AGRICULTURE PP2- **MARKING SCHEME**

**SECTION A**

**1. Maintenance practices carried out on a sprinkler**

**-** *Lubricate the rotating parts*

*- Paint the metallic parts to prevent rusting*

*- Unblock blocked nozzles*

*- Repair or replace broken or worn out parts***(each ½mk)**

**2***.* **b) Functions:**

*- Secateurs- used for pruning tree crops like coffee, harvesting flowers, and cutting vegetative materials for planting* **(any 1 function ½mk)**

*- Sickle- used for cutting back or pruning some crops like pyrethrum, harvesting wheat, rice and finger millet and cutting grass, oats and other fodder crops* **(any 1 function ½mk)**

*- Center punch- marking the location of holes in metals, marking equal spaces on metals, removing pins and rivets from metal* **(any 1 function ½mk)**

*- Wood rasp- used for scrapping and smoothing rough wood surfaces* **(½mk)**

**3. State four properties of concrete that make it more suitable in the construction of farm buildings (2mks)***(½mk each)*

*- it is durable*

*- it is fireproof*

*- it is easy to clean*

*- it is easy to mould into various shapes*

*- it is not attacked by pests*

**4. State four uses of greenhouses on a farm (2mks)***(½mk each)*

*- They enable the growth of crops out of season*

*- They protect crops against adverse weather conditions*

*- They are used for research work*

*- They are used for easy control of pests and diseases*

**5. Name four dual purpose breeds of cattle (2mks)***(½mk each)*

*- Sahiwal*

*- Brownish Swiss*

*- Redpoll*

*- Dairy/milking Shorthorn*

**6. State four characteristics of a broiler chicken (2mks)***(½mk each)*

*- Should be heavy and bigger in size*

*- Should be able to grow fast/High growth rate*

*- Should have a good food conversion ratio*

*- The female should lay few eggs*

*- It should show minimal broodiness/minimal incubation habits*

**7. a) Name two causes of chicken laying soft shelled eggs or eggs without shells (1mk)***(½mk each) -Calcium deficiency*

 *-Attack of Newcastle disease*

 **b) How can the above problem be solved? (1mk)**

*– Providing the chicken with ground limestone or oyster shells*

*8 –Application of organic manure*

*-Fencing to prevent predators*

*-Cleaning the pond.*

*-Maintenance of water level*

**9. a) Give two systems of inbreeding that can be used to breed livestock (1mk)***(½mk each)*

 **b) State two disadvantages on inbreeding in livestock production (1mk)***(½mk each)*

*a) – Close breeding & Line breeding*

*b) – Poor characteristics are passed on in the herd*

 *- it may lead to a decline in performance/reduced yields*

 *- it may lead to genetically abnormalities*

 *- it reduces fertility in animals*

**10. a) What is the meaning of the term ‘selection’ as used in livestock production (1mk)**

*- it is the choosing of an animal with the desirable characteristics/qualities for the purpose of breeding future livestock animals*

 **b) Give any two methods used in the selection of livestock for breeding (1mk)***(½mk each)*

*- Mass selection, contemporary comparison, & progeny testing*

**11. Give four reasons why docking is done in sheep (2mks)***(½mk each)*

*- to enable even fat distribution in the body/marbling*

*- to make mating easy*

*- to avoid incidences of blow fly infestation*

*- for cleanliness*

**12. State four reasons for steaming up in dairy cattle management (2mks)***(½mk each)*

*- to ensure birth of healthy vigorous growing calves*

*- it promotes good health of the mother*

*- steaming up helps the cow to build the reserves for energy it needs for calving*

*- it facilitates development of the udder and milk production after calving*

**13. Give four symptoms that show that an animal has