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

Instructions

Read the questions carefully

Answer ALL questions

Write clearly and concisely

Second Opportunity Examination

Section A [75 Marks]

1	In late summer you are presented with six ewes from a group of 95 which had a temperature (up to 42.0°C (107.6°F)) they appear stiff and reluctant to move. They adopt a roached back stance with the neck extended and the head held lowered. Typically, there is oedema of the face and ears, and some sheep are dyspnoeic. Erosions are present on the lips. There is profuse salivation, and a serous to mucopurulent nasal discharge. There is hyperaemia of the coronary band, and around the muzzle and mouth. The tongue is swollen. a. What conditions would you consider? [4] b. What action would you take? [1] c. How is the provisional diagnosis confirmed? [5]	10
2	A farmer complains of severe skin lesions on the muzzle and lips of approximately 25% of 120 6-month-old lambs, 10–14 days after movement on to pastures containing large numbers of thistles. The skin is oedematous with serous exudation and superficial pus accumulation, has become desiccated, forming hard scabs separated by deep fissures. Careful removal of a scab reveals a deep bed of exuberant granulation tissue. Scab material narrowing the nostrils causes dyspnoea with stertor and abdominal breathing in some lambs  Fig 2	15

	a. What conditions would you consider? (Most likely first.) [5] b. What treatments would you administer? [6] c. What preventive measures could be considered for next year? [4]	
3	An 18-month-old homebred ram presents with a large firm subcutaneous swelling below the angle of the right mandible as shown in Figs 3a-3b which has been noted by the farmer for the past 2 weeks. The swelling has not reduced in size despite 4 consecutive days' treatment with procaine penicillin. Inspection reveals no skin lesions in other rams in the group. On Fine needle aspiration a pasty thick yellow-green pus with a foul odour is withdrawn from the lesion.  Fig 3a  Fig 3b  Fig 3c a. What would you do to help this farmer? (Treatment and control measures) [10] b. What is the economic importance of this condition in small ruminant stock? [4]	14

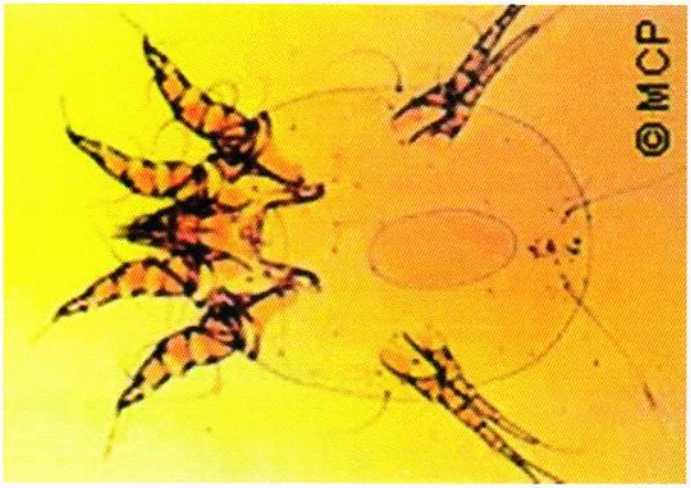
4	1. A sheep farmer from Keetmanshoop State Veterinary District calls you to investigate a skin disease affecting his flock. Ten out of 80 sheep are affected by the disease. You observe the following findings: serous exudate, small erythematous macules on shoulder and neck, with yellow/orange staining of the wool near the skin, yellowish scaly lesions, wool loose and falling out in tufts, extensive alopecia, severe pruritis and small abscesses. a. List differential diagnoses you would consider? [9] You decide to take a skin scraping and make the following observation in Figure 4:  Figure 4 b. What is your diagnosis and aetiology? [2] c. How would you control the disease? [6]	17
5	Namibia recently imported 5 bucks for breeding purposes, the animals were sent to quarantine. One of the recently imported 3-year old buck presented with the following signs while in quarantine: profuse diarrhoea and bottle jaw. It was euthanized and post-mortem lesions observed included mesenteric lymphadenopathy and granulomatous infiltrates of the ileum, jejunum, terminal small intestine, caecum and colon as shown in Figure 5a-5b below:	13



Figure 5a



Fig 5b

a. What is your tentative diagnosis? [1]
b. What is the aetiology of your tentative diagnosis? [1]
c. List five differential diagnoses? [6]
d. What tests would you request to confirm your tentative diagnosis? [4]
e. List two antibody detection tests you would request to screen the rest of the bucks? [2]

6	A sheep farmer calls you to investigate a disease affecting his sheep flock during the rainy season. The farmer lost two weaner lambs so far and three other weaner lambs are presenting with the following findings: temperature ranging from 40,5°C to 41,2°C, respiratory rate ranging from 40 to 80 breaths per minute, congested mucous membranes, frothing and diarrhoea. The dead lambs were opened and presented as shown in the picture below in Figure 6:	6



Figure 6

	a. What is your tentative clinical diagnosis? [1] b. List three (3) predisposing factors that can contribute to the tentative clinical diagnosis mentioned under question a. [3] c. List four (4) possible aetiologies of your tentative clinical diagnosis? [2]	

SECTION B [75 marks]

1. You are a state veterinarian and a farmer requests you to test his cattle for bovine tuberculosis; he intends to export his animals in the future. This farm has a history of positive cases.

   a) Which test would you choose? Justify your answer. [3]
   b) In the interpretation of your results, what are your considerations? [4]
   c) Upon interpretation of your results, using the test you chose in a), when would you consider the test result to be negative, inconclusive or positive, as per the WOAH interpretation? [3]
   d) Suppose two cattle out of a herd of 100 test positive with your test, what steps would you take? [4]

2. It is the month of December, and you are presented with a herd of fifty beef cattle, fifteen of them are showing varying degrees of respiratory signs, and two animals have already died. Upon necropsy of one of the dead animals, you observe the abnormalities shown in the picture below (Fig. 2.1). The farmer informs you that the herd had been moved to a different paddock one week earlier.[15]



Fig. 2.1

a. What is the most likely diagnosis? [2]
b. What is the pathogenesis of this disease? [6]
c. What advice would you give to the owner? [7]

3. You are a state veterinarian based in the northern communal areas of Namibia. There is an outbreak of contagious bovine pleuropneumonia (CBPP) in the area, with high mortalities, resulting in a public outcry. As a result, the regional governors summon you to advise them on how this can be resolved permanently. Write short notes on the presentation which you are going to make. [15]

4. You are presented with a 2-month old dairy calf. Upon examination you notice that the calf is showing signs of respiratory discomfort, to such an extent that you can hear the breathing from a distance. The calf is salivating and has smelly breath.
   a. List four differential diagnoses [4]
   b. How would you confirm each of the differential diagnoses you mentioned above? [4]

5. A feedlot farmer calls you about his weaner cattle which he recently bought from an auction. His complaint is that three out of a batch of ten animals are standing apart from the rest of the herd and have 'runny nostrils'. One animal from the same batch has already died.
    a. Give four differential diagnoses [2]
    b. Outline how you would handle this case?[7]
    c. What are the most likely predisposing factors for this disease condition? [8]
    d. What would you advise the farmer? [6]

END OF EXAMINATION