FACULTY	**Health Sciences and Veterinary Medicine**		
DEPARTMENT	**School of Veterinary Medicine**		
SUBJECT	**Production Animal Clinical Studies V**		
SUBJECT CODE	**V3852PP**		
DATE	**November 2023**		
DURATION	**3 hours**	**MARKS**	**150**

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Internal Moderator: Dr F Chitate

External Moderator: Dr R.J.E. Stewart

This question paper consists of 8 pages, including this front page.

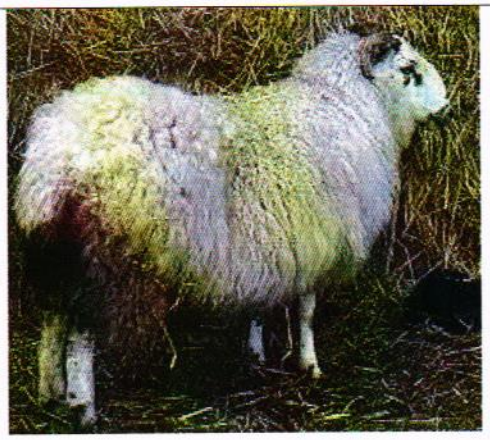
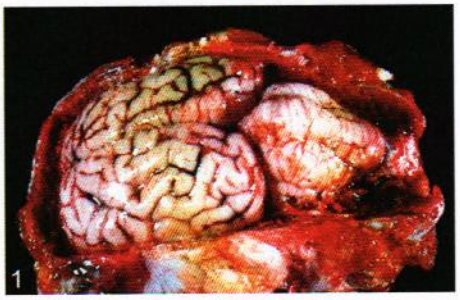
Instructions

Read the questions carefully
Answer ALL questions
Write clearly and concisely

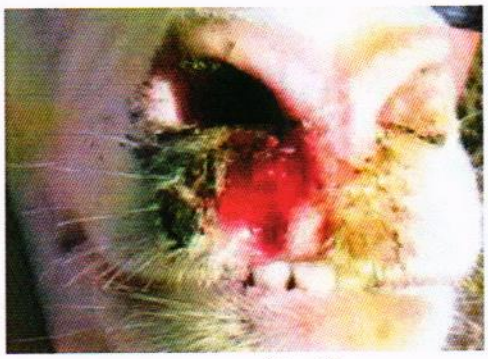
First Opportunity Examination

Section A [75 marks]

1	In mid-spring, you are presented with a 4-year-old ewe showing seizure activity (Fig 1 below). The sheep has drooping of the left ear and lowered left upper eyelid (ptosis). The sheep appeared normal last evening. There is a lack of menace response in the left eye and a flaccid left cheek.  Fig 1 a.What conditions would you consider? (Most likely first.) [4] b.What laboratory tests could be undertaken to confirm your provisional diagnosis? [4] c.What treatments would you administer? [4]	12
2	An 8-month-old ram lamb presents with a one-month history of unilateral scrotal swelling and stiff gait. There is a loss of wool on the affected side of the scrotum as shown in Fig 2. No other abnormalities are noted on clinical examination and there are no abortions in ewes reported so far.	8
3	A two-crop ewe from a group of 155 pastured sheep due to start lambing in 3 weeks has aborted two fresh fetuses. Three other abortions have occurred over the previous 5 days. The ewe is bright and alert but there is a red–brown vulval discharge over the wool of the tail and perineum as shown in Fig 3. The rectal temperature is 40.0°C (104.0°F). The udder is reasonably well developed and there is some accumulated colostrum.	13

	 Fig 3 a. What four samples would you collect for laboratory diagnosis? [4] b. List five common causes of abortion. [5] c. What control measures could be adopted? [4]	
4	Nineteen (19) sheep (10 adults and 9 lambs) were purchased one month ago on an organized farm at Mariental. Vaccination status was not known. Three lambs (2 female and 1 male) of 2 months old died suddenly without any signs. These lambs were well-fed and were reared in a feedlot. Postmortem examination revealed congestion in the lung, haemorrhages in the large intestine and generalized haemorrhage in the brain. (see Figs 4a and 4b below)  Fig 4a  Fig 4b a. Based on the acute nature of death, clinical signs and post-mortem lesions, what is your tentative diagnosis? [1] b. What samples can you take to confirm your diagnosis? Include a discussion of the laboratory workout. [7]	8
5	A two-crop ewe at pasture with month-old twin lambs at foot is found isolated from the remainder of the flock. The ewe appears very stiff and drags the left hindleg. The ewe is profoundly depressed with toxic mucous membranes. The	15

