0172-502 APRIL 2017
Level 3 Advanced Technical Certificate in Equine Management
Level 3 Equine Management – Theory Exam (1)

Q1 For **each** of the following conditions, explain the reasons why they indicate that a horse needs re-shoeing:

- risen clenches
- long toes. (4 marks)

Guidance
One mark for each correct reason up to two marks per condition as below or any other correct acceptable answer.
Risen clenches –
- The **foot grows longer causing the nail to stretch** and then the head which should be folded into the hoof (by banging with hammer) **rises out of the hoof**. [1]
- This will also make the **nail more likely to fall out or loosen making the shoe become loose**. This usually starts to happen around 5-6 weeks dependant on hoof growth. [1]

Long toes –
- As the horse's foot grows the toe tends to **grow longer** which can ultimately cause the foot to become **unbalanced** and the **shoe to bed into the hoof**. [1]
- The growth of the toe becomes noticeable after 5-7 weeks which is why we should re shoe and trim at regular **6 week periods**. If this is not done regularly it **can lead to ligament strain and welfare issue / injury.** [1]

Q2 In a routine horse health check explain what types of common problems could occur in **each** of the following observations:

- limbs/feet
- movement and gait (4 marks)

Guidance
Any other appropriate/relevant answer, up to 2 marks per problem

Limbs/feet
- resting a forelimb – to relieve weight bearing because of pain [1]
- uneasy banking up bedding for cushioning – relieves pressure [1]
- rocking to take weight off legs – relieve pressure/pain [1]
- swelling – sign of damage within the limb [1]
- heat, pain - sign of damage within the limb [1]
- injury – wound/infection/abscess [1]

Movement and Gait

- un level movement – lame, caused by pain/injury [1]
- unwilling to move freely – pain/injury [1]
- noticeably head nodding – indicates front leg problem [1]
- dropping a hind quarter – hind leg problems [1]

Q3a Identify the pathogenic organism which causes the following **three** diseases/disorders that could be found in horses:

- Ringworm
- Strangles
- Equine influenza. (3 marks)

Guidance
*1 mark per disease **plus** pathogen (if the actual name of the pathogen is used then that is acceptable). No marks for only one or the other.*

Disease/Disorder	Pathogen	Marks
Ringworm	Fungi	1
Strangles	Bacteria	1
Equine Influenza	Virus	1

Q3b State the clinical signs for **each** of the three diseases/disorders in 3a). (3 marks)

Guidance
One mark for giving two or more correct clinical signs and one mark for a correct possible treatment.

Disease	Clinical signs
Ringworm	Itchy patches on skin, hair loss, rings on skin (1)
Strangles	High temperature over 39 C, reduced appetite, Thick nasal discharge, abscess around throat area (1)
Equine Influenza	High temperature over 39C, reduced appetite, Thick nasal discharge (1)

Q3c Describe a possible treatment method for **each** of the three diseases/disorders named in 3a). (3 marks)

Guidance
One mark for giving two or more correct clinical signs and one mark for a correct possible treatment

Disease	Treatment
Ringworm	Malaseb [1] Betadine [1] Imaverol [1] anti-fungal shampoo (1) anti-fungal wash [1]

	Accept any other appropriate answer
Strangles	Supportive care [1] Good stable management [1] Maintaining high levels of hygiene [1] Antibiotics [1] Application of warm packs on forming abscesses [1] Washing abscess cavities with antiseptic solution [1]
Equine Influenza	Supportive care [1] Good stable management [1] Maintaining high levels of hygiene [1] Complete Rest [1] Antibiotics [1] Medication to help breathing [1]

Q4 Identify **two** disorders linked to the nutrition of a grass kept horse. (2 marks)

Guidance

One mark per correct answer, up to two

- Obesity
- Vitamin deficiency
- Mineral deficiency
- Protein deficiency
- Constipation
- Laminitis
- Equine metabolic syndrome
- Colic
- Ulcers
- Diarrhoea
- Grass sickness

Q5 State the average parameters for a horse at rest for each of the following:

