



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2017

Medicine of Beef Cattle

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

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Paper 1: Medicine of Beef Cattle

Answer all four (4) questions

1. Answer **all** parts of this question:
 - a) List the clinical signs of haemorrhagic septicaemia (endemic to south-east Asia). *(6 marks)*
 - b) Describe the aetiology of nitrate/nitrite toxicity. *(6 marks)*
 - c) Differentiate primary from secondary photosensitisation **and** give an example of a causative agent for **each**. *(6 marks)*
 - d) Discuss **two (2)** techniques for brain removal which ensure the hindbrain is removed intact. *(6 marks)*
 - e) Describe the clinical signs of foot and mouth disease in cattle in the approximate chronological order in which they present. *(6 marks)*
2. List **four (4)** neurological conditions that present most commonly with inappropriate excitation and a normal rectal temperature (you may include emergency animal disease/s) *(4 marks)*. Give your rationale for the diagnostic tools you would use to differentiate between these conditions *(26 marks)*.
3. “Infectious bovine rhinotracheitis is a disease that can be virtually eliminated with an effective vaccine but bovine respiratory disease (BRD) is not.”
Describe the differences between these diseases that explain this observation and the BRD preventative practices that are available. *(30 marks)*

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4. For **each** of the conditions listed below:

- i. infectious bovine keratoconjunctivitis
- ii. seminal vesiculitis in a stud yearling bull
- iii. scours in five-day-old calves
- iv. copper deficiency
- v. liver fluke in weaners.

- Describe **three (3)** preventative options for **each**.
(3 marks each, total 15 marks)
- Justify your preferred option. This could be a single option or a combination of options. *(3 marks each, total 15 marks)*

End of paper



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Paper 2: Medicine of Beef Cattle

Answer all four (4) questions

1. Answer **all** parts of this question:

- a) Draw an annual reproduction timeline to show the major events in the beef cattle reproductive cycle from pre-joining to weaning. Include the timing of routine veterinary and management interventions aimed at maximising production. *(10 marks)*
- b) On this time line also include categories of potential losses that might occur and when (use terms that broadly describe the reproductive loss or limit to reproductive output). *(10 marks)*
- c) For **each** category of losses list **three (3)** differential diagnoses of potential diseases or conditions that could be responsible for those losses. *(10 marks)*

2. “The management of breeders to prevent losses from bovine viral diarrhoea virus (BVDV) varies depending on the proportion of the given management group that are immune to BVDV based on serology.”

Based on this statement, describe a systematic BVDV management plan for an entire herd. *(30 marks)*

3. You are requested by a client to investigate illthrift in a mob of weaners in the temperate zone during late winter/early spring.

Answer **all** parts of this question:

- a) List potential aetiological causes of illthrift in weaners in the temperate zone. *(5 marks)*
- b) Outline how you would investigate this problem. *(20 marks)*
- c) Justify any diagnostic tools you would use to differentiate between the aetiological causes. *(5 marks)*

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4. A high value bull is presented to you showing signs of depression and scouring with sloshing rumen sounds when moved. You find the chute of the wheat silo next to the yards has been pushed open.

Answer **all** parts of this question:

- a) Nominate the most likely diagnosis. (*1 mark*)
- b) Describe the other clinical signs you will measure/evaluate to determine the prognosis. (*9 marks*)
- c) Describe the available treatment options based on the prognosis. (*20 marks*)

End of paper