

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
DEPARTMENT OF PLANT BIOLOGY  
FIRST SEMESTER BTECH. EXAMINATION, 2019/2020 SESSION

COURSE CODE PLB 413  
COURSE TITLE: CYTOGENETICS OF PLANT  
COURSE UNIT: 2  
TIME ALLOWED: 1½ HOURS

INSTRUCTION: ANSWER THREE (3) QUESTIONS IN ALL; ONE QUESTION FROM EACH SECTION

SECTION A

- 1 a. Define the term Mutation.
- b. With the aid of diagrams, explain the different types of structural chromosomal aberration.
- c. Explain effects of Mutagens on living organisms.

SECTION B

- 2 a. "Prophase stage is the most important stage of meiosis" Explain
- b i. Using a well labeled diagram, describe a typical plant cell.
- ii State the functions of each cell organelles mentioned in "bi" above
- 3 a. Succinctly describe the term polyploidy and state the different types.
- b. Explain the term non-disjunction.

SECTION B

- 4 Write notes on the following
  - a. Metacentric Chromosome
  - b. Telocentric Chromosome
  - c. Alpha Particles
  - d. Neutron Particles
  - e. Alkalators
- 5 a. Write concisely on interrelationship between evolution, species and organism
- b. Explain why ultraviolet light is unique.