

0172-37 Level 3 Advanced Technical Extended Diploma in Equine Management (720)

0172-006/506 Level 3 Equine Management – Theory exam (2)

March 2022 Mark Scheme

Q no.	Acceptable answer(s)	Guidance	Max mks	Ref
Q1	<p>a) 1 mark each for any of the following, to a maximum of 3 marks:</p> <ul style="list-style-type: none"> • Sodium • Calcium • Phosphorus • Magnesium <p>b) 1 mark each for any of the following, to a maximum of 2 marks:</p> <ul style="list-style-type: none"> • Vitamin A • Vitamin B • Vitamin B12 • Vitamin C • Vitamin D <p>Any other suitable answer</p>	<p>a) Accept any macro or micro minerals</p> <p>b) Accept any fat or water-soluble vitamin.</p>	5	355 2.1 A01
Q2	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <ul style="list-style-type: none"> • Mastication/chewing [1] mouth [1] • Deglutition/swallowing [1] oesophagus [1] • Peristalsis/intestinal movements [1] along the digestive tract/intestines/stomach [1] 	Do not accept teeth	4	355 1.3 A01
Q3	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <p>Carbon [1] Hydrogen [1] Oxygen [1]</p>		3	355 1.1 A01
Q4	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <p>Starch is digested and absorbed through an enzymatic process [1] which is a process of hydrolysis/adding water [1]. Starch is broken down primarily in the horse's small intestine [1] by amylase [1].</p>		3	355 1.3 A02

	Large molecules are broken down into smaller molecules [1] The smaller molecules are absorbed across the intestinal wall [1] into the blood stream [1]			
Q5	<p>1 mark each for any of the following, to a maximum of 2 marks per question part:</p> <p>Energy – Horses in hard work will burn more energy [1] The energy content of the diet must increase to meet these needs of hard work [1] to maintain the horse’s weight [1] and ability for level of performance [1]. Horses in hard work will have to have grains/concentrates added to the diet to provide adequate levels of energy [1].</p> <p>Protein – Required to produce body tissue/muscle [1] increased body tissue/muscle will develop through hard work [1]. Also required for the repair of body tissue/muscle [1] In hard work a higher level of repair is required [1]. This can also be used as an energy source [1]. The quality of the protein source is more important than the quantity [1] Dietary protein provides essential amino acids [1]</p>	Accept growth [1] and repair [1]	4	355 2.1 A02
Q6	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <p>Keeping the horse’s gut moving is vital during a period of box rest to avoid colic [1]. The horse’s gut is stimulated naturally by the horses walking around [1], forage could be provided in a variety of locations within the stable to encourage movement [1] so the horse should have access to ad lib forage [1] to mimic a natural diet [1]. The horse must have free access to plenty of fresh water [1] to support healthy gut movement [1] and water intake should be monitored [1]. Hard feed should be appropriate to the horse’s needs [1] and should be fed in small wet feeds [1] to provide additional nutrients that may be lacking in the forage [1]. Environmental enrichment should be provided to stimulate the horse [1].</p>	<p>Accept:</p> <ul style="list-style-type: none"> • Make changes to the diet gradually • Protein for tissue repair 	4	355 2.2 3.2 A02
Q7	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <p>Palatability is the appeal/taste of the food [1] It can influence the diet because if the horse does not find what it is being fed palatable the horse will not eat the food [1] therefore the horse will not receive the required nutrients [1] or supplements [1] and the horse would lose weight/condition [1].</p> <p>Digestibility is the percentage of the food taken in and absorbed by the body [1] It can influence the amount of nutrients that are absorbed by the</p>	<p>A maximum of 3 marks available if answer only includes either palatability or digestibility but not both.</p> <p>Accept:</p> <ul style="list-style-type: none"> • Money is wasted if food is not eaten • Could result in nutritional deficiencies 	4	355 2.1 A02

