

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE GENERAL DEGREE LEVEL II (SEMESTER II)
JANUARY/FEBRUARY 2018

SUBJECT: Zoology

Time: 01 hour

COURSE UNIT: ZOO 2262- Molecular Genetics and Biotechnology

English medium

Answer **any two** questions only.
Illegible handwriting would be penalized.

1. Describe the polymerase-chain-reaction (PCR) based DNA fingerprinting technique and its current applications.

2. Answer **both** parts.
 - (i) Discuss the advantages of molecular markers over morphological markers for species identification.
 - (ii) Describe the use of allele-specific oligonucleotide (ASO) probes in disease diagnosis.

(Both parts will be given equal marks.)

3.
 - (i) What is meant by 'DNA hybridization technique'?
 - (ii) Using 'Southern blotting' as an example, briefly describe the method and the utility of DNA hybridization technique.

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