These marking guidelines are prepared for use by examiners and sub-examiners, all of whom are required to attend a standardisation meeting to ensure that the guidelines are consistently interpreted and applied in the marking of candidates' scripts.

The IEB will not enter into any discussions or correspondence about any marking guidelines. It is acknowledged that there may be different views about some matters of emphasis or detail in the guidelines. It is also recognised that, without the benefit of attendance at a standardisation meeting, there may be different interpretations of the application of the marking guidelines.
SECTION A

QUESTION 1

1.1 False
1.2 True
1.3 False
1.4 True
1.5 False
1.6 True
1.7 True
1.8 False
1.9 False
1.10 True

QUESTION 2

2.1 C
2.2 A
2.3 C
2.4 C
2.5 B
2.6 D
2.7 A
2.8 C
2.9 C
2.10 C
2.11 A
2.12 C
2.13 B
2.14 B
2.15 A

QUESTION 3

3.1 Masseter muscle
3.2 Splenius muscle
3.3 Trapesius muscle
3.4 Lattisimus dorsi muscle
3.5 Gluteal muscle
3.6 Tensor Fascia Lata
3.7 Intercostal muscle
3.8 Descending pectoral muscle
3.9 Triceps muscle
3.10 Brachiocephalic muscle
3.11 Sternocephalic muscle
QUESTION 4

4.1 Pulmonary artery
4.2 Aortic valve (semilunar)
4.3 Aorta
4.4 Left Atrium
4.5 Mitral valve (bicuspid)
4.6 Left ventricle
4.7 Septum
4.8 Right ventricle
4.9 Tricuspid valve (atrioventricular valve)
4.10 Pulmonary valve (semilunar valve)

[10]

QUESTION 5

5.1 Phenotype
5.2 Dehydration
5.3 Caslicks
5.4 Diastole

[4]

QUESTION 6

6.1 Trim long feathers, wash antiseptic, keep dry
6.2 (Clip, wash clean) and inject anti-inflammatory and antibiotic
6.3 Keep out of wet muddy paddocks, clean legs every day

[3]

QUESTION 7

Half mark for each point:
Ambient temperature
Exercise
Amount of dry food/concentrate and hay fed
Amount of salt in feed
Weight of horse

[2]

QUESTION 8

Lucern is higher in calcium
Lucerne is higher in protein
Lucern is more palatable

[3]
QUESTION 9

Hoof Wall: check for cracks in wall and ensure not growing over shoe (long toe)
Nails: all in place and not loose, clenches strong
Shoes: not loose and straight with not too much wear (smooth) and with enough room for expansion

[3]

QUESTION 10

Capillary refill time less than 3 sec
Colour of mucous membrane pink
Heart rate/Pulse rate ~28 – 40 bpm
Skin tent – less than 1 sec

[8]

QUESTION 11

(Nostrils)
Nasal sinuses
(Pharynx)
Trachea
Bronchus
Bronchiole
Alveoli duct
Alveoli

[6]

QUESTION 12

12.1 A string tied around the horses tongue
12.2 To stop dorsal displacement of the soft palate

[2]

QUESTION 13

Pain
Exercise
Fever

[3]

80 marks
SECTION B

QUESTION 14

Check teeth – so it can chew food efficiently without quidding
Check deworming – so all nutrients are going to the horse
Add oils to feed – horses digest fat efficiently and can extract large amounts of energy from fat without taking up bulk space in the digestive tract

[4]

QUESTION 15

Condition 1 – Colic
SYMPTOMS: Sweating, rolling, pawing, looking at flank
CAUSE: Dehydration (impaction), eating too soon after exercise, stress, abrupt change in feed, poor quality hay, worms, eating too much or too quickly at one time.

(3) (1)

Condition 2 – Laminitis
SYMPTOMS: leaning back stance (weight off fore feet), walking on egg shells/ reluctance to walk, heat over coronary band, pedal bone rotation and sinking.
CAUSE: lush grazing, excess carbohydrates, chronic bute, concussion (overweight on hard surface)

(3) (1)

Condition 3 – Azoturia
SYMPTOM: sweating, muscle fasciculation/contractions (knotted hind quarters), reluctance to move, shows pain, myoglobin urea,
CAUSE: EPSM (glycogen storage dysfunction), RER (genetic), work after a day's rest with no decrease in concentrates.

(3) (1) [12]

QUESTION 16

ADVANTAGE: Easy to handle/store, already balanced (vit and mineral), feed according to recommendations on bag, less dust if pelleted
DISADVANTAGE: one mix doesn't suit all horses (can't individualise each horse's feed), expensive, loose the art of feeding horses by adding supplements may unbalance the feed may contain allergen for specific horse

[6]

QUESTION 17

17.1 Ingest larvae from field migrate into large intestine wall and encyst emerge as adults lay eggs

(3)

17.2 Faecal float only shows eggs if adults are present and laying with cyathastomes there are times when there are only encysted larvae before they hatch as adults so there are worms but no eggs to detect on faecal.