- respiration
- capillary refill time
- temperature. (3 marks)

Guidance

Assessor guidance one mark for each correct parameter (within close range)

- Respiration 8 – 15 breaths per min (Accept up to 22, nothing less than 8)
- Capillary refill time - One or two seconds (accept up to four)
- Temperature – 37.5-38.5 c / 101.1f (accept 37 – 39)

Q6 State the importance of **six** records that should be used when monitoring the health of a sick horse. (6 marks)

Guidance

One mark for each correct response as below or any other relevant answer

- Owner contact details and emergency numbers – important to update owner on information
- Veterinary records/medication records – to ensure all medications are administered correctly
- Temperature ,Pulse ,Respiration – to monitor health indicators closely
- Feeding and water intake – to ensure plenty of fluids for hydration and food for energy
- Monitoring of clinical signs of expected recovery – to ensure awareness of the condition improving or worsening
- Frequency of defecation and urination - to monitor condition.
- Pain management and recording of medication given and amounts - for vet knowledge if symptoms worsen.
- Adverse reactions – anything unusual or unexpected so can be reported to the vet immediately.
- Passport – up to date vaccinations

7a State **three** potential hazards or risks to be aware of when assessing a new field for a horse. (3 marks)

7b Describe the potential negative impacts on the health and welfare of a horse for each hazard or risk identified in 7a). (3 marks)

7a & 7b Guidance Up to two marks for each explanation – one mark stating a correct hazard and one mark for the correct description *Accept any other appropriate answer* <u>Field</u>	Marks
• Size/acreage in relation to number of horses– average 2 acres for the first horse and 1 extra acre for each additional horse. To have less space per horse can encourage horses to fight be angry and bad tempered due to restriction on space and also effect physical stability due to high risk of injury lack of food and space for movement.	2
• Surrounding areas, fencing, gateways and boundaries, including litter – to ensure the fences are substantial enough to prevent the horse from escaping and safe to prevent the horse from injury. Litter can cause injury or potential be ingested by the horse. For a horse to escape can physically harm the horse if injured in fence or by car etc also horses can become very frightened and become very nervous to catch or handle.	2
• Drainage and ground conditions – to ensure drainage of land is appropriate to prevent injury, illness and disease. Physiological aspects can also be that the horses become depressed through hunger and lack of ability to move easily in the heavy mud.	2
• Soil type (if applicable) – to assess for any deficiencies in the soil via testing, this can then be taken into account when the field is fertilized. An imbalance in minerals can cause many physical and physiological problems through imbalances for bone growth and in the brain for reactions and impulses to happen.	2

• Shelter/shade – horses need adequate shelter from the weather in both hot and cold conditions Physiological aspects can also be that the horses become depressed through discomfort and lack of ability to move easily in the constant heat or the freezing cold.	2
• Water availability – to ensure constant access to fresh clean water. Physiological aspects can also be that the horses become depressed through thirst and lack of energy also leads to dehydration and many problems physically.	2
• Free from poisonous plants and weeds – to ensure the horse does not have the access to plants which could cause illness and physical harm. If there is a lack of grazing and a horse is hungry they may feel depressed if unable to eat the plants available due to palatability.	2
• Flies and other biting insects effects of the elements both sunshine and rain - not near stagnant water physically this can cause uncomfortableness and irritation mentally it can cause them to be very upset due to constant buzzing in ears and being bitten.	2
• Location of the field – noise, dangerous roads, access to public, bridle ways and footpaths, security can have physiological impact on the quality of the rest time which becomes very stressful and can lead to physical injury due to being frightened or worried by galloping about if trying to get out of the paddock.	2

Q8 When assessing a horse for an adverse reaction to a prescription only medicine, explain what to look for **and** what actions to take if a reaction is suspected. (4 marks)

Guidance

*One mark for each relevant record **and** explanation*
Accept any other appropriate/relevant answer

- Feeding and water intake [1]
- frequency of defecation and urination [1]
- pain [1]
- TPR [1]
- Changes in horse's behaviour [1]
  - Signs of health [1]

