

0172-504 March 2018

Level 3 Advanced Technical Certificate in Equine Management

Level 3 Equine Management – Theory Exam (1)



Q1	State the considerations when assessing the water provision for horses that are turned out. (4 marks)	
A1	1 mark each, up to 4 marks Water availability: <ul style="list-style-type: none">• there needs to be enough water for the number of horses in the field [1]• fresh/clean water must be available at all times [1]• the water must be free from contamination [1]• water containers must be free from sharp edges [1]• they must also be easy to clean [1]• if using a natural water source the horse must be able to access safely [1]	

Q2	Explain three benefits for each of the following management systems with regard to maintaining the health and welfare of horses. a) Stabled. (3 marks) b) Grass kept. (3 marks)	
2a	1 mark each, up to 3 marks Stabled <ul style="list-style-type: none">• Feeding management is easier in the stable compared to the field [1] allowing horse's weight/condition to be monitored more closely and feed can be adjusted accordingly. [1]• Health checking is easier in the stable environment and doesn't involve catching the horse [1]• Preventing injuries is easier in the stable kept horse. [1]• Medication can be administered more easily in the stable kept horse. [1]• Hygiene/appearance can be monitored more efficiently in the stable kept horse. [1]	

2b	<p>1 mark each, up to 3 marks</p> <p>Grass Kept</p> <ul style="list-style-type: none"> • Horses can undertake more natural behaviours in the field than in the stable [1] • Allowing natural behaviours is beneficial to the horse's health and welfare as it reduces the risk of abnormal behaviour [1] and the development of stereotypical behaviours. [1] • Socialising is easier with field kept horses and because they are a herd animal and they need access to company otherwise they can become stressed. [1] 	
-----------	---	--

Q3	State four of the symptoms found in a horse with a heavy worm burden. (4 marks)	
3	<p>1 mark each, up to 4 marks</p> <p>The horse;</p> <ul style="list-style-type: none"> • lost weight/condition [1] • reduced appetite [1] • Diarrhoea [1] • low energy/depression [1] • colic [1] • swelling of the legs [1] • swelling of the stomach. [1] • swelling of the sheath. [1] • pot belly [1] • dull coat. [1] • mouths sores. [1] • stomach ulcers [1] 	

Q4	Explain how artificially acquired immunity enables the horse to fight infection. (3 marks)	
4	<p>1 mark each, up to 3 marks</p> <p>Antigen in vaccinations [1] causes antibody production (in the horse) [1] building immunity in readiness to help to fight infection. [1]</p>	

Q5	Give an example of a situation that explains when euthanasia is in the horse's best interests. (3 marks)	
5	<p>up to 3 marks available for an appropriate answer.</p> <p>There must be a specific explanation with the example in order to gain marks.</p> <ul style="list-style-type: none"> • Suitable example [1] • Painful/distressing symptoms/condition described [1] • No cure/medication / unlikely to recover [1] 	<p>For example: a veteran horse of 25 years old has suffered from chronic laminitis for a number of years due to Cushing's disease. The horse is suffering from a flare up of acute laminitis which has caused sinker in the feet. [1] It is unable to stand, is generally unwell and has a very strong</p>

		digital pulse. [1] The likelihood of recovery in this situation is very poor, It would be kinder to put the horse to sleep on welfare grounds in this case. [1]
--	--	---

Q6	Describe the preventative care measures that should be taken for a horse that suffers from recurring Equine Rhabdomyolysis. (4 marks)	
6	<p>1 mark for each point , up to 4 marks</p> <p>Preventative care measures</p> <ul style="list-style-type: none"> • a regular exercise programme with limited periods of box rest [1] • daily management with a strict routine and limiting stress [1] • warm up gradually and very thoroughly [1] • reduce grain and increase fat in the diet [1] • ensuing electrolyte balances are correct (in the horse's diet/management) [1] • ensuing adequate fibre intake [1] 	Accept any other appropriate answer.

Q7	State what adjustment to the diet would need to be made from maintenance levels and explain why, for	
	a) an obese horse	(2 marks)
	b) a horse in medium work	(2 marks)
	c) a pregnant mare in the third trimester.	(2 marks)
7a	<p>1 mark for each point, up to 2 marks</p> <p>An obese horse</p> <p>To below maintenance levels [1] to consume less calories to ensure weight loss [1]</p>	Candidates will be expected to correctly identify if the adjustments needed are above or below maintenance level and explain the reasons for the adjustments.
7b	<p>1 mark for each point, up to 2 marks</p> <p>A horse in medium work</p> <p>To above maintenance [1] to ensure enough calories/energy to work and to maintain weight. [1]</p>	Candidates will be expected to correctly identify if the adjustments needed are above or below maintenance level and explain the reasons for the adjustments.
7c	<p>1 mark for each point, up to 2 marks</p> <p>To above maintenance requirements [1] to ensure enough nutrition/calories for the growing foetus. [1]</p>	Candidates will be expected to correctly identify if the adjustments needed are above or below maintenance level and explain the reasons for the adjustments.