(1)

17.3 Panacur 5 days OR moxidectin once off

(1)

17.4 Often no signs otherwise weight loss and bloody diarrhoea and colic after deworming adults die encysted larvae emerge releasing toxins that make horse ill

(5)
QUESTION 18

Increase daylight length
Increase nutrition
Increase warmth

[10]

QUESTION 19

Mouth (teeth, tongue, lips pharynx)
Oesophagus
Cardiac sphincter
Stomach
Pyloric sphincter
Small intestine
Duodenum
Jejunum
Ileum
Ileocaecal valve
Hindgut/large intestine
Caecum
Large colon (RVC, sternal flexure, LVC, pelvic flexure, LDC, diaphragmatic flexure, RDC)
Small colon
Rectum

[15]

QUESTION 20

20.1 Tendons connect muscle to bone. Ligaments connect bone to bone, and tendon to bone.

(4)

20.2 20.2.1 Bowed or strained tendon

(1)

20.2.2 They are at great risk due to the increased strain placed on the tendons, as there is entire weight bearing on one leg on landing after a jump or while galloping and there is overextension of the fetlock joint. Muscle fatigue can also increase the risk of tendon strain

(2)

20.2.3 Cold hose or ice, stable rest and immobilisation with bandaging, anti-inflammatory.

(3)

20.2.4 The more severe the injury the longer the recovery period about 12 – 15 months

20.2.5 Warm up and cool down properly, stretch exercises, tendon boots, muscle fitness and strength, hose legs after work

(5)
20.2.6 No, when tendons heal, they heal with sub-strength, type 2 collagen fibres that are more prone to re-strain or damage in the future, as they have less stretch than the original fibres. As a leisure horse, it may be fine, but as an event horse that puts strain on its tendons, it would not be a wise buy due to the high risk of re-strain.

(4)

[20]

70 marks
SECTION C

QUESTION 21

KNOWLEDGE:
Health care 30
Anatomy 10 (see)

AHS is an Orbi virus.
Highly infectious, non-contagious, vector borne viral disease.
9 strains or serotypes.
Affects all equid species (horses, mules and donkeys) except zebra who are resistant.

Vector host is culicoides midge who likes wet warm conditions, is most active at sunrise and sunset. Two types: one won't enter a stable, the other will so need more protection than just stabling.
Causes respiratory and circulatory damage, accompanied by fever and loss of appetite.
Most prevalent in rainy, warm season (February and March).
Disappears with frost when midges die.
Midges found world-wide but virus only in SA this is why import/export is so strict.
Small area in the cape that is AHS free and this allows for quarantine and export. No vaccinations allowed in surrounding areas of this free zone.

Four forms: Lung (Dunkop), Heart (Dikkop), Mixed form and AHS fever.

Dunkop (lung)
- High fever (41 degrees)
- Respiratory distress – mouth open and head down
- Froth/foam discharge out nose
- Sudden death
- 90% mortality rate

Dikkop (heart)
- Fever followed by swelling of head and eyes
- Whole head may swell
- Loss of ability to swallow
- Colic symptoms due to oedema in gut lining
- Terminal signs of bleeding in mucous membranes of eye and mouth
- Slower onset of death (4 – 8 days from start of fever)
- 50% mortality rate

Mixed form
- Characterised by both symptoms

Fever form
- Mild
- Runs temperature
- Generally good prognosis
Diagnosis
• Diagnosis by blood tests (during fever stage)
• AHS is a controlled disease, owners are by law required to notify the local state veterinarian of any suspected cases.

Prevention
• Vaccinate (see details below)
• Ensure yard has no standing water puddles/wet muck heaps nearby
• Purple insect light by dam (away from stable) – don't want to attract to stables
• Inside at high risk periods (morning and evening)
• Cover windows with shade cloth (80%)
• Fans (to blow away midges who can't fly against high winds)
• Spray with insecticides (deet – tabard/peaceful sleep) – spray sick horse and others as it can transmit from viral horse to others.

MYTH: smoke drums, feeding garlic, moving to higher ground.

Vaccinations: where possible use a veterinarian to administer vaccination. Do not break the cold chain of the vaccination. Inject a healthy horse (TPR and appetite normal). Given subcutaneously. It is a series of two vaccinations done three weeks apart. Done between August and October (low vector activity), to give horse time to build up antibodies before peak season (March and April).

Treatment: involves symptomatic treatment and support.