
**KENYA NATIONAL EXAMINATION COUNCIL
REVISION MOCK EXAMS 2016
TOP NATIONAL SCHOOLS**

**KENYA HIGH SCHOOL
AGRICULTURE
PAPER 2
MARKING SCHEME**

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KENYA HIGH SCHOOL KCSE TRIAL AND PRACTICE EXAM 2016

AGRICULTURE

PAPER 2 / 443/2

MARKING SCHEME

1. (a) (i) grit is used to crush /grind ingested food.
(ii) Green vegetables is used to provide vitamins, fibre and carbohydrates.
(b) Causes of soft shells in eggs
(i) Lack of calcium and phosphorus in diet.
(ii) Diseases e.g new castle
2. **Digestive activities that take place in the pigs small intestine.**
 - Break down of proteins by enzymes
 - Digestion of lipids
 - Absorption of digested food substances
3. (a) Jersey - Large protruding eyes
- Milk with high BFC
- Smallest dairy breed.
(b) Earlops- Drooping ears.
(c) Barkshire (wessex) - Black body with shoulders and only front legs white.
(d) Toggenburg - Two stripes on the face.
4. (a) Causal organisms - Microscopic organism that cause disease
(b) Disease predisposing factor – factors within or outside the body of an animal that make it to contract disease or sustain injury.
5. (a) Reasons for docking
 - To avoid accumulation of dirt and faeces under the tail
 - For easy mating
 - Lambs to appear cleaner
 - Promote uniformity of appearance.
 - Improve distribution of carcass fat.
(b) Reasons for ringing
 - Facilitate mating
 - Prevent infection during mating
 - Reduce prepuccial injuries or wars to the penis.
6. **Post harvest practices in fish.**
 - Cleaning
 - Preservation
 - Packaging
 - Storage.
7. (a) Germ spot
(b) A wheel is a combination of a tyre, rim, tube, nuts and bolts in a machine.
8. (a) **Advantages of concrete walls over wooden walls**
 - Strong and durable
 - Resistant to fire
 - Resistant to insect damage
 - Resistant to rotting and weather elements.
(b)
 - Reduce termite attack
 - Prevent moisture rising up the wall.
9.
 - Dullness
 - Muscular twitching causing trembling

- Staggering
 - Animal falls down and become unconscious
 - Stiffness of the whole body as the animal lies on its side
 - Urination, defaecation and milk secretion stop.
 - Sudden death
 - Stomach contents are drawn into the mouth.
 - Complete loss of appetite.
10. (a) 150 days/143-153 days / 5 Moths.
 (b) 3 Months 3 wks and 3 days or 4 Months or 113 – 117 days.
11. (a) Ranching is the keeping of animals on maginal areas in an enclosure while pastoralism is the keeping of animals whereby the farmer move from one place to another in search of pasture and water.
 (b) Pork type pigs are kept for pork (where meat is sold fresh) while Bacon are kept for Bacon and meat is processed and graded pork has more fat than Bacon.
12. (a) Mating between animals which are closely related.
 (b) - Introduce new genes
- Exploit heterosis
 - establish new breed / grade
13. - Tighten loose bolts and nuts
- Sharpening
 - Lubricate moving parts
 - Check tension of vel-belts and adjust accordingly.
 - Overhaul cutter bar at the end of the season.
 - Oil for long storage
 - Repair broken parts
 - Clean after use
 - Keep in shed / store.
14. - Rotational grazing
- Hard picking and destroying
 - Burning old pastures / infected pasture
 - Fencing
 - Use of predators.
15. (a) - Trocar and canula
- Syringe and needle
 - Elastrator and rubber ring
 - Lead stick and Bull ring
 - Ear tagger and tag
- (b) Cutting sheet of metal and thin plates

SECTION B

16. (a) **Types of beehives A and B**
- | | | |
|---|---|----------|
| A | - | KTBH |
| B | - | Box hive |
- (b) **Two advantages of A over B**
- Top bars can be removed for inspection
 - Honey combs can be removed without disturbing brood
 - High quality honey
 - More wax is harvested

- Easy to construct and repair
- Cheap
- Queen excluder can be used.