Q8	Explain the importance of palatability when planning a horse's diet. (2 marks)
-----------	--

8	<p>1 mark for each point, up to 2 marks</p> <p>The higher the palatability of a feed the more likely a horse is to eat the feed [1] this in turn will allow the horse to gain more nutrients in its diet. [1] This is important for weight gain. [1] Therefore less waste which means less cost for the owner. [1]</p>	
----------	---	--

Q9	Using scientific terminology, state the three different types of carbohydrates.	(3 marks)
9	<p>1 mark for each correct answer, up to 3 marks</p> <ul style="list-style-type: none"> • Monosaccharide [1] • Disaccharide [1] • Poly saccharide [1] 	<p>Do <u>not</u> accept:</p> <ul style="list-style-type: none"> • sugar • starch • fibre

Q10	State where in the horse's digestive system the following nutrients are absorbed.	
	a) Fibre.	(1 mark)
	b) Fats.	(1 mark)
	c) Proteins.	(1 mark)
10a	<p>1 mark for a correct answer</p> <p>Fibre – hind gut / large intestine [1]</p>	
10b	<p>1 mark for a correct answer</p> <p>Fats – small intestine [1]</p>	
10c	<p>1 mark for a correct answer</p> <p>Protein – stomach/small intestine [1]</p>	

Q11	Describe the effects of evolution on each of the following anatomical adaptations in the horse.	
	a) Limbs.	(1 mark)
	b) Neck.	(1 mark)
	c) Size.	(1 mark)
11a	<p>1 mark for a correct answer</p> <p>Limbs – have become longer to enable the horse to flee predators faster. [1]</p>	
11b	<p>1 mark for a correct answer</p> <p>Neck – has become longer to allow for grazing of the floor. [1]</p>	
11c	<p>1 mark for a correct answer</p> <p>Size – horses have grown larger too be able to run faster. [1]</p>	

Q12	Explain why a stabled horse might start to box walk.	(4 marks)
------------	--	-----------

12	<p>1 mark for each correct point in the explanation, up to 4 marks</p> <p>Evolved to move great distances daily [1] gets stressed/bored when confined (can't expend enough energy) [1] box walking is an attempt to carry out natural movement in the confined space [1].</p>	<p>Accept any other appropriate answer.</p>
----	--	--

Q13	<p>Using a specific example, explain how environmental enrichment improves a stabled horse's behaviour and temperament. (3 marks)</p>	
13	<p>up to 3 marks for an appropriate example with related explanation.</p> <ul style="list-style-type: none"> • Statement of suitable issue with stabled horse [1] • Example of appropriate enrichment [1] • How it improves behaviour [1] 	<p>Example:</p> <p>Mirror – horses spend a lot of time in the stable which can lead to boredom. [1] Putting a mirror in the horse's stable provides it with a way to reduce boredom as it mimics having a companion. [1] The horse can interact with the mirror which has been shown to reduce stress in the stabled horse. [1]</p>

Q14	<p>Discuss how the diet and feeding routine of a horse in the domestic environment can influence its health and welfare. (12 marks)</p>	
14	<p>Band 1: 1 – 4 marks</p> <p>Basic discussion with minimal reference to how the diet of the horse can influence the horse's health and welfare. Diet/feeding routines are described with minimal detail of impacts on the horse. To access the higher marks in the band the response will include a wider range of aspects of the diet and will attempt to show how these influence/impact the horse's health and welfare.</p> <p>Band 2: 5 – 8 marks</p> <p>A clear discussion to the way the diet and feeding routine influences the horse's health and welfare. Diet/feeding routines are described with some detail and linked to health and welfare. To access higher marks in the band, the response will show some justification of the impact/influence of the diet and feeding routine on the horse's health and welfare.</p> <p>Band 3: 9 – 12 marks</p> <p>Detailed discussion on how the diet and feeding routine can influence the health and welfare of the horse. The diet/feeding routines are described comprehensively with detail of how they can have a positive or negative influence on the horse. To access the higher marks in the band, the response will fully justify impacts, higher level students may link this to the five animal needs.</p> <p>For no awardable content, award 0 marks</p>	<p>Indicative content:</p> <ul style="list-style-type: none"> • The five animal needs. • The importance of routine for horse health • Rules of feeding – link to disorders/diseases • Forage requirements – linked to digestive physiology • Evolution of the horse and changes in psychology and physiology • Link between boredom/lack of forage and stereotypic behaviours • Nutrient needs and the impact of over or under feeding on health • Unnatural stable environment • Nutrient requirements for a balanced diet • Natural vs domestic environment.