FACULTY	**Health Sciences and Veterinary Medicine**		
DEPARTMENT	**Production Animal Clinical Studies**		
SUBJECT	**Production Animal Clinical Studies 1**		
SUBJECT CODE	**V3830PP**		
DATE	**June 2024**		
DURATION	**3 hours**	**MARKS**	**150**

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Internal Moderator: Dr I. Kaatura
External Moderator: Dr RJE Stewart

This question paper consists of 7 pages, including this front page.

Instructions

Read the questions carefully
Answer ALL questions
Write clearly and concisely

Second Opportunity Examination

SECTION A
PIG HEALTH AND PRODUCTION [75 marks]

1. Aggression in sows is one of the common challenges experienced in intensive pig production. Outline what measures a pig farmer can implement to minimise this challenge. [4]

2. To ensure maximum productivity at a piggery, a veterinarian must provide a herd health package to a pig farmer. Describe the main components of such a herd health package for a 40-sow unit. [6]

3. Good farrowing management requires that piglets receive colostrum as soon as possible after birth. Outline the timing and importance of providing colostrum to the newly born piglet. [5]

4. As a State Veterinarian you are called by a farmer in Ohangwena Region to investigate mortalities in his free-range pigs where four pigs have died from a herd of nine over the past two days. One of the dead pigs had a temperature of 41.9°C before it died and on post-mortem examination you observe the following as shown in Figure 1:

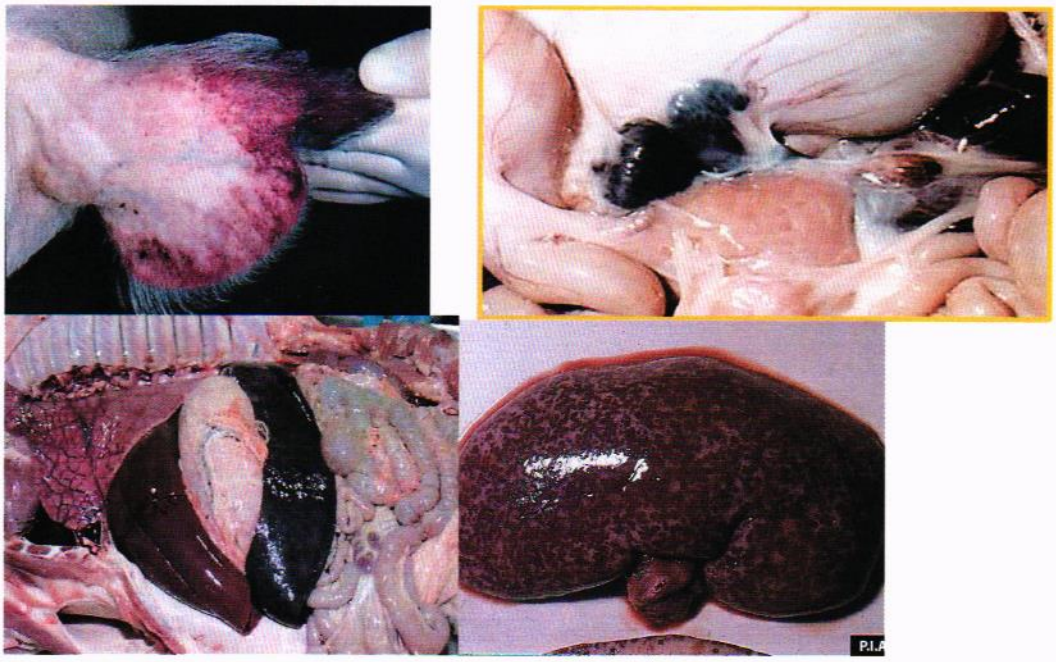


Figure 1

   a. List six differential diagnoses. [6]

   b. What is your tentative diagnosis? [1]

   c. What samples would you collect for laboratory confirmation of your tentative diagnosis? [2]

d. What test would you request for confirmation of your tentative diagnosis? [1]

e. What control measures would you institute against your tentative diagnosis? [5]

5. A pig farmer calls you to investigate lameness affecting more than one limb in her weaners. Three weaners are affected from a herd of 35. The affected weaners show the following signs as shown in Figure 2:

