

ANH – Ruminants farming

T130

Tuesday, 15/11/2016

08:30 – 11:30

WORKFORCE DEVELOPMENT AUTHORITY



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**ADVANCED LEVEL NATIONAL EXAMINATIONS, 2016,
TECHNICAL AND PROFESSIONAL STUDIES**

EXAM TITLE: RUMINANTS FARMING

OPTION: ANIMAL HEALTH (ANH)

DURATION: 3hours

INSTRUCTIONS

The paper is composed of **two (2) main Sections** as follows:

Section I: Attempt **any SIX (6)** out of TEN questions. **30 marks**

Section II: Attempt **any SEVEN (7)** out of TEN questions. **70 marks**

Note:

Every candidate is required to carefully comply with the above instructions. Penalty measures will be applied on their strict consideration.

Section I. Choose and answer any six (6) questions

30 marks

01. The following statements have been identified to characterize the phenotype of the boar goat. Do you agree with them? Distinguish the right from the wrong ones, if necessary, using the table below:

- ❖ It is white on the body with a brown –red head and white line on the snout; with long ears and hair.
- ❖ It is completely white with medium ears which are little erected and slender
- ❖ It is dark brown to black color with light stripes on either side of the face which are often very distinct
- ❖ The coat color varies from black to white but may be brown with short ears which are pointed and lie horizontally.

Correct statements	False Statements
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.....

5 marks

02. Kagaba is a farmer working in your intervention region, and he is facing the problem of prolapsed cow. He calls you for assistance. What will be your intervention in order to manage or handle this situation?

5 marks

03. White Mountain sheep is one of the ruminants kept in Rwanda for dual purpose. Describe its characteristics.

5 marks

04. Feeding calves on bucket helps for good dairy herd management. How can you teach a calf to drink from a bucket? Illustrate the important considerations that should guide the farmer during the bucket-feeding.

5 marks

05. The nutrients needs of dry cows are generally not high during the lactation period. In fact, the farmer may take attention to avoid over feeding which may result in cows getting too fat. What will you advise to farmer for the good feeding of dry cow?

5 marks

06. Why could you suggest to the peasant farmer to improve his local breed using up-grading system? What is the purpose of such crossbreeding?

5 marks

07. One of the methods used to improve the livestock is to ascertain the control and the management of the reproduction. After natural mating or artificial insemination, it is imperative to proceed on pregnancy diagnosis. Illustrate the technique that will you use to perform this activity.

5 marks

08. One of the unsuccessfulness of animal reproduction is the failure to detect the animal heat on time. To overcome this situation you are called upon to provide your contribution. On which basis will help the farmers about the heat detection?

5 marks

- 09.** You are in charge of Girinka program you may follow up in one administrative cell. The national livestock policy emphasizes on permanent stabulation and requires the construction of cow sheds. You are called to sensitize the population of your intervention area about the concepts, purpose and advantages of tie stalls shelters. Help this population to clearly understand the tie stalls shelters. **5 marks**
- 10.** The pregnant ewe must be gradually given a better quality diet with a high concentration of metabolisable energy, protein and other important nutrients. Comment this argument. **5 marks**

Section II. Choose and Answer any seven (7) questions

70 marks

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- 11.** The Government of Rwanda is improving the cattle production by introducing the exotic breeds. You are tasked to supply the dairy breeds in Burera District. If you have to supply the *Bos taurus* cattle, what are the physical characteristics will you consider to differentiate them from the *Bos indicus* cattle? **10 marks**
- 12.** A farmer would like to buy a dairy goat since he found a market of goat milk.
- a.** As a livestock technician, advise the farmer about the breed that he will buy among the adapted and available breeds in Rwanda.
 - b.** Illustrate the phenotypic characteristics of the advised breed. **10 marks**
- 13.** A cooperative of farmers wants to intensify the small ruminant farming. The members of this cooperative do not have the necessary information about the small ruminant shelters. As a livestock technician in this area, help them to get the necessary knowledge about the goat shelter: explain to these farmers the characteristics of a good goat shelter and the main components of goat shelter if the cooperative will use the intensive farming system? **10 marks**
- 14.** You are called to assist a farmer during the parturition of a cow and you found that the cow gives birth without problem, but the calf is getting difficulties of breathing.
- a.** Indicate the ways that will you use to stimulate the breathing for the calf.
 - b.** What is the post partum care should be provided to the dam/mother? **10 marks**
- 15.** Design and label the following models of permanent cattle sheds as required by a project diffusing the dairy cattle in Gasabo district:
- a)** A single –row cattle shed
 - b)** Cattle shed with 2 rows, with animal facing each other. **10 marks**

16. What will be your interventions to take care of the newborn and dam after parturition? **10 marks**

17. The reason for establishing the animal buildings is to enhance their productivity by modifying the environment occupied with the animals and utilizing these construction structures. Therefore, what specific reasons are considered when establishing the animal buildings? **10 marks**

18. You meet a case of cow after parturition for which the uterus comes out through the vulva and the mass of uterus hangs below the hocks. Which post partum complication do you think about and how will you secure this animal health? **10 marks**

19. When constructing a ruminant shelter, different types of material can be used.
 a. What are the selection criteria to be considered for choosing any construction material?
 b. Outline the types of construction material that you can use in shelter construction. **10 marks**

20. Among the following statements, differentiate the correct from the false ones:
 (a) Reasons for flushing in sheep:
 ❖ to increase the growth rate of ewes
 ❖ to enable ewes produce twins during lambing
 ❖ to prevent the infertility in ewes
 ❖ to enable ewes produce fetus of female sex
 (b) The normal presentation from abnormal presentation during parturition for Ruminants:
 ❖ Front feet first with the head extended and the nose between the front feet
 ❖ Leg back presentation
 ❖ Four legs at once presentation
 ❖ leg overhead presentation

Reasons for flushing in sheep	Correct
	False
Parturition for ruminants	Normal presentations
	Abnormal presentations