

AGRICULTURE

PAPER 2 / 443/2

MARKING SCHEME

1. (a) Saanen
Toggenburg
British Alpine
Anglo Nubian
Jamnapari *(1/2 x 2 = 1mk)*
- (b) Ability to tolerate/withstand high temperature consumes less feed due to small size
Can survive on low/poor quality pastures *(1/2 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 *(1/2 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 *(1/2 x 3 = 1 1/2 mks)*
4. (i) Pig rej cattle *(1/2 x 1 = 1/2 mk)*
- (ii) Water snail/mud snail rej snail alone *(1/2 x 1 1/2 mk)*
5. (a) Upgrading/grading up *(1/2 x 1 = 1/2 mks)*
- (b) - Observable characteristics e.g coat colour, size and shape
- Measurable characteristic eg body weight, milk yield etc *(1/2 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. *(1/2 x 4 = 2mks)*
7. Crutching - cutting wool around the reproduction organ of ewe *(1/2 x 1 = 1/2 mk)*
Ringing cutting wool around the sheath *(1/2 x 1 = 1/2 mk)*
8. - To allow for even fat distribution in the body
- To avoid/prevent accumulation of dirt which would encourage blow fly infestation
- To minimize fouling of wool with faeces
- To facilitate easy mating later in adult life *(1/2 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 *(1/2 x 3 = 1 1/2 mks)*

- (b) Aids in mechanical digestion/crushing of food in the gizzard $(\frac{1}{2} \times 1 = \frac{1}{2} \text{ mk})$
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 $(\frac{1}{2} \times 2 = 2\text{mks})$
11. - Value of nutrient
 - Percentage of nutrients content/concentration
 - Age of the animal
 - Type of ration $(\frac{1}{2} \times 2 = 1\text{mk})$
12. Miracidium $(\frac{1}{2} \times 2 = 1\text{mk})$
 Metacerceria
13. Freezing
 Salting
 Sundrying
 Smoking $(\frac{1}{2} \times 4 = 2\text{mks})$
14. Cross breeding with high yielding breeds
 Proper selection
 Proper feeding
 Proper control of parasite and diseases $(\frac{1}{2} \times 3 = 1\frac{1}{2} \text{ mks})$
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 $(\frac{1}{2} \times 2 = 1\text{mk})$
- (b) Marking gauge is used to mark single parallel lines to stock while mortise gauge ,marks two Parallel lines at the same time. $(\frac{1}{2} \times 2 = 1\text{mk})$
16. - Poor branding
 - Skin diseases
 - Parasite infestation
 - Rough handling
 - Scratching by hard/sharp objects $(\frac{1}{2} \times 3 = 1\frac{1}{2} \text{ mks})$
17. - Allow sufficient air circulation
 - Prevent dampness
 - Controls temperature in the house $(\frac{1}{2} \times 4 = 2\text{mks})$
18. - Health
 - Age
 - Training
 - Water and food availability $(\frac{1}{2} \times 4 = 2\text{mks})$
- 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

- (iii) Sharpen the cutting edges
 - Oil the metallic parts when the tool is to be stored for 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 (1/2)
- Rear/furrow wheel 1/2 mk
- control side thrust /control the depth
- Disc 1/2 mk
- cut and invert soil 1/2 mk

- iii) Maintenance practices
- Tighten loose bolt & nuts
 - Replace /repair worn out parts
 - Grease /Lubricate moving parts
 - Clean after use
 - Proper storage 1/2 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)

- (iii) Hot
 (iv) The chicks have moved away from the heat source.
 (v) 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 lamb 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 faeces
- Damage of liver tissues/liver ulcerations
- Dullness/depression
- Recumbency after death
- Liver hemorrhage
- Blood stained stools (dysentery) (10 x 1 = 10mks)

- (b) 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 ad libitum
- 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
infections.

- Dry litter to provide warm and dry conditions/dry and warm to discourage
- 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 faecal 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)