

0172-506 March 2018

Level 3 Advanced Technical Certificate in Equine Management

Level 3 Equine Management – Theory Exam (2)



Q1	State the four digestive processes that occur within the equine digestive system. (4 marks)
1	1 mark each, up to 4 marks <ul style="list-style-type: none">• mechanical [1]• enzymatic [1]• chemical [1]• microbial or hind gut fermentation [1]

Q2	Explain the role palatability has in selecting the horse's diet. (4 marks)
2	1 mark for each point, up to 4 marks <ul style="list-style-type: none">• Feed not palatable = horse not eating (or not eating enough) [1]• Not eating = deficit in calories = weight loss = poor condition, weakness, inability to work as intended, stress behaviours [1]• Not eating = deficit in nutrients= ill health = poor condition, weakness, inability to work as intended, stress behaviours [1]• Not eating = food wastage = not cost effective [1]• Domestication = not grazing or foraging as designed = change to diet = inclusion of concentrate feeds = need to eat what is provided for them [1]

Q3	Explain how the energy requirements for a horse in medium level workload can be provided through diet. (4 marks)
3	1 mark for each point, up to 4 marks <p>Haylage could be provided due to its higher nutritional value [1] meaning higher levels of energy [1] and protein for the horse [1] good quality forage should be supplied to provide appropriate fuel [1]. Mixes that are nutrient dense provide high levels of energy, oil and protein [1] meaning slow release energy [1] allowing the horse to carry out work at medium level intensity [1] low starch performance feeds help maintain a calm working temperament [1]. Fuel for work/activity reduces the chance of fatigue [1] 60/40 ratio [1]</p>

Q4	State one feedstuff that contains high levels of a) lipids (1 mark)
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	b) minerals.	(1 mark)
4a	1 mark for a correct foodstuff Lipids – Corn oil, soybean oil, flaxseed oil, fish oil, sunflower oil, rice bran, cotton seed, cereal grains (oats, barley, maize, wheat, rice)	
4b	1 mark for a correct foodstuff Minerals – forage, pastures, mineral blocks, salt lick, balancers, cereals, soil	

Q5	Explain how water helps to maintain health and wellbeing in the horse.	(4 marks)
5	1 mark for each point, up to 4 marks Water acts as a medium for carrying substances in blood, tissue, fluids, urine and sweat through and out of the body [1]. Allows movement of body molecules and blood formation [1] and keeps tissues in the body moist [1] Helps temperature regulation by diverting blood away from the body surfaces in cold ambient temperatures [1] which helps internal organs to stay warm. Aids in digestion, absorption, and utilisation of nutrients [1] and helps removal of waste products via the kidneys [1].	

Q6	State four aspects to consider when developing a feeding plan for a horse that lives in a field.	(4 marks)
6	1 mark each, up to 4 marks <ul style="list-style-type: none"> • type/amount of pasture in the field [1] • amount of extra feed ration [1] • nutritional value of the grass [1] • method of feeding hay/concentrate feeds if needed [1] • costs [1] • workload of the horse [1] • other horses living in the field [1] 	

Q7	State two factors that influence the calculation of a ration formulation for a horse.	(2 marks)
7	1 mark each, up to 2 marks <ul style="list-style-type: none"> • current weight [1] • workload/workload intensity [1] • life stage [1] • situation for the horse (stabled, box rest, working, lactating, growing etc.) [1] 	

Q8	A horse is currently recuperating on box rest after a tendon injury. State how and explain why its diet must be adjusted. (3 marks)	
8	<p>1 mark each, up to 3 marks</p> <p>The horse must be provided with ad lib forage and fresh water [1] to ensure the horse's gut remains active [1]</p> <p>Ensure the horse's psychological needs are met [1] by allowing the horse to graze on hay/haylage [1]</p> <p>Reduce the energy intake through concentrate feeds [1] to reduce stereotypical and undesirable behaviours when energy intake is too high [1]</p> <p>Soaking forage can reduce calorie intake [1] to avoid the horse putting on weight [1]</p> <p>Increase protein intake [1] to repair tissue [1] to help prevent further injury occurring [1].</p>	

