



ELIZADE UNIVERSITY,  
ILARA-MOKIN, NIGERIA

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION

2020/2021 ACADEMIC SESSION

COURSE CODE: BTH 307

COURSE TITLE: Plant Tissue Culture

COURSE Unit(s): 2 Units

DURATION: 2 hours

Vetted EU  
12/03/2021

HOD's SIGNATURE

NAME:.....

MAT. No:.....

INSTRUCTIONS Answer any THREE questions.

1a. Table 1: Tissue culture propagation.

Use the table below to discuss the steps involved in plant tissue technique.

Day 1	One plant in tissue culture media
Day 40	5 plantlet cut and transplanted in media
Day 80	25 plantlets
Day 120	125 plantlets
Day 160	625 plantlets
Day 200	3,125 plantlets
Day 240	Transplant 3,125 plants to greenhouse
Day 280	Transplant 3,125 plants to field

Use the table above to discuss the steps involve in plant tissue technique.

1b. List three (3) factors to consider when choosing an explant

(20 Marks)

2a. Give detail definition of plant tissue culture.

2b. Explain five (5) types of tissue culture that you know.

(20 Marks)

3a. What are the advantages and disadvantages of autoclaving.

3b. Enumerate the problems of tissue culturing in Nigeria.

(20 Marks)

4a. Briefly summarize the actions of the following plant hormones:

i. Cytokinins

ii. Auxin

iii. Gibberellins

4b. Write briefly on organogenesis.

(20 Marks)

5a. Discuss various methods you can use to tests for viability of cultured cells.

b. Outlines the phases involved in callus growth in plant species.

(20 Marks)