



Australian and New Zealand College of
Veterinary Scientists

Fellowship Examination

June 2022

Animal Welfare Science, Ethics and Law

Paper 1

Perusal time: Twenty **(20)** minutes

Time allowed: **Four (4)** hours after perusal

Answer **ALL TWELVE (12)** questions

Answer all **TWELVE (12)** questions, each worth 20 markstotal 240 marks

Paper 1: Principles of Animal Welfare Science, Ethics and Law

Answer all twelve (12) questions

1. Discuss using an example of a poor welfare situation, the principles of the five freedoms and the five domains. *(20 marks)*
2. Discuss, with examples, the potential scientific criteria that could be used to determine whether a certain animal species is sentient. *(20 marks)*
3. Advocates of gene editing of farm animals have suggested that the technology would convey significant animal health and welfare benefits to future farm animals. Discuss the development of a framework to assess the welfare impacts of gene editing on farm animals. *(20 marks)*
4. With reference to the literature, discuss how stockperson factors can influence animal welfare in an intensive husbandry system of your choice. How might the quality of human animal interactions be improved? *(20 marks)*
5. It has been suggested that an organisation's management and leadership could promote a positive attitude towards the humane care and use of laboratory animals. This has previously been described as an organisation's 'culture of care'. In advising management, discuss the key criteria they might use to establish and evaluate their organisation's performance in this area. *(20 marks)*
6. Outline the hierarchy of animal welfare legislation in your jurisdiction. What are the advantages and disadvantages of this structure from the perspectives of the stakeholders involved? *(20 marks)*

Continued over page

7. Answer all parts of this question (a-b):
- a) What are the issues associated with unneutered and unidentified companion animals, that have triggered calls for legal reform? *(10 marks)*
 - b) Discuss why the performance of cosmetic procedures, such as tail docking, in companion animals is regulated by law? *(10 marks)*
8. Discuss, using examples, the current **shifts** in concepts for the foundations of animal welfare legislation. *(20 marks)*
9. There has been extensive debate regarding the performance of novel surgical procedures in companion animals. Using examples, discuss the major concerns **and** outline the best approach to addressing these concerns using ethical frameworks. *(20 marks)*
10. Discuss to what extent international trade agreements protect welfare. *(20 marks)*
11. Discuss, with examples, the strengths and weaknesses of Animal Ethics Committees in your jurisdiction, with respect to discharging their responsibilities. *(20 marks)*
12. Discuss, using examples, the advantages and limitations of having an explicit link between animal welfare science, and legislation. *(20 marks)*

End of paper



Australian and New Zealand College of
Veterinary Scientists

Fellowship Examination
June 2022

Animal Welfare Science, Ethics and Law
Paper 2

Perusal time: **Twenty (20)** minutes

Time allowed: **Four (4)** hours after perusal

Answer **ALL TWELVE (12)** questions

Answer **ALL TWELVE (12)** questions, each worth 20 marks

total 240 marks

Paper 2: Applied Aspects of Animal Welfare Science, Ethics and Law

Answer all twelve (12) questions

1. You have been approached by a company that has formulated a new chemical killing agent for managing pest species. They ask you to devise a study to assess the welfare impact of this new agent. Discuss the considerations in planning this study **and** provide a brief outline of the outcomes that could be used to measure welfare impact. *(20 marks)*
2. Discuss the possible regulatory considerations in your jurisdiction for approval of an experimental procedure that investigates the potential reanimation of brains removed from recently slaughtered pigs. *(20 marks)*
3. Make an argument for the **three (3)** most important types of environmental enrichment that might be provided for laboratory mice. How might their impacts on welfare be assessed? *(20 marks)*
4. The veterinary ethics literature defines a number of ethical approaches impacting the way wild animals are perceived and treated by humans. Discuss **three (3)** of these approaches in relation to wildlife management and conservation. *(20 marks)*
5. Discuss how the welfare of large felids housed in a zoo might be assessed. Upon what principles is the approach described based, and what are its limitations and advantages? *(20 marks)*
6. Discuss the welfare impacts of typical slaughter practices on production animals, with reference to the scientific literature. *(20 marks)*

Continued over page

7. You have just been engaged as the veterinarian for a lamb feedlot enterprise. Outline a plan to assess the overall welfare status of the flock. What are the important considerations in this assessment? *(20 marks)*

8. The local animal welfare organisation in a medium-sized rural city has been actively undertaking a trap, neuter, release program with colonies of "feral" or "un-owned" cats in the city. The organisation is now in conflict with the local authorities who are developing laws to outlaw releasing any cats into the environment in support of a cat constraint program in the jurisdiction. Discuss the animal welfare and ethical issues needing consideration in mediating between the authorities and the 'welfare' group. *(20 marks)*

9. Discuss possible conflicts between the interests of the human riders and their horses when training and competing in show jumping events. In your discussion, consider the animal welfare considerations involved, and how these could be identified and mitigated against. *(20 marks)*

10. You have been engaged by an Agricultural High School to develop a discussion paper seeking approval for the widespread use of animals as part of the educational curriculum. Discuss the range of possible risks in such a proposal and make an argument to justify such animal use. *(20 marks)*

11. Using the example of intensively-housed pigs, discuss where there might be some perceived conflicts between government and industry policies on animal welfare standards, **and** propose some suggestions to resolve these conflicts. *(20 marks)*

12. Using examples, discuss the role of social licence in farm animal welfare standards. *(20 marks)*

End of paper