Any other appropriate answer [1]

- If Adverse reaction is suspected

Stop feeding/giving medication [1]
Call the vet [1]
Manage any symptoms of the reaction as appropriate [1]

Q9 Give **four** examples of a situation when a specific item of Personal Protective Equipment (PPE) needs to be worn in order to work safely around horses. (4 marks)

Guidance

One mark for each point **and** example *as below or any other appropriate/relevant answer*

- riding or protective hat For handling leading and riding horses
- Gloves – when leading handling and riding horses

- Sturdy shoes – when leading and handling horses
- Gloves when handling medication and wormers
- Riding boots to stop foot getting stuck in stirrup iron
- Dust mask when working with dusty materials – inhalation
- Overalls for clipping or working with horses in isolation

Q10 Explain the differences between passive, natural and acquired immunity in horses. (6 marks)

Guidance

Up to two marks per immunity explanation.

Passive Immunity

Short term immediate immunity which results from the introduction of antibodies from another horse [1] This type of immunity is short acting [1]
In natural passive immunity, antibodies are passed from a mare to a foal [1]. Antibodies can be transferred through the placenta, or transmitted through the colostrum, [1] The antibodies transmitted through the colostrum and placenta generally only last for several weeks, which is long enough to allow the foal to start to build up its own immune system and to make its own antibodies. [1] Artificial passive immunity involves the introduction of antibodies through means such as injection. [1]

Natural immunity

This form of immunity is resistance that one inherits from the mare and stallion [1] Natural immunity confers that ability on a foal to some degree, allowing its immune system to identify and fight threats [1]

Acquired immunity

Develops after exposure to a suitable agent by attack of disease or injection of anti
Acquired immunity is built up when the horse suffers from and beats a given illness; [1] or after exposure of antigens via a vaccine [1]

Q11 Discuss preventative worming programmes and their importance in the care and management of a horse's routine. (12 marks)

Guidance

Band 1: (0 – 4) marks; basic explanation showing some knowledge of the importance of the worming plan to health and management, including some technical terms. Basic information given with little or no connection between the overall needs of the horse and its welfare. Little or no justification for impacts given.

Basic information on how to worm a horse and how to prevent worms via management practices. E.g. poo picking, worm counting etc. Students may also be able to identify a number of different types of worms. This is basic description.

Band 2; (5-8) clear explanation showing knowledge and understanding of the impacts, of the worming plan to health and management, including correct use of most technical terms. Detailed information given demonstrating some connection between the overall needs of the horse and its welfare. Some justifications for impacts given with reasonable detail

More detail and start to discuss the details of the actual worming programmes, showing understanding of different dosing strategies for different worms and times of year. The learners to start to recognise the relationship between management and give reasons for choice of worming programme also link in the management of the yard i.e. horses coming and going pasture management.

Band 3: (9-12) marks; comprehensive explanation showing accurate knowledge of the impacts of the worming plan to health and management, correct use of all technical terms. Thorough information given demonstrating a detailed connection between the overall needs of the horse and its welfare and then link this to worming plan. Clear and accurate justification for impacts given.
Starting to justify their discussion points and being in more detail in their explanations. May also discuss different dosing strategies such as interval and strategic dosing.
See below for examples

Interval dosing, for example

- During spring (March) use an appropriate wormer to target routine worms and tape worm
- For summer (may and July) use an appropriate wormer to target routine worms
- In autumn use an appropriate wormer to target routine worms and tapeworms
- For winter use an appropriate wormer to target routine worms and Bots also may need to treat for encysted red worm.

Strategic Dosing

- The administration of a broad- spectrum anthelmintic treatment at specific times of the year this helps to disrupt the seasonal cycle and transmission of parasites by reducing parasitic egg output by horses and so prevents the build-up of larvae on the pasture. Given the seasonality of horse parasites dosing three times a year spring summer and autumn. Problems can arise as a result of abnormal weather patterns. I.e. warm in the winter.

Total 60 marks