	rectal temperature is 40.6°C (105.1°F)) and the pulse is 120 beats per minute. The respiratory rate is 45 breaths per minute. There are no ruminal sounds. Examination of the udder reveals extensive swelling and discolouration of the left gland with subcutaneous oedema extending along the ventral abdominal wall to the brisket as shown in the picture below in Fig 5 :  Fig 5 a. What is your tentative diagnosis [1] b. What pathogens could be involved? [2] c. What is the prognosis? [2] d. What would you recommend and why? [4] e. What control measures could be adopted [6]	
6	An outbreak occurred on a farm in Mariental. The farmer had bought about 150 (Merino-type) ewes from a farmer in another district between 6 and 15 months before the outbreak. On enquiry, that farmer reported that he had never experienced any similar cases or outbreaks. The current owner, however, believed that a single case had occurred the previous year in his flock. The sheep were sent out to graze on *Eragrostis curvula* hay stubble during the day. Within some of the windrows not completely harvested during baling, several thistle plants were observed which, together with a few weeds, comprised the only green plants available at that time of year. At night the sheep were housed in close confinement as a precaution against theft. Here they were given access to commercial sheep pellets in feed troughs, as well as a block lick and hay bales. Normal vaccinations and anthelmintic treatments had been given but not immediately before the outbreak. The outbreak was reported to the State Veterinary Office in May for further investigation.	8

	All 147 sheep present on the farm were examined for skin lesions on the wool-free areas of the face, udder, legs and perineum. Photographs were taken and are shown below in Figs 6a, 6b, and 6c.  Fig 6a  Fig 6b   Fig 6c a. From the history and clinical presentation presented above, what are your differential diagnoses? [4] b. What are your recommendations to this farmer? [4]	
7	Halfway through lambing time a sheep client complains of high morbidity and mortality in 24–36-hr old lambs showing excess salivation with a wet lower jaw, cold mouth and poor suck reflex, and retained meconium See Fig 7 below.   Fig 7	11

	There is progressive abdominal distension with fluid and gas. The rectal temperature is subnormal. There is dehydration, poor peripheral perfusion with cold extremities, and a rapid weak pulse during the agonal stages. a. What conditions would you consider? [4] b. What treatments would you recommend? [3] c. What control measures would you instigate?[4]	

SECTION B [75 marks]

1. You are a state veterinarian in Khomas region and a cow is presented to you for necropsy. The pictures below (Fig. 1a & Fig. 1b) depict some of your post-mortem findings. Upon further enquiries, the farmer informs you that he had lost another cow the previous month and saw similar lesions.

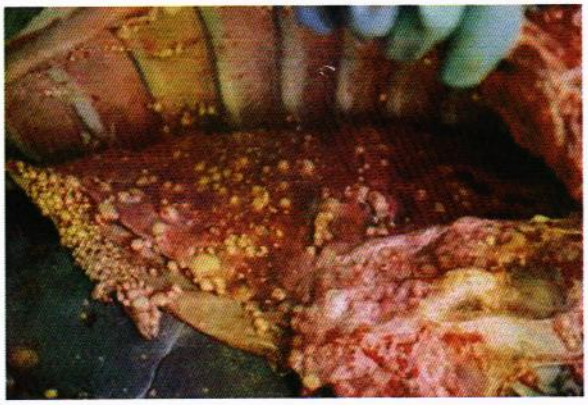


Fig. 1a

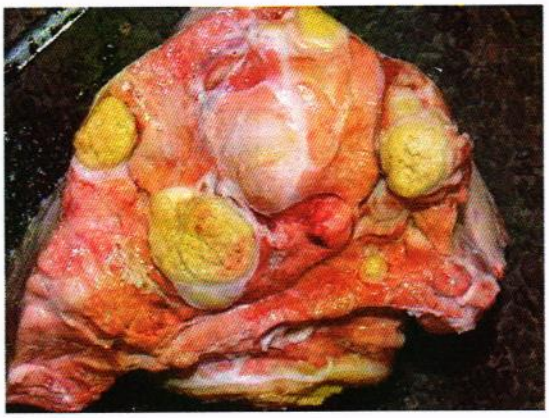


Fig. 1b

a) Give six differential diagnoses. [3]
b) What is the most likely diagnosis? [1]
c) What samples would you collect, and what tests would you request to confirm your diagnosis? [4]
d) If you decide to test the remaining animals at the farm of origin, which test would you choose? Justify your answer. [3]

e) In the interpretation of your results, what are your considerations? [4]

f) Suppose two cattle out of a herd of 100 test positive with your test, what steps would you take? [4]

2. You are a state veterinarian based in the northern communal areas of Namibia. A local farmer reports to you that he has lost ten cattle over the previous two weeks. Upon performing a post-mortem on one of his animals you observe the abnormalities depicted in the pictures below in Fig 2a and 2b:

