



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

INSTRUCTION: 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)
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- 2a. Explain the four factors that affect Hardyweinberg principles. (8marks)
 - b. Discuss the application of aneuploidy. (7marks)
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- 3a. Describe how genes determine sex in man (7marks)
 - b. Write explanatory notes on mRNA (8marks)
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- 4a. Explain the first single gene polymorphisms (5marks)
 - b. Discuss the environment and gene expression (10marks)
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- 5a. Describe polyploidy in animals (7marks)
 - b. With examples explain the different types of polyploidy you know (8marks)