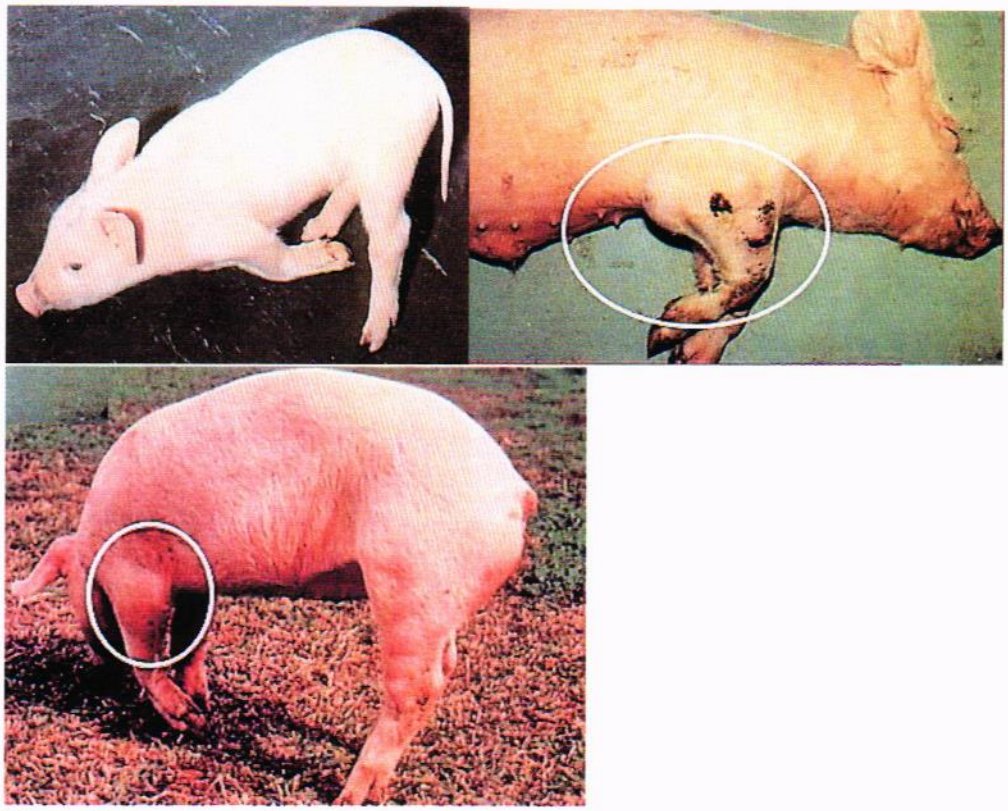


Figure 2

a. What is your clinical diagnosis? [1]

b. List five possible aetiologies of this condition. [5]

c. Describe how the infection could have been acquired. [4]

d. Discuss your treatment approach to this condition. [5]

6. You are presented with weaner pigs showing clinical signs and necropsy findings shown in the pictures in Figure 3 below.

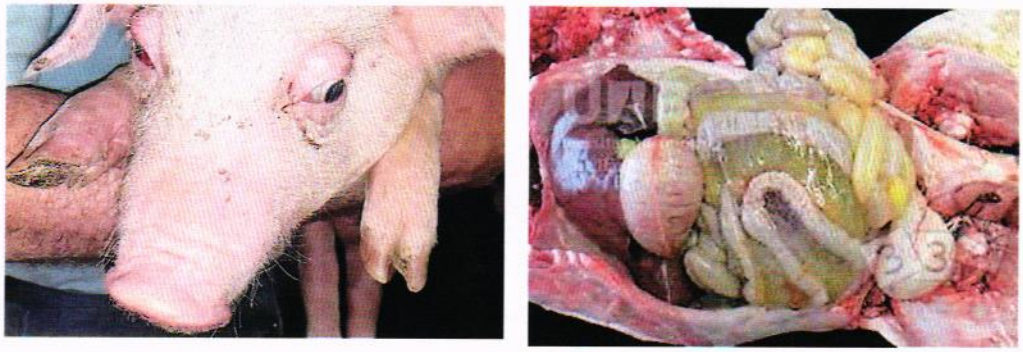


Figure 3

a. Name the most likely diagnosis and aetiology. [1]

b. How would you confirm your diagnosis? [5]

c. How would you handle this case? [6]

