FACULTY	**Health Sciences and Veterinary Medicine**		
DEPARTMENT	**Production Animal Clinical Studies**		
SUBJECT	**Production Animal Clinical Studies 1**		
SUBJECT CODE	**V3830PP**		
DATE	**June 2025**		
DURATION	**3 hours**	**MARKS**	**150**

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External Moderator: Dr R Stewart

This question paper consists of 6 pages, including this front page.

Instructions

Read the questions carefully
Answer ALL questions
Write clearly and concisely

Second Opportunity Examination

SECTION A

PORCINE HEALTH AND PRODUCTION [75 marks]

1. Write short notes on the following as regards pig production and health:
   a) In some intensive swine production systems dry sows are kept in stalls. State the reasons for this practice [3] and health problems that may arise [2]?
   b) Health and production implications of overcrowding in a piggery? [5]
   c) Define biosecurity as applied to a pig enterprise. [2]
   d) Describe the three levels of biosecurity giving an example of each? [3]

2. A farmer consults you about his five post-weaning pigs from a herd of 120 showing inappetence. Two pigs died the previous day. On clinical examination you make the following findings: temperature 41.5°C, shifting lameness, depression, incoordination, inability to stand, paddling, opisthotonos, convulsions and nystagmus. A Gram stain of fibrinopurulent material from some joints is shown in Figure 3:

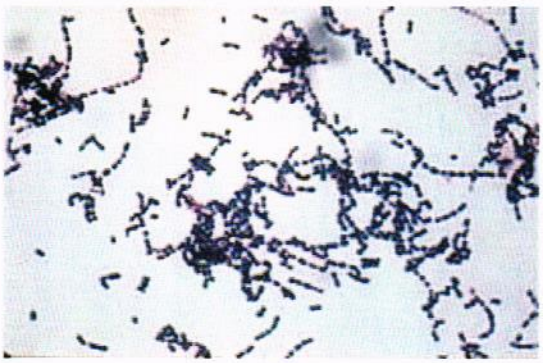


Figure 3

   a) What is your tentative diagnosis and causal agent? [2]
   b) Which are the main predisposing factors? [4]
   c) Which five differential diagnoses of your tentative diagnosis would you consider most likely? [5]
   d) What control approaches would you advise the farmer to implement? [4]

3. An upcoming farmer consults you about problems in his 20-sow piggery establishment. The main complaint is that many of his growing-finishing pigs have respiratory disease signs. In addition, a high number of lungs are being condemned at the local abattoir due to lung lesions. Outline how you would approach this case under the following headings:

   a) Discuss the possible cause(s) of the problem, giving appropriate examples [10]
   b) Samples to be collected and diagnostic tests required for confirmation of your diagnosis [5]
   c) Prevention and control measures [10]

4. You are called out to a piggery where many pigs are showing the following clinical signs: ataxia, tremors, seizures, hyperesthesia, nystagmus, blindness, depression, agitation, anorexia, vomiting, diarrhoea, dehydration, increased thirst, and five pigs have already died. Upon further enquiry, you discover that the borehole had recently broken down and the pigs had started showing clinical signs shortly after it was repaired.

a) What is the most likely diagnosis? [1]
b) Briefly describe the pathogenesis of this condition. [10]
c) How would you confirm your diagnosis? [3]
d) How would you manage these cases? [6]

SECTION B

POULTRY HEALTH AND PRODUCTION [75 marks]

1. Cannibalism is one of the various vices in poultry that poses significant challenges for farmers. While its exact cause remains unclear, multiple factors can trigger outbreaks within a flock.
   a) What are vices? [5]
   b) Discuss the predisposing factors of cannibalism in poultry [9]

2.As the poultry industry moves towards more intensive production methods to meet the needs of a rapidly expanding population, two of the most common housing systems in use today are the deep litter system and the battery cage system. Both systems have distinct advantages and disadvantages, which farmers must weigh based on their specific needs and goals for production

Describe these two main poultry production systems used [2] highlighting three advantages and disadvantages of each system. [12]

3.A commercial poultry farm owner contacts you, a veterinarian specializing in avian health, regarding a sudden onset of respiratory signs in their laying hens. They describe symptoms such as nasal discharge, facial swelling, and decreased egg production. Upon further examination, you notice some birds displaying conjunctivitis and a foul odor emanating from their nasal passages. The owner is concerned about the potential impact on their flock and seeks your expertise to diagnose and manage the situation.



Fig 3a





Fig 3b

   a) Based on the clinical presentation described, what differential diagnoses would you consider? (most likely first) [5]
   b) What prevention and control measures would you suggest to the affected farmer? [5]

4. Compare and contrast the following neoplastic diseases of poultry by completing the following table: [12]

Item	Mareks disease	Lymphoid leucosis	Reticuloendotheliosis
Aetiology	[1]	[1]	[1]
Lymphoma cell type	[1]	[1]	[2]
Control measures	[3]	[1]	[1]

5. A total of 3000 broiler birds are reared in optimum management system at the poultry farm located near Okahandja. The case was reported during the month of February, 2021. A few morbid chicks of 9 -11 days of age were presented for investigation. The clinical signs reported were drop in feed intake, watery diarrhea, weakness, loss of bodyweight, huddling of chicks, labored breathing and mortality. At necropsy, septicemia, pericarditis and perihepatitis, were evident. Fibrinous pericarditis with adhered white pericardial sac was reported. Liver was dark and congested.

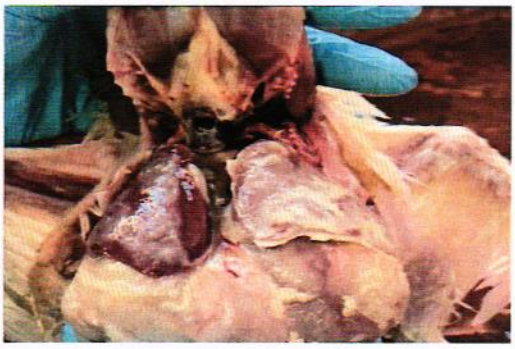


Fig 5a

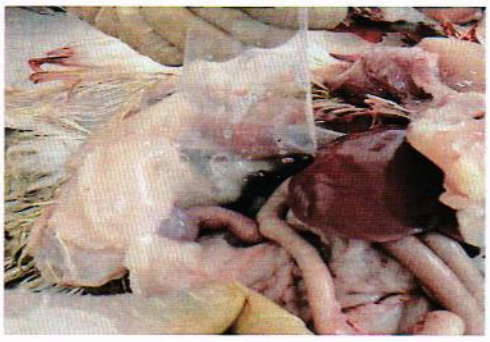


Fig 5b



Fig 5c



Fig 5d

a) What are your differential diagnoses, most likely first? [6]
b) What treatment can be given in this situation? [2]
c) Discuss client advice to prevent further losses at the establishment. [6]

6.

a) What is Fatty Liver Hemorrhagic Syndrome (FLHS)? [2]
b) What are the main causes of FLHS? [5]
c) What treatment would you recommend? [4]

END OF EXAMINATION