**AGRICULTURE**

**PAPER 2 / 443/2**

**MARKING SCHEME**

1. (a) Saanen

 Toggenburg

 British Alpine

 Anglo Nubian

Jamnapari ***(½ x 2 = 1mk)***

1. Ability to tolerate/withstand high temperature consumes less feed due to small size

Can survive on low/poor quality pastures (***½ x 2 = 1mk)***

2. - Help in culling sickling animals (rej culling sick animals)

 - Help in selection of animals for breeding.

 - Help in calculation of veterinary/treatment cost

 - Assist the former in knowing the prevalent disease

 - Show when to vaccinate or deworm

 - Help show the health condition of the animals ***(½ x 2 = 1mk)***

3. (a) Depraved appetite/where animals feed on non food materials

 (b) - To increase quantity of livestock product/work output

 - To reduce cost of production

 - Prevent spread of diseases

 - To increase productive life of livestock

 - Regular breeding (***½ x 3 = 1 ½ mks)***

4. (i) Pig rej cattle ***(½ x 1 = ½ mk)***

 (ii) Water snail/mud snail rej snail alone ***(½ x 1 ½ mk)***

5. (a) Upgrading/grading up ***(½ x 1 = ½ mks)***

 (b) - Observable characteristics e.g coat colour, size and shape

 - Measurable characteristic eg body weight, milk yield etc ***(½ x 2 = 1mk)***

6. - Control of stocking rate

 - Control of water pollution

 - Sufficient supply of fish food/nutrients for aquatic life

 - Aerating water/flowing water

 - Maintain appropriate depth of water in the pond. (***½ x 4 = 2mks)***

7. Crutching - cutting wool around the reproduction organ of ewe ***(½ x 1 = ½ mk)***

 Ringing cutting wool around the sheath ***(½ x 1 = ½ mk)***

8. - To allow for even fat distribution in the body

 - To avoid/prevent accumulation of dirt which world encourage blow fly infestation

 - To minimize fouling of wool with feaces

 - To facilitate easy mating later in adult life ***(½ x 4 = 2mks)***

9. Only a few chicks can be hatched at a time by one hen

 - The farmer cannot plan when to incubate

 - Diseases and parasites can easily be transmitted to the chicks from the hen when the hen is injected

 - Hens can only be used when broody (***½ x 3 = 1½ mks)***

 (b) Aids in mechanical digestion/crushing of food in the gizzard ***(½ x 1 = ½ mk)***

10. - Should produce immunity

 - should have a long keeping life

 - should be a easy to administer

 - should be compatible

 - should have no side effects

 - single dose should produce life long immunity ***(½ x 2 = 2mks)***

11. - Value of nutrient

 - Percentage of nutrients content/concetration

 - Age of the animal

 - Type of ration ***(½ x 2 = 1mk)***

12. Miracidium

 Metacerceria ***(½ x 2 = 1mk)***

13. Freezing

 Salting

 Sundrying

 Smoking ***(½ x 4 = 2mks)***

14. Cross breeding with high yielding breeds

 Proper selection

 Proper feeding

 Proper control of parasite and diseases **(½ x 3 = 1½ mks)**

15. (a) A gilt is a mature female pig which has not given birth while a sow is a mature female pig

 that has given birth/ A gilt is a female pig between weaning and first parturition ***(½ x 2 = 1mk)***

 (b) Marking gauge is used to mark single parallel lines to stock while mortise gauge ,marks two Parallel lines at the same time. ***(½ x 2 = 1mk)***

16. - Poor branding

 - Skin diseases

 - Parasite infestation

 - Rough handling

 - Scratching by hard/sharp objects ***(½ x 3 = 1½ mks)***

 17. - Allow sufficient air circulation

- Prevent dampness

 - Controls temperature in the house ***(½ x 4 = 2mks)***

18. - Health

 - Age

 - Training

 - Water and food availability ***(½ x 4 = 2mks)***

**SECTION B**

19. (i) A Cold chisel ***(1 mk)***

 B Tenon saw (back saw)

 (ii) A Used for cutting thick sheets of metal ***(1mk)***

*B Fine sawing*

 *- Joinery work*

1. Sharpen the cutting edges
	* Oil the metallic parts when the tool is to be stored foe a long time to avoid rusting
	* Lubricate the moving part to minimize friction.
	* Replace broken handles (***2 x 1 = 2mks)***

20 i) Disc plough√ 1mk

 ii) part Function

* Depth control wheel
* stabilize plough ( ½ )
* Rear/furrow wheel ½ mk
* control side thrust /control the depth
* Disc ½ mk
* cut and invert soil ½ mk

 iii) Maintenance practices

* Tighten loose bolt &nuts
* Replace /repair worn out parts
* Grease /Lubricate moving parts
* Clean after use
* Proper storage ½ x4=2mks
* Painting

21. (i) Brooder ***(1mk)***

(ii) To avoid flocking of chicks at the corners which may lead to suffocation and eventually death ***(1mk)***

1. Hot
2. The chicks have moved a way fro the heat source.
3. It clogs the gizzard of the birds leading to indigestions and death ***(1mk)***

22. (a) (i) Steaming up ***(1mk)***

 (ii) Lactation/milk production ***(1mk)***

 (iii) Flushing ***(1mk)***

(b) - Give the ewe good condition for parturition .