(c) **Two maintenance practices for the named hives**

- Repair when damaged
- replace worn out parts

17. (a) **Identify parts I, II, III, IV.**

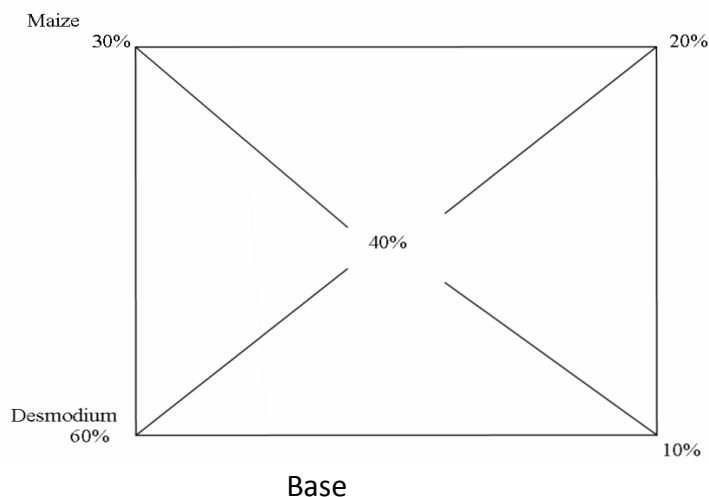
- I - Piston
- II - Connecting rod
- III - crank shaft

- IV - Combustion chamber.

(b) **Functions of part I**

- Compress air / fuel mixture
- Conduct excess heat away.
- Prevent fuel leakages.

18.



$$\text{Maize meal} = \frac{20}{30} \times 500 \text{ kg} = 333 \text{ kg maize meal.}$$

$$\text{Desmodium} = \frac{10}{30} \times 500 \text{ kg} = \frac{167 \text{ kg}}{500 \text{ kg}} \text{ Desmodium ration}$$

19. (a) **Identify parts A,B and D**

- A - Seminal vesicles
- B - Urethra
- C - Epididymis

(b) **Function of part B**

- Passage of sperms and urine

(c) **How long does sperm stay in part D.**

- Temporary / short time

20. (a) Identify the parasite

- Round worm

(b) Infective stage of the parasite

- 2nd moult larvae

(c) Two control measures of the parasite.

- Drenching / dosing with suitable drug / antihelminthes.
- Separate calves from mothers when grazing / graze calves ahead of mature cattle

- Proper manure disposal.

SECTION C : (40 MARKS)

Answer any two questions in this section.

21. (a) Procedure followed during honey processing using heat method. (7 mks)
- Heat some water in a Sufuria
 - Put honey combs in enamel basin
 - Put container with honey combs on by straining
 - Keep the honey in container to cool down.
 - Remove wax layer from the surface of honey.
- (b) Qualities of good silage (3 mks)
- From high quality forage cut at proper stage of growth.
 - Have PH of 4.2 or below
 - Have 5 – 9 % lactic acid
 - Free from moulds and bad odours such as butyric acid.
 - Be greenish to yellow colour, not brown or black.
 - Have fine texture with no sliminess.
- (c) Factors that influence power output of an animal. (10 mks)
- (a) Age – Mature animals give more power
 - (b) Body weight
 - (c) Breed and type – Indigeneous give more power
 - (d) Harnessing of animal – Properly harnessed animals are more efficient.
 - (e) Training of the animal
 - (g) Weather conditions
22. (a) Qualities of good beef (8 mks)
- Tenderness
 - Good flavour – Good flavour, good taste and smell
 - Juiceness – Marbled /uniform distribution of fat.
 - Leanness – lean with little fat.
 - Colour - Desirable colour preferably cherry red.
- (b) Describe Parturition in Cattle. (12 mks)
- Gestation period 270 – 285 days / 9 Months
 - **Signs**
 - Distending of udder
 - Milk comes out of teats (for high yield)
 - Slackening of pelvic girdles
 - Cow separates from rest of herd
 - Swelling and reddening of vulva
 - Slimy mucus from vulva
 - Water bag appears and burst
 - nervousness of cow
 - Restlessness
 - Calving – Normal presentation, muzzle, face, forehead on top of forelegs
- first.
- For malpresentation, seek expert/ specialist veterinary assistance.
- After birth material should be expelled after 5 hrs. If retained more than 48 hrs a veterinary is called to remove it physically.
23. (a) Advantages of live fences (10 mks)
- Cheap and easy to establish

- Wind breaking
- Aesthetic value
- Control soil erosion
- Livestock feed
- Source of organic matter
- Medicinal value
- Thorny species are effective in preventing intruders
- Provide feed.

(b) Components of a cooling system of a tractor engine (10 mks)

- Radiator – Cools water by convection current using radiator tubes.
- Water Pump – Maintains circulation of water in the system.
- Fan - blow air onto the radiator.
- Thermostat – regulates temperature by connecting and disconnecting

electrical

- circuit.
- Temperature gauge – Located on dash board indicates engine temperature to the driver.