



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2013

Medicine of Sheep Paper 1

Perusal time: **Fifteen (15)** minutes

Time allowed: **Two (2)** hours after perusal

Answer **ALL FOUR (4)** questions

Answer **FOUR** questions each worth 30 markstotal 120 marks

Paper 1: Medicine of Sheep

Answer all four (4) questions

1. Discuss the risk factors for the occurrence in a flock of **each** of the following conditions:
 - a) selenium deficiency (7.5 marks)
 - b) foot abscess (7.5 marks)
 - c) urolithiasis (7.5 marks)
 - d) bluetongue. (7.5 marks)

2. Describe the clinical signs and post-mortem findings that would be present in **each** of the following conditions in sheep:
 - a) scrapie (7.5 marks)
 - b) enterotoxaemia (pulpy kidney) (7.5 marks)
 - c) *Campylobacter* abortion (7.5 marks)
 - d) polioencephalomalacia. (7.5 marks)

3. For **each** of the following diseases, outline how you would diagnose the disease in a flock, what control measures you would recommend and why you would make those recommendations:
 - a) ovine Johne's disease (10 marks)
 - b) liver fluke infection (10 marks)
 - c) ovine brucellosis. (10 marks)

4. For **each** of the following diseases, discuss the key economic impacts they have on a sheep flock, including the expected losses per head in dollar terms:
 - a) caseous lymphadenitis (CLA, 'cheesy gland') (10 marks)
 - b) haemonchosis (10 marks)
 - c) pink eye. (10 marks)

End of paper



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2013

Medicine of Sheep

Paper 2

Perusal time: **Fifteen (15)** minutes

Time allowed: **Two (2)** hours after perusal

Answer **ALL FOUR (4)** questions

Answer **FOUR** questions each worth 30 markstotal 120 marks

Paper 2: Medicine of Sheep

Answer all four (4) questions

1. 'Anthelmintic resistance is a necessary consequence of efficient worm control programs.'
 - a) Outline a nematode control program for a sheep farm you are familiar with. Include in your answer the flock structure, any relevant management practices for the flock and details of any procedures recommended in the program. (18 marks)
 - b) Discuss the opening statement in relation to the program you have outlined. (12 marks)

2. Nutrition is an important component of animal health. List the main nutritional requirements for **both** replacement ewe hoggets (from weaning until two years of age) and for adult ewes. (12 marks) Discuss, in relation to an environment you are familiar with, how these requirements are met and how any deficiencies are overcome. (12 marks) Include an estimate of any costs associated with supplementation. (6 marks)

3. Biosecurity is important both to protect individual sheep flocks from diseases and to protect flocks on a regional or national basis.
 - a) Discuss the main biosecurity measures you would recommend to a client in your area, including the reasons for your recommendations. (15 marks)
 - b) Select **three (3)** diseases of sheep exotic to your country. For those diseases, outline the biosecurity measures that you would recommend to prevent them entering your country. (15 marks)

4. A client contacts you concerned with poor performance across his flock. He is particularly concerned about the low lambing percentage and the poor growth in his young sheep. He is also experiencing a higher than normal death rate in both his adult ewes and younger sheep. Describe how you would approach the problem. (12 marks)
List at least **three (3)** likely causes for the problems seen in both the ewes and the younger sheep, and discuss the advice you would give in each case. (18 marks)

End of paper