 - Facilitates rapid foetal development

 - Reduces incidences of twin lamp disease /pregnancy/toxaemia.

 - Increases and maintains high milk yield after birth.

 - Ensures birth of a healthy animal. (***1 x 2 = 2mks)***

**SECTION C**

23. (a) - Anaemia

 - Starring coat/rough coat

 - Pot belly

 - Emaciation

 - Retarded growth

 - Excessive appetite/Loss of appetite

 - Intestinal blockage due to large numbers of parasites

 - Scouring/constipation

 - Indigestion

 - Presence of eggs/parasite segments (proglottides) in feaces

 - Damage of liver tissues/liver ulcerations

 - Dullness/depression

 - Recumbency after death

 - Liver hemorrhage

 - Blood stained stools (dysentery) ***(10 x 1 = 10mks)***

1. Direction of prevailing wind to keep off bad smells/to avoid draught effects
	* Location of homesteads.
	* Farmers taste preference
	* Drainage well drained site
	* topography
	* Proximity to social amenities like schools, hospital.
	* Size of the farm – to provide room for future expansion
	* Security - livestock units require close supervision.

24. Management practices for good health

* provide balanced ration to increase disease resistance
* select healthy breeding stock
* cull animals susceptible to certain diseases
* use appropriate breeding methods to avoid disease transmission
* provide proper housing e.g calf pens to avoid diseases.
* maintain high level of hygiene
* isolate or confine sick animals from healthy ones
* Treat sick animals
* impose quarantine incase of out breaks of notifiable diseases
* use prophylactic drugs e.g dewormers
* carry out regular vaccination
* control vectors such as ticks
* slaughter & dispose properly affected animal if cannot be cured.

. ***(10 x 1 = 10mks)***

 (b) - Proper feeding

 - Vaccination

 - Dusting poultry house with insecticides.

 - Observe hygiene

 - Disinfect houses before introducing new birds.

 - Administer dewormers in food or water

 - Replace litter every 6 months

 - Collect eggs twice a day

 - De beak perpetual egg eaters.

 - Cull un productive birds

 - Provide nesting boxes

 - Provide clean water adlibitum

 - Provide roosting perches

 - Treat sick birds and suspect cases.

 - hang greens (to keep birds busy)

 - Provide grit or oyster shelters. ***(10 x 1 = 10mks)***

25. (a) Concrete or slatted floors. For easy cleaning

 - Dry litter to provide warm and dry conditions/dry and warm to discourage infections.

- Spacious (adequate space) to provide room for exercise, feeding and placement of waterers

 - Well lit to enhance synthesis of vitamin D for strong bone development.

- Well drained to avoid dampness which may encourage infections ( Accepts examples scours, pneumonia, navel illness.

- Draught free, to avoid chilly conditions that may induce infections.

- Well ventilated, fresh air circulation so as to drive a way bad smells emanating from feacal interacts or ‘droppings’.

- Single housing - to avoid spread of worms /diseases/prevent formulation of hair balls the rumen due to licking of hair from one another.

- Movable (mobile)\_ pens - Moving to fresh grounds to reduce fresh infections

- Stating - 1mk. Explanation - 1mk

 ***(5 x 2 = 10mks)***

 (b) (i) - Cows that have recently calved

 - Goats and pigs that have recently calved.

 (ii) - Dullness

* + Muscular – twitching
	+ Staggering
	+ Falls down and becomes unconscious
	+ Animal lies down on the side and the whole body stiffness
	+ Stomach contents are drawn into mouth (and lungs)
	+ Complete loss of appetite
	+ Sudden death. ***(5 x 1 = 5mks)***

 (ii) - Intravenous injections of calcium borogluconate salts

 - Partial milking for first 10 days

 - Provide heavy nutrition with ratio containing calcium and phosphorous.

 - Give doses of vitamin D/Parathyroid extractions.

 - Keep sick animals in a comfortable position

 - Give fresh water

 - Mechanical removal of urine. ***(3 x 1 = 3mks)***