Q9	Describe four ways artificial aids influence the horse's way of going when carrying out lateral work. (4 marks)	
9	<p>1 mark each, up to 4 marks</p> <p>Emphasises and backs up the leg aid of the rider [1]</p> <p>Enhances the horse's ability to step under and across during school movements [1]</p> <p>The horse's reaction time is improved allowing a clear transition or change in movement [1]</p> <p>Improves the elevation of the horse on the whole [1]</p>	

Q10	State four common contact issues seen when riding horses on the flat. (4 marks)	
10	<p>1 mark each, up to 4 marks</p> <ul style="list-style-type: none"> • Above the bit [1] • Over-bent [1] • On the forehand [1] • Tension [1] • Evasion [1] 	

Q11	Describe how the 'scales of training' can improve a horse's way of going. (6 marks)	
11	<p>1 mark for each category of explanation, up to 6 marks</p> <p>Rhythm will improve the regularity of the beat within the gait [1].</p> <p>Suppleness will allow the horse to work in a rounded shape without resistance [1].</p> <p>Contact will improve the forward energy into both hands [1].</p> <p>Impulsion will maintain the energy [1] and allow the hind legs to go further under the body enabling the horse to spring forwards easily [1].</p> <p>Straightness within every movement, the hind legs will follow in the tracks the front ones have created [1].</p> <p>Collection will allow power, more weight distributed across the hind legs [1] and more elevation [1].</p>	

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Q12	Explain how fitness and nutrition is of high importance in a competition rider.	(3 marks)
12	<p>1 mark each, up to 3 marks</p> <ul style="list-style-type: none"> • helps to prevent injuries by increasing circulation [1] and body temperature [1] • high energy foods before exercise will provide glucose to the muscles [1] which prevents fatigue [1] • it is important to drink plenty of water before exercise to keep muscles hydrated [1] the unfit rider will be more prone to fatigue [1] and may lack general fitness this can mean a reduced impact on horse performance [1] • correct nutrition and fitness will ensure the rider can perform to their best abilities which will positively impact on the horse's performance [1] 	

Q13	State four exercises or school movements that should improve a horse's suppleness when riding on the flat.	(4 marks)
13	<p>1 mark each, up to 4 marks</p> <ul style="list-style-type: none"> • Leg yield [1] • Shoulder fore [1] • Circles/spirals [1] • Serpentine [1] • Loops [1] 	

Q14	<p>An owner is experiencing behavioural issues with their horse's performance whilst preparing for a British Eventing (BE) competition (BE100).</p> <p>Discuss how behavioural issues, physiological constraints and diet may be a cause for the horse's lack of performance.</p>	(12 marks)
14	<p>Band 1: 1 – 4 marks Basic discussion with minimal reference to how common issues and physiological constraints can be linked to the horse's diet. Diet of the horse described with minimal detail of impacts on the preparation for competition. To access the higher marks in the band, the response will include reference to feeding routines and/or physiological constraints.</p> <p>Band 2: 5 – 8 marks A clear discussion to the way common issues and physiological constraints can be linked to the horse's diet. Diet/feeding routines are described with some detail and linked to common issues. To access higher marks in the band, the response will show some justification of the impact of the diet and feeding routine when preparing a horse for competition.</p> <p>Band 3: 9 – 12 marks</p>	<p>Indicative content:</p> <ul style="list-style-type: none"> • Functions of the major nutrients • Suitability of different feed types • Nutritional content • Feeding plans • Dietary requirements • Conformation • Common issues • Scales of training

Detailed discussion on how the common issues and physiological constraints can be linked to the horse's diet. The diet/feeding routines, common issues and physiological constraints are described comprehensively with detail of how it can have a positive or negative influence on the horse during preparation for competition. To access the higher marks in the band, the response will fully justify the impacts – higher level candidates may link this to the five animal needs.

For **no** awardable content, award 0 marks.