United International University

School of Science and Engineering

Class Test 4; Year 2021; Semester: Summer

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

Upload instruction: RENAME pdf file as "Bio3105_B_ID"

1 Show the pictorial view of PCR chain including polarities for DNA. 5

2 Mention the name of the characteristics of a competent host. How you would apply a complete rDNA to a plant (mention only the names of the means you are going to use). 5

3 (a) Suppose you have a restriction enzyme that has a recognition sequence GCCG. How you would complete the rDNA for a given sequence of one strand as below show in a pictorial view (You need to complete the DNA with a complementary strand before starting the process). 6+4

ATAACGATAGCCGTATTATGCAATGCATTACGAGCCGTATAAT

(b) Find the total number of base pairs of sample "A" and "C" from below.