

The University of Melbourne

Semester Two Assessment 2007

School of Agriculture and Food Systems
208 245 ANIMAL MANAGEMENT AND PRODUCTION

Number of Pages: 6 pages

This examination paper can be archived in the Baillieu library.

Exam Duration: Two (2) hours

Reading Time: Fifteen (15) minutes

This paper has ~~three (3)~~ pages

Authorised Materials:

No materials are authorised.

Instructions to Invigilators:

Three (3) script books are required.

The examination paper is to remain in the examination room.

Instructions to Students:

There are two (2) sections.

Answer ALL multiple-choice questions in section A

Answer - THREE (3) questions in section B

Answer each question in a **SEPARATE** script book.

Section A – Multiple Choice

Products & Productivity

- 1) What is a good target for **total feed used (in kg)/pig sold** in a commercial pig production unit?
 - a) ~200kg
 - b) ~300kg
 - c) ~400kg
 - d) ~500kg
 - e) ~600kg

- 2) What is the market required body condition score (CS) for trade and export lambs?
 - a) 2-3
 - b) 2-4
 - c) 3-4
 - d) >3
 - e) none of the above

- 3) Co/by-products contribute to what percentage (%) of the total carcass value for cattle?
 - a) 5%
 - b) 8%
 - c) 10%
 - d) 14%
 - e) 20%

Feeds & Feeding

- 4) Which of the following feeds is most likely to have the highest energy content (MJME/kgDM)?
 - a) grass hay
 - b) maize silage
 - c) cottonseed
 - d) millet
 - e) lucerne hay

- 5) If grain costs \$360/t delivered, what is the approx cost of the grain expressed in cents per kilogram of dry matter (/kgDM)?
 - a) 30c
 - b) 40c
 - c) 45c
 - d) 90c
 - e) none of the above

- 6) How much energy (MJME) does a dairy cow require to produce one litre of milk?
- a) 10MJ
 - b) 6MJ
 - c) 5.5MJ
 - d) 3MJ
 - e) none of the above
- 7) How many litres (L) of water does a dairy cow require to produce one litre of milk in ambient temperatures?
- a) 2-3L
 - b) 4-5L
 - c) 6-7L
 - d) 8-10L
 - e) 10-12L

Housing & environment

- 8) Which of the following is NOT an adaptive measure to deal with cold stress?
- a) shivering
 - b) vaso-constriction
 - c) decreased metabolic rate
 - d) decreased feed intake
 - e) pilo-erection
- 9) What is the lower critical temperature (LCT) of a newborn lamb?
- a) 28°C
 - b) 25°C
 - c) 18°C
 - d) 10°C
 - e) none of the above
- 10) In commercial pig production what is the typical period of time taken to progress from weaning to finishing?
- a) 3 weeks
 - b) 6 weeks
 - c) 8 weeks
 - d) 12 weeks
 - e) 15 weeks
- 11) In traditional egg production systems what is the **minimum** cage floor space allowed per bird?
- a) 250-350cm²
 - b) 350-450cm²
 - c) 450-550cm²
 - d) 550-650cm²
 - e) 750-850cm²

- 12) What is the estimated volume of methane emissions from a cow at pasture?
- a) 300L
 - b) 400L
 - c) 450L
 - d) 500L
 - e) 600L
- 13) Approximately what percentage of body weight (BW) does a dairy cow produce in faeces and urine?
- a) 1-2%
 - b) 3-4%
 - c) 5-6%
 - d) 7-8%
 - e) 10-12%

Breeds & Breeding

- 14) Which of the following is NOT recognised as a published ABV for dairy cows?
- a) milk
 - b) calving ease
 - c) likeability
 - d) somatic cell count (SCC)
 - e) birthweight
- 15) What is the oestrous cycle length of a sow?
- a) 14 days
 - b) 21 days
 - c) 24 days
 - d) 35 days
 - e) none of the above
- 16) What hormone is most important in stimulating superovulation?
- a) prostaglandin (PG)
 - b) progesterone (P4)
 - c) follicle stimulating hormone (FSH)
 - d) oestrogen (E₂)
- 17) What combination of hormones is essential to allow oestrus & ovulation?
- a) ↑E₂ and ↓P4
 - b) ↑E₂ and ↑P4
 - c) ↑E₂ and ↑LH
 - d) ↓E₂ and ↓P4
 - e) ↓E₂ and ↑P4

Health

- 18) Grass tetany (staggers) is caused by?
- a) low magnesium (Mg)
 - b) high nitrogen (N)
 - c) high potassium (K)
 - d) high phosphorus (P)
 - e) **all of the above**
- 19) Which of the following diseases is NOT a clostridial disease?
- a) enterotoxaemia
 - b) mycotic dermatitis
 - c) tetanus
 - d) black disease
 - e) malignant oedema
- 20) 90% of sheep farms in Victoria have resistance to which of the following drenches?
- a) benzimidazole
 - b) levamisole
 - c) ivermectin
 - d) a and b
 - e) all of the above

Section B – Essay Questions

Answer three (3) questions
Each question is worth 20 marks

Industry & Products

Outline the Australian Quality Pork Program, describing the hazards it attempts to control and control measures that can be taken.

Feeds & Feeding

Explain how pasture quality varies over the year and how this can affect wool quality.

Breeds & Breeding

Describe a cross-breeding system for either a prime lamb or a wool sheep enterprise. In choosing sires, list three (3) traits that you would select for in the maternal line and three (3) traits for the terminal line. Justify your answers.

Housing & Environment

Discuss the goals of effluent management in a dairy and ways that this might be achieved.

Animal Health

Explain why ruminants are especially vulnerable to nitrate poisoning. Give examples of situations in which nitrate poisoning could occur and how it can be prevented.