



Uva Wellassa University of Sri Lanka
End Semester Examination- September/October 2012
Faculty of Animal Science & Export Agriculture
BASc. Degree Programme
Year III Semester II



ANS 332-3 Animal Biotechnology –Essay - (Section III)

Instructions

Answer all questions in Section III in the booklet provided

No. of questions : Three (03)

No. of pages : One (01)

Time : One hour and thirty minutes (01 hr. 30 min.)

Total marks allocated : 60%

Index No:

1.

- a) Define the term **Genomic library** (20 marks)
- b) List major differences of **Genomic library** and **cDNA library** (30 marks)
- c) The **human Insulin gene** contains number of introns. In spite of the fact that **Bacterial cells do not excise** (remove/ splice) introns from mRNA,
Briefly explain how this gene (insulin gene) can be cloned into a bacterial cell to produce insulin from cell culture. (50 marks)

2. Few cattle of a high producing dairy herd are showing fever, reduced milk production and thickened milk contaminated with blood. These cattle are suspected for Leptospirosis, one of the contagious bacterial diseases among cattle. Design an experiment to diagnose Leptospirosis of this dairy herd using **Random Amplified Polymorphic DNA technology (RAPDs)**. (100 marks)

3. Write short notes on ,

- a) Somatic cell nuclear transfer (SCNT)
- b) Lac operon
- c) Uses and Applications of Transgenic Animals

(100 marks)

[End of Section III]