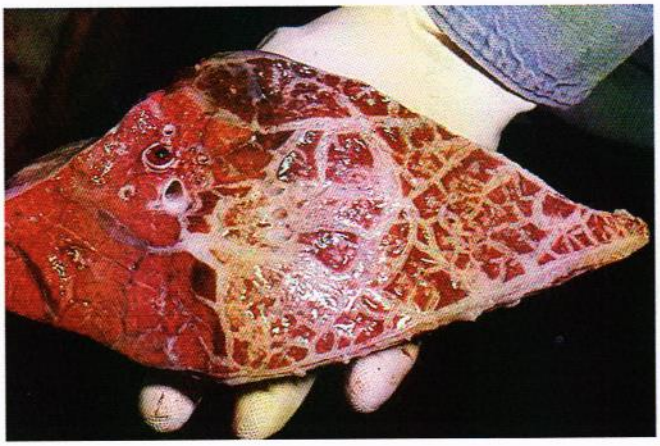


Fig 2a

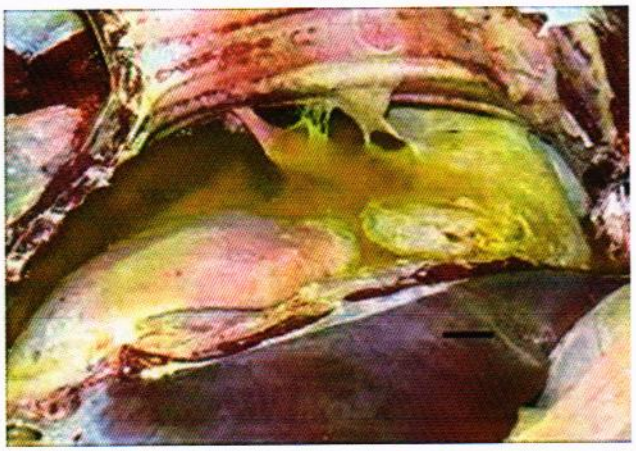


Fig 2b

a) What abnormalities can you see? [5]

b) List four differential diagnoses. [4]

c) What samples would you collect for diagnostic purposes? For each sample, indicate how you would preserve it before dispatch to the lab and the tests you would request. [4]

d) What other questions would you ask this farmer? [4]

e) With the information provided, what is the most likely diagnosis? [1]

f) What would be your advice to the owner? [2]

3. You are presented with a chronically sick dairy cow at a farm close to Windhoek. Upon clinical examination, you observe the following clinical signs: submandibular and brisket oedema, positive jugular pulse and distension, muffled heart sounds, an arched back, and the cow is in poor body condition.

a) What six differential diagnoses would you consider? [6]

b) What is the most likely diagnosis? [1]

c) What diagnostic tests can you perform to confirm your diagnosis? What results do you expect with each test? [8]

d) What would you advise the owner? [4]

4. You're presented with two heifer cows that are shown in the pictures below in Figs 4a and 4b. Study these pictures and answer the questions below:

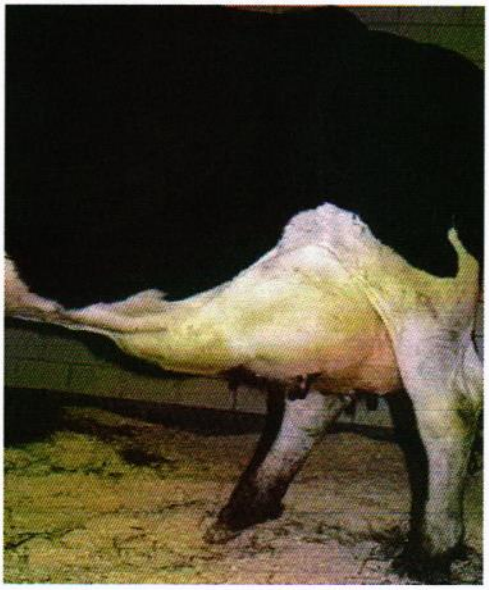


Figure 4a

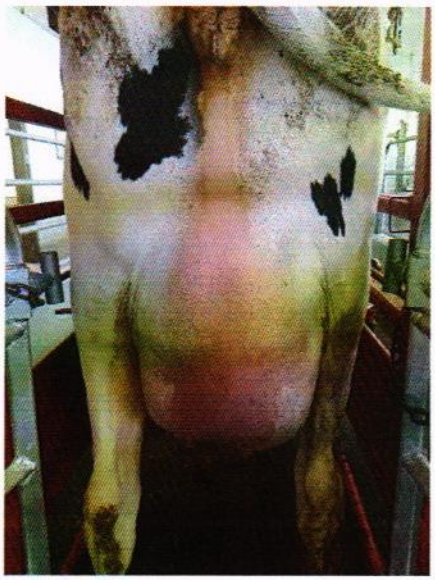


Figure 4b

a) What is the most likely diagnosis? [1]

b) What are the eight possible causes of this disease? [4]

c) List four other differential diagnoses [4]

d) How would you manage these cases? [8]

END OF EXAMINATION