CREDIT UNITS: 2

COURSE TITLE: GENETICS II

TIME ALLOWED: 2 Hours

INTRUCTION: Answer question ONE (1) and any other THREE (3) questions

- 1a. List the three main goals of population genetics (6marks)
- b. Name the four types of chromosomes abnormalities (4marks)
- c. Define aneuploidy (2marks)
- d. Name three inherited characteristics in man (3marks)
- e. What is an inborn errors of metabolism? (3marks)
- f. Define haemophilia (2marks)
- g. Explain the term disjunction (2marks)
- h. List the three ways by which polygenic traits can be identified (3marks)

- 2a. Explain the four factors that affect Hardyweinberg principles. (8marks)
- b. Discuss the application of aneuploidy. (7marks)

- 3a. Describe how genes determine sex in man (7marks)
- b. Write explanatory notes on mRNA (8marks)

- 4a. Explain the first single gene polymorphisms (5marks)
- b. Discuss the environment and gene expression (10marks)

- 5a. Describe polyploidy in animals (7marks)
- b. With examples explain the different types of polyploidy you know (8marks)