7. A pig farmer reports high mortalities in his piglets, which are less than one week old. The predominant clinical signs observed before death include tremors and paddling. Older pigs are only showing mild respiratory signs. However, he also reports that his cattle and sheep in a nearby paddock have been behaving like they were 'crazy' and were extremely itchy, and some had died suddenly.

a. What is the most likely clinical diagnosis? [2]

b. What tests would you request the lab to confirm your diagnosis? For each test, indicate the appropriate samples. [8]

c. How would you control this disease? [2]

8. You are called to a pig farm, and on your visit to the farm, you observe that some of the pigs have deformed muzzles.

a. What is the most likely diagnosis and the causal agent(s)? [1]

b. Give one important differential diagnosis for this condition and the causal agent? [1]

c. What control measures can you recommend to this farmer? [4]

SECTION B
POULTRY HEALTH AND PRODUCTION [75 marks]

1 Explain the role of vaccination in the poultry industry [6] and discuss possible reasons for vaccination failure in poultry production. [6] 12

2 Describe two (2) main poultry production systems used (deep litter system and battery cage system), highlighting three advantages and disadvantages of each system. **15**

3 An upcoming farmer from the NCA has called complaining of decreased feed and water consumption in his flock of chickens. He has noticed that there is decreased growth rate with high percentage of visibly sick birds with severe bloody diarrhea. On opening a few carcasses that he brought along, you notice that the caecum is distended with thickened wall and extensive hemorrhage as shown in the pictures below in Figure 4a-b and you highly suspect coccidiosis. **15**



Fig 4a



Fig 4b

As advice to the farmer, discuss strategies that are available for prevention and control of Avian Coccidiosis [12]

4 You have been presented with 5 carcasses of both chickens and turkeys from a farm in Outjo district with a history of sudden death. Upon further enquiry, the farm manager indicated that some of the affected birds have diarrhoea (white, watery green, mucoid) with increased respiratory rate, cyanosis and mucoid discharge from the mouth. Additional pictures of some of the affected birds have been provided below in Figure 5a-f. **15**

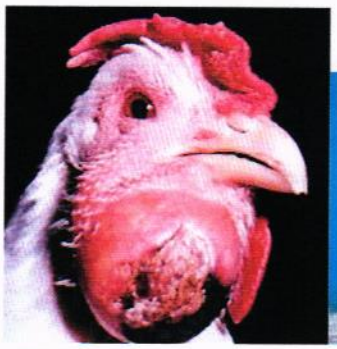


Fig 5a



Fig 5b



Fig 5c

On post mortem you notice the following

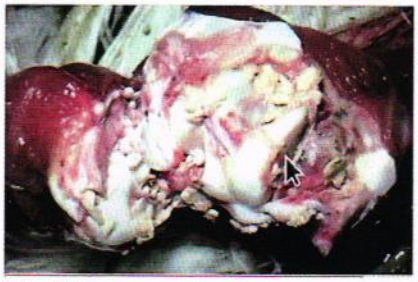


Fig 5d



Fug 5e

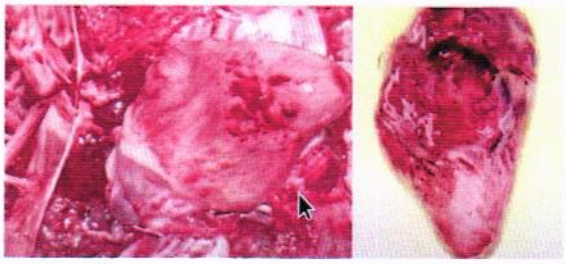


Fig 5f

a. List your differential diagnoses [5]

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

c. What control and prevention measures would you recommend to the affected farmer? [9]

5 You have been called in June by a farmer with more than 2000 broilers at Onyanya in Oshikoto Region complaining of sudden death and has lost more than 30 birds. Upon arriving at the farm, you notice sick birds with cyanotic combs and wattles, distended abdomen, lethargy, excessive panting and laboured breathing (with gurgling sounds). (See pictures below in Figure 6a-b). From the history, you have gathered that these chickens have unlimited access to feed and for security reasons, he leaves the lights continuously on. The workers rarely remove any droppings, the poultry house has high litter ammonia content. **18**



Fig 6a



Fig 6b

a. List any four differential diagnoses. [4]

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

c. Discuss the predisposing factors [6]

d. Write short notes on the treatment attempts that can be made for this condition. [7]

END OF PAPER