

Eastern University, Sri Lanka

Final Year First Semester Examination in Agriculture 2004/2005

AGB 4101 Biotechnology (3: 30/300)

Answer all Questions

Time allowed: 2 hours

1.
 - a) What are the biochemical and microbial degradations occurring during the spoilage of fish?
 - b) List the breakdown steps of ATP to hypoxanthine during post-mortem changes in fish muscle.
 - c) Describe one chemical and one physical method to determine fish freshness.

2.
 - a) List out the *in vitro* techniques contributing to crop improvement and production.
 - b) Describe various stages involved in micropropagation with suitable diagrams.

3. Briefly describe
 - a) Animal cloning
 - b) Embryo transfer in cattle

4. Write short notes on the following;
 - a) Genomic Library
 - b) Cosmid vector in gene cloning
 - c) Sequence in Polymerase Chain Reaction (PCR) techniques