	horse [1] and are therefore available for performance [1]. A feed ration with higher digestibility provides more energy [1] and would be more appropriate for the horse preparing for competition [1]. Lower digestibility feed will result in horse losing energy/weight [1]			
Q8	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <ul style="list-style-type: none"> • Above the bit [1] • Over-bent [1] • On the forehead [1] • Evasion [1] • Tension [1] • Hollow [1] • Stiffening [1] <p>Any other suitable answer</p>	<p>Accept:</p> <ul style="list-style-type: none"> • Heavy • Uneven • Unbalanced • Resisting • Not going forward • Pain issues • Rider error – uneven rein contact, too tight, too loose • Seesaw/ swing on horse's mouth • Hard in the mouth • Rider using the rein to balance themselves • Wrong bit 	4	358 2.1 A01
Q9	<p>1 mark each for any of the following, to a maximum of 6 marks:</p> <p>Fitness Riding is a sport and requires a level of fitness [1] If rider fitness is not taken into consideration there is a much greater chance of injury [1] Fitness develops core strength [1] and stamina [1] flexibility [1] which improves riding ability [1] less chance of fatigue (which leads to errors) [1]</p> <p>Nutrition: Riding requires use of lots of energy [1] It is important for the rider to eat a nutritious, balanced diet to provide enough fuel for the body / correct nutrients for body function [1] Before exercise high carbohydrate foods will be broken down quickly and provide glucose to the muscles [1] It is important to drink plenty of water before exercise to keep muscles hydrated [1] Good hydration and a well-balanced diet will help reduce the likelihood of cramp and fatigue [1] The rider must maintain their bodyweight [1]</p>	<p>If only fitness or nutrition discussed (but not both) maximum of 5 marks available.</p> <p>Accept answers that correctly refer to the role of specific nutrients eg protein for muscle build/repair</p>	6	358 1.3 A02
Q10	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <p>large circles/circles [1] transitions [1] ground poles/ pole work [1] figure of eight [1]</p>	<p>Accept</p> <ul style="list-style-type: none"> • Shallow loops 	4	358 3.2 A01

	<p>leg yielding [1] serpentine [1]</p> <p>Any other suitable answer</p>			
Q11	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <p>Maintaining the trot until about 3 strides from the fence [1] and then allow the canter to come naturally [1]</p> <p>Set a placing pole in front of the jump [1]. This will improve balance and rhythm [1]</p> <p>Gymnastic jumping [1] The horse realises it must balance up to get through all elements of the exercise [1]</p> <p>Canter poles [1] these will slow the horse down and help create balance and rhythm [1]</p> <p>Related distances [1] they will develop control and balance through a combination of fences [1]</p> <p>Elasticity of the paces [1] developing canter work for shortening and lengthening [1]</p> <p>Any other suitable answer</p>	<p>These answers provide descriptions of specific examples of exercises that could be used (depending on horse's temperament etc.) Also accept generic answers for 1 mark eg exercises to develop the horse's way of going.</p> <p>Accept answers where an example is given rather than a description e.g. using bounce grids.</p>	3	358 4.3 A02
Q12	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <p>Working canter - is a pace between collected and medium canter [1] in which the horse shows natural balance [1] and goes forwards with even/ light/ cadenced strides [1] and fluent hock action [1]</p> <p>Medium canter – is the pace between working and extended canter [1] the horse goes forward with clearly lengthened strides [1] and the frame/nose in front of the vertical/lowering head and neck slightly [1] There is obvious impulsion from his hindquarters [1].</p>	<p>Accept any other appropriate answer according to the FEI definitions.</p>	4	358 3.2 A02
Q13	<p>Band 1: 1 – 4 marks A basic answer which is largely descriptive or recall giving minimal reference to how the diet and exercise can improve performance. Factors are described with minimal detail of impacts on future performance. To access the higher marks in the band the response will include a basic discussion of nutrition and training factors and will attempt to show how these influence performance.</p> <p>Band 2: 5 – 8 marks A clear discussion about how the diet and exercise can improve performance. Factors are</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 • Rider psychology • Conformation • Common issues • Scales of training 	12	A04

	<p>described with some detail and linked to nutrition and training factors. To access higher marks in the band, the response will show some justification of how the nutrition and training factors will improve future performance.</p> <p>Band 3: 9 – 12 marks Detailed discussion on how all the influencing factors can improve the performance. Factors are described comprehensively with detail of how they can improve future performance. To access the higher marks in the band, the response will be up to date and fully justify impacts of nutrition and training factors on future performance taking into consideration both positive and negative impacts and will take a holistic approach to discuss the topics.</p> <p>For no awardable content, award 0 marks</p>	<ul style="list-style-type: none"> • School movements 		
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