



SLIATE

SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Technology (Agriculture)

First Year, Second Semester Examination - 2015

AG 1205 – Ruminant Animal Production

Instructions for Candidates:

All questions do not carry equal marks.

Answer **part I** and **part II** on the paper itself, and will be collected after **one (01) hour**.

No. of questions : 07

No. of pages : 05

Time: **Three (03) hours**

PART – I

Question 01: Multiple Choice questions (MCQ)

Select the correct answer and under line it.

- (i) Which type of cattle management practice is followed in Mid Country production system?
- a) Intensive
 - b) Tethering
 - c) Semi intensive
 - d) Extensive
- (ii) Which type of production system is found with low amount of milk production?
- a) Hill country
 - b) Low country wet zone
 - c) Low country dry zone
 - d) Mid country
- (iii) What is the name called for “*Bos indicus*”?
- a) Humpless cattle
 - b) Humped cattle
 - c) European cattle
 - d) Draft cattle
- (iv) Which of the following is a draft type cattle?
- a) Tharpakar
 - b) Khillary
 - c) Hariyana
 - d) Ongola
- (v) Which of the following is a characteristic of a draft type breeds?
- a) Well-developed udder
 - b) Short barrel shape body
 - c) Loosen sheath and skin
 - d) Alertness

- (vi) Which is a non-ruminant animal mentioned below?
- Sheep
 - Deer
 - Elk
 - Swine
- (vii) How many temporary teeth found in the cattle?
- 20
 - 32
 - 25
 - 22
- (viii) Which is **NOT** a part of a fore stomach of a ruminant?
- Rumen
 - Reticulum
 - Omasum
 - Abomasum
- (ix) What is the compartment in the stomach responsible for collecting the foreign materials?
- Rumen
 - Reticulum
 - Omasum
 - Abomasum
- (x) What is the approximate value of milk that can be hold by Gland Cistern?
- 30 ml
 - 40 ml
 - 300 ml
 - 400 ml
- (xi) What is the dry period of a cow maintaining in an ordinary farms?
- 30-40 days
 - 20-30 days
 - 45-60 days
 - 35-60 days
- (xii) What is the suitable body condition score of a cow at dry off?
- 2-3
 - 2-4
 - 3.5 - 5
 - 3 – 3.5
- (xiii) What is the chromosome number of swam type buffaloes?
- 42
 - 44
 - 48
 - 50

- (xiv) What is the gestation period of buffaloes?
- 265 ±5 days
 - 275 ±5 days
 - 316 ±5 days
 - 298 ±5 days
- (xv) Which of the following is **NOT** a potential of buffaloes reared for milk purpose?
- They produce around 7l/day milk with poor quality grasses and roughages
 - They have low feed conversion efficiency
 - Their milk contain high amount of fat (7%)
 - Their milk contain high amount of total solid, so need comparatively less amount of milk to produce dairy products
- (xvi) Which of the following is **NOT** a semen collection method for Artificial Insemination?
- Artificial Vagina method
 - Collection tube method
 - Electro ejaculation method
 - Mechanical massage method

[Total 16 marks]

PART II

Question 02.

- (i) Write down 2 functions of saliva in farm animals.

 (2 marks)
- (ii) Write down three acids produced during the digestion of feed in ruminants.

 (3 marks)
- (iii) What are the steps in ingestion of feed in farm animals?

 (3 marks)
- (iv) Write down the Permanent dental formula of cattle.

 (4 marks)

[Total 12 marks]

Question 03.

(i) What is the name of the layer separating the right and left quarters of the udder in cattle?

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(2 mark)

(ii) What are the tissues found in the mammary gland?

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(2 marks)

(iii) What are the two phases of milking by using milking machine?

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(2 marks)

(iv) State two objectives of managing the heifers in the farm?

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(2 marks)

(v) Write down four stimulations to produce Oxytocin from pituitary gland.

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(4 marks)

[Total 12 marks]

PART III

Question 04.

- (i) What are the limitations found in Artificial Insemination? (5 marks)
- (ii) Discuss the importance of using Artificial insemination for farm animals. (10 marks)

[Total 15 marks]

Question 05.

- (i) What is the purpose of the dry period in dairy cows? (5 marks)
- (ii) Explain the formation of rumen in farm animals. (10 marks)

[Total 15 marks]

Question 06.

- (i) How do you determine the ash content of milk in proximate analysis method? (5 marks)
- (ii) Explain the management practices of draft cattle under following topics. (10 marks)
- a) Nutrition
 - b) Housing
 - c) Health care management
 - d) Handling

[Total 15 marks]

Question 07.

Write short notes on the following.

- (i) Structure of the ovary of cattle (5 marks)
- (ii) Milking methods (5 marks)
- (iii) Characteristics of Indian type dairy breeds (5 marks)

[Total 15 marks]