

**NYANDO DISTRICT JOINT EVALUATION TEST**  
**AGRICULTURE443/2**  
**PAPER 2**  
**JULY/AUGUST 2013**  
**MARKING SCHEME**

**SECTION A**

1. (a) Catching; /trapping of swarm of bees from up a tree/pole/branch  $\sqrt{1/2}$   
 (b) Small hive for attracting bees;  $\sqrt{1/2}$
2. Saanen; toggenburg; British alpine;  
 - Anglo Nubian; Jamnari;  $2 \times 1/2 = 1\text{mk}$
3. (a) Epson salt; methyl silicon;  
 Mixture of turpentine and vegetable oil;  $1 \times 1/2\text{mk}$   
 (b) Drenching does not destroy particles in pasture, water and forage;  
 Drenching does not destroy the intermediate host.  
 Drenching does not destroy some/other stage of parasites;  $2 \times 1/2 = 1\text{mk}$
- 4.(a)(i) Energy concentrate; Rej. concentrate alone  
 (ii) supplement  $1 \times 1/2 = 1/2\text{mk}$   
 (b) Upgrading/grading up.  $1 \times 1/2 = 1/2\text{mk}$
5. Increase conception rate  
 Facilitate implantation of the zygote;  
 Increase the chances of the multiple births.  $3 \times 1/2 = 1/2$
- 6.(a) Birna virus;  $\sqrt{1/2}$   
 (b)
  - Diarrhoea
  - Dysentery/blood in the faeces
  - Emaciation
  - Ruffled feathers
  - Dullues with dropping wings
  - Sudden death

7.

Dromedary	Bactrian
Single humped/one humped	Double humped
Larger	Smaller
Less hairy	More hairy

8. (a)
  - Prevent deciency diseases
  - Imparts deficiency to diseases (1x1 = 1mk)
 (b)
  - pevents draughts;
  - prevents dampness due to proper drainage;
  - Ease of cleaning; (3x1/2 = 1 1/2mks)
- 9.(a)
  - Transmits diseases/ Trypanosomiasis
  - Suck large quantities of blood/causes anaemia
  - Damages skin for hide
  - Causes wounds which are routes for secondary infections
  - Causes infection/ discomfort to livestock. (3 x 1/2 = 1 1/2 mks)
 (b)
  - Bush clearing/destroy breeding places
  - Spray with chemicals/ Insecticides

- Sterilizing
  - Use of fly traps. (2x1/2=1/2mks)
- (c)
- Human settlement made possible
  - Livestock rearing is made possible (1x1/2 =1mk)
- 10.
- For production of products, milk meat, eggs etc
  - For reproduction e.g. foetal development.
  - For growth in young stock/animals
  - For work/farm power/pulling/draught (2x1/2=1mk)
- 11.
- Brucellosis/Contagious abortion/bang's disease
  - Trichomoniasis
  - Vaginitis (2x1/2 = 1mk)
- 12.(a)
- if a farmer has little capital
  - if the land is very steep.
  - If a farmer has a little load to carry. (3x1=1 1/2mks)
- (b)
- Mower
  - Planters
  - Rotavators
  - Sprayers
  - Fertilizer spreaders
  - Broad casters (3x 1/2 = 1 1/2mks)
13. Berkshire. (1/2=1/2mk)
- 14.
- Increase quantity of livestock products/work output./Regular breeding
  - Increase quality of livestock products
  - Reduce cost of production
  - Prevents spread of diseases
  - Increase production of livestock (3x1/=1 1/2mks)
- 15.
- Increase efficiency of the machines
  - Reduce heat created by friction/rubbing surface
  - Act as a clearing agent
  - Prevent friction/tear and wear. (3 x 1=1/2mk)
- 16.(a)
- Burning infested pasture.
  - Fencing off the pasture land & farm
  - Starting ticks by keeping the animals away from infested pastures land (3x1/2=1 1/2)
- (b)
- Mud snail/Fresh water snail. (1 x 1 1/2 = 1/2mk)
- 17.
- Mass selection
  - Progeny testing
  - Contemporary comparison (3x1/2 = 1 1/2= 1 1/2mks)
- 18.(a) Crutching; Cutting wool around reproductive organ of ewe/female sheep.  
Ringing; Cutting wool around the sheath. (marked as a whole 1mk)

(b) For gaseous exchange  $\sqrt{1/2}$

19.(a)

- During drought when there is no flowers
- When a new colony is small and faster reproduction is required.
- When a new colony has first entered the hive and no food resources. (2x1/2=1mk)

(b)

- Sudden stopping
- Continuous engine running (2x1/2 = 1mk)

### **SECTION B**

20.(i) Zero grazing unit

(ii) 2 – cubicles

3 – place for cheff cutter/ feed preparation area/ fodder chopping area.

4 – milking parlour. (3x1=3mks)

(iii) cutting livestock feeds. (1x1=1mk)

21.(a) A – Albumen/Albumin

B – Air space

C – Yolk

D - Charlaza (1x4=4mks)

(b) A – Is a food reserved to the developing chick

D – holds yolk on both ends allowing yolk to move germinal disc always to the top; This encourages heat transfer to the developing embryo. (2x1=2mks)

22.(a) X – Inlet pipe

Y – Spill way. (2x1=2mks)

(b)

- Repairing of the dykes
- Clearing/removing foreign materials
- Cutting/clearing vegetation around the pond
- Removing silt. (3x1=3mks)

23.(a) Wood chisel (1x1=1mk)

(b)

- Store well after use/tool box/tool rack
- Sharpen the cutting edge/blade
- Coat the blade with oil to prevent rusting
- Repair /replace the handle when damaged. (2x1=2mks)

### **SECTION C**

24. (a) Essential to clean milk production.

(i) Healthy milking herd

- Test animals (annual), for milk borne diseases eg brucellosis
- Separate the sick and treat
- carry mastitis tests using strip cup.

(ii) Clean milking cow

- Before milking the following parts be washed thoroughly; flanks, underline and whole udder
- Dry the udder using a clean towel
- Long hairs on the udder and flanks be clipped regularly.

(iii) Healthy and clean milkman

- Milkman should not conduct duties when affected by contagious disease.
- Be physically clean.wear white overalls when handling milk
- Fingernails be kept short and hair covered.

(iv) Clean milking shed

- Milking shed/parlour be kept clean- free from dust or odours
- Should be built on well drained area.
- Construction should allow for easy cleaning.

(v) Clean milking utensils

- Should be washed with hot water/detergent and rinsed after milking
- Should be sterilizing by drying in sun
- Equipment should be seamless, smooth and joint. well fitted to facilitate easy and thorough cleaning.

(vi) Milk filtration, cooling and storage.

- After milking, milk be filtered.
- and cooled immediately to 5°C(to slow bacteria multiplication)
- Then be stored in a cool dry and dust free room.

(vii) Avoid flavour in milk

- Feeds that cause flavours e.g. some silage should not be fed to livestock before or during milking
- Protect milk from sunlight to reduce oxidation
- Use utensils that are free from traces of copper and iron. Any 7 x 2 = 14mks

(b)(i) Cannibalism:

Control:-

- Avoid bright light in the brooder.
- Avoid over crowding or giving enough space
- Supply balanced diet
- Keep birds according to age group
- Control external parasites
- Keep birds busy by hanging green leaves.
- Debeak hens which peck at others
- Cull perpetual cannibals. (Any 3x1=3mks)

(ii) Egg eating:

Control:

- collect eggs regularly
- Make nests dark
- feed balanced diet
- Debeak perpetual eaters of eggs
- supply green leaves. Any 3x1=3mks

25.(a) – More work done in a short time.

- Faster operations
- efficient operations/process quality work
- Economises on labour cost is high
- Increases production by benefiting from economies of large scale production
- Make the work easier & enjoyable.
- and enjoyable Any 6x1=6mks

(b) - Check for fuel in the tank/ add if necessary

- Check oil level and state/adjust if necessary
- Check tyre pressure and adjust accordingly
- Keep under shade when not in operation
- Lubricate/.grease worn out parts
- Clean off trash/soil after use. Any 10x1=10mks

(c) - Induction stroke

- Compression stroke
- Power stroke
- Exhaust stroke 4x1=4mks

26.(a) Isolation of sick animals to avoid spread of disease.

- General farm hygiene- to destroy Pathogens
- Drenching/deworming to control internal parasites
- Treating of sick animals to prevent spread of disease
- Vaccination to create resistance against disease
- control of vectors – to avoid transmission

- Proper feeding to prevent nutritional disorders and impart resistance
- culling to prevent spread of contagious diseases
- Proper breeding to control breeding diseases
- Observe quarantine – to prevent spread of infectious diseases
- Proper housing to avoid predisposing factors
- Fencing – prevent mixing of animals that may spread diseases
- Slaughtering
- Use of prophylactic measures
- use of antiseptic and disinfectants
- slaughtering the affected animals. Any 7x2 =14mks

- (b) - Spraying the animal regularly
- dipping the animal
  - hand dressing of the animal
  - keeping animal houses clean
  - dusting animals on appropriate insecticide
  - Clearing of bush to destroy breeding places
  - Use of sterilizing agents
  - Observing good nutrition status
  - Pasture management and rational Grazing
  - Protect the young

Any 6x1=6mks

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