

# United International University

## School of Science and Engineering

Class Test 3; Year 2021; Semester: Summer



Course: BIO 3105; Title: Biology for Engineers, Section: A

Upload instruction: RENAME pdf file as "Bio3105\_A\_ID"

- 1 Show pictorial view of the differences, as well as similarities between Metaphase and Metaphase I. Comment on the genetic variations that can be introduced via Metaphase I. 5+5
- 2 Suppose you have Persian cat with a variation of dark brown eye, which is a dominant trait, and another one of light brown eyes. In the second generation what would be the percentage of dark brown eyes? 5+5

If you had the genotype ratio of pure dark brown, mixed dark brown, and pure light brown to be 1:2:1, can you trace the parents' traits?