FACULTY	**HEALTH SCIENCES AND VETERINARY MEDICINE**		
SCHOOL	**SCHOOL OF VETERINARY MEDICINE**		
DEPARTMENT	**VETERINARY PRE-CLINICAL STUDIES**		
SUBJECT	**ANIMAL WELFARE**		
SUBJECT CODE	**V3622EW**		
DATE	**4 NOVEMBER 2024**		
DURATION	**2 HOURS**	**MARKS**	**100**

SECOND OPPORTUNITY EXAMINATION MEMORANDUM

Examiners: **Dr B. Y. Kaurivi**
Internal Moderator: **Prof O. Madzingira**
External Moderator: **Prof D. Pfukenyi**

This question paper consists of three **(3)** pages including this front page.
Additional materials to be supplied: **NONE**

Instructions

This question paper consists of fifteen **(15)** questions. Answer all questions.

1a	The most important animal welfare frameworks which are currently used were developed over a period of many years. What is the collective importance of these frameworks? (1 mark). Explain why one framework may not be "enough"? (3 marks)	4
1b	Why does "Domain 5" (Mental State) of animal welfare cumulates from the first 4 domains (1-4)?	3
1c	Explain why animal welfare science is considered a "mandated science".	1
2	Which special physiological states could affect the need for water?	3
3	Discus why Namibia is able to trade livestock and livestock products to international markets despite having an outdated animal protection legislation.	4
4	State the main considerations that a Namibian producer adhering to the FAN Meat standards would take with respect to the dehorning of calves.	2
5	Outline five (5) main responsibilities of Animal Welfare Focal Points under the guidance of the World Organisation of Animal Health (WOAH).	5
6a.	The improvement of scientific research involves ethics. Explain the interrelation between these two topics.	3
6b	What is meant by "environment-centred ethics"?	3
6c	Which ethical theory fits the flowing: i. costs and benefits to humans ii. consider animal suffering too	2
7a	As a veterinarian associated with a particular farmer, you are expected to build in welfare assessments into your regular service to the farmer. Name the four-stage process of conducting a welfare assessment.	4
7b	Explain why Namibia should not just adopt any animal welfare assessment protocol that was developed elsewhere?	2
8a	What is the main physiological reason why meat derived from stressed slaughter animals can be of poor quality in terms of meat-eating quality, shelf-life and meat visual appeal in terms of colour?	2
8b	Outline five (5) examples of indices/measures of **metabolic responses** (including appropriate hormones) to stress in animals.	5
9a	Identify the farming systems shown below (i and ii) (2 marks) and state how they promote (2 marks) and compromise animal welfare (4 marks).	8

	i.  ii. 	
9b	Which animal-based criteria (or measurables) could be associated with painful management procedures that will indicate poor welfare.	5
10a	Outline the three-point framework that defines and categorise a true animal disaster. Use appropriate examples where necessary.	6
10b	In a Namibian context, name examples of what should be included in a national animal disaster management plan.	5
11	Why is it necessary for a veterinary professional working in a small animal practice to have adequate knowledge of animal welfare concepts? Give four (4) critical points.	4
12	Explain the following terms used during the slaughtering process of cattle. i. "stun to stick" interval (3 marks) ii. 'pithing' the animal (2 marks)	5
13a	Outline any six (6) strategies for improving animal welfare during the transportation of cattle.	6
13b	The transportation of farm animals with injuries such as a broken leg to a slaughterhouse is not recommended. Suggest ways to handle these animals, if they must be transported to an abattoir.	3
14a	An enrichment of life is a growing concern for working animals. Outline specific enrichment activities you would suggest to donkey owners.	5
14b	Skin injuries can be a serious concern for working animals. Suggest changes that working donkeys' owners can implement to reduce skin injuries.	4
15a	Comment on why veterinarians prefer using the term 'euthanasia 'than "mercy killing.	2
15b	Under what circumstances might veterinarians be required to humanely kill individual animals?	4
	THE END	