



Australian College of Veterinary Scientists

## Membership Examination

June 2011

## Medicine of Beef Cattle

### Paper 1

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

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

Answer your choice of any **FOUR (4)** questions from the five questions **ONLY**

All five questions are of equal value

Answer **FOUR** questions each worth 25 marks .....total 100 marks

# Paper 1: Medicine of Beef Cattle

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Answer your choice of any **FOUR (4)** questions from the five questions **ONLY**.

1. Answer **all** subparts of this question:
  - a) List the clinical signs of rinderpest in cattle. *(5 marks each)*
  - b) Briefly discuss the aetiology of enterotoxaemia. *(5 marks each)*
  - c) Describe the treatment of lead poisoning. *(5 marks each)*
  - d) Outline the technique for appropriate collection and submission of samples for bacterial culture and sensitivity. *(5 marks each)*
  - e) List the clinical signs of foot and mouth disease in cattle. *(5 marks each)*
  
2. Describe your investigation of sudden death in a lactating breeder herd. The herd is located in the temperate zone during late winter/early spring and 10% of the herd is dead. *(25 marks)*
  
3. A grazing cow is presented to you showing signs of depression and inappetence. You find the following signs on physical examination:
  - scant, dry, mucous covered faeces in the rectum
  - moderate to severe dehydration
  - a distended and fluid filled rumen
  - a suspected firm mass low in the right flank immediately behind the costal arch
  - thorax normal on auscultation.

List the differential diagnoses for this case. For each differential diagnosis, discuss the implications for the remainder of the mob. *(25 marks)*

**Examination continued on next page**

4. A herd of beef cattle have been returned from long term agistment 1326 km away in southern New South Wales to a property in central Queensland. Five weaners out of a mob of 100 have died overnight after being unloaded. Outline your approach to investigating this problem and discuss the possible causes of the deaths. *(25 marks)*
  
5. After completing ten caesarian sections in one calving season for a beef producer with 100 breeders, you are asked to design a dystocia prevention plan. Identify the key contributors to an increased incidence of dystocia and discuss your practical recommendations to the producer to address these factors. *(25 marks)*

**End of paper**



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### Paper 2

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Answer your choice of any **FOUR (4)** questions from the five questions **ONLY**

All five questions are of equal value

Answer **FOUR** questions each worth 25 marks ..... total 100 marks

# Paper 2: Medicine of Beef Cattle

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Answer your choice of any **FOUR (4)** questions from the five questions **ONLY**.

1. Describe your approach to minimising the effects of gastrointestinal tract parasites on cattle younger than 18 months in your region. Nominate the region at the start of your answer. (25 marks)
  
2. At pregnancy diagnosis in June 2011, the following results were obtained from a south-east Queensland breeder herd. Joining commenced on 1st November 2010 with the bulls removed 31st March 2011. Bulls were joined at a minimum of 3% (three bulls with the cows and one bull with the heifers). Disease and vaccination status were unclear due to a recent change of management. Cows and heifers were joined as separate management groups and heifers were joined to calve as two-year-olds. The results of the pregnancy diagnoses are tabled below:

Months Pregnant	Seven months	Six months	Five months	Four months	Three months	Empty
<b>Cows</b> (Av Wt= 480kg)	35	20	10	5	10	20
<b>Maiden Heifers</b> (Av Wt = 390kg)	8	3	2	2	5	10

Consider the results, and to the best of your ability based on this initial information, develop a report for the producer outlining your recommendations for improving the result in the future.

As a minimum, your report is required to:

- a) benchmark the results with industry standards (5 marks)
- b) prioritise and discuss possible problems, or areas for improvement (10 marks)
- c) consider any further information or investigations which may assist with refining your recommendations. (10 marks)

**Examination continued on next page**

3. With regard to prolapsed vagina in the bovine, answer **all** subparts of this question:
- describe in detail the pathogenesis (10 marks)
  - list risk factors (5 marks)
  - briefly describe treatment options including the practical limitations of each. (10 marks)
4. 'Bovine respiratory disease does not behave as an infectious disease.' Discuss the validity of this statement and describe any potential exceptions to it. (25 marks)
5. A producer contacts you due to poor carcass compliance in a recently slaughtered batch of steers off pasture. The batch of steers is from a single calf drop produced on the property and no cattle are bought in. The poor compliance covers all areas of the specification grid, but most importantly:
- carcass weights both above and below the specification
  - some carcasses with fat depth greater than the specification and some carcasses with fat depth less than the specification
  - some cattle with four permanent incisors rather than the two permanent incisors required to meet specification (these cattle were not overweight)
  - some carcasses with eye muscle area less than the specification
  - bruising in 4% of the carcasses in various locations
  - low pH/dark cutters affecting 3% of the carcasses.

Consider **each** of these areas of poor carcass compliance and outline your recommendations to the producer for addressing these problems both immediately and in the longer term. (25 marks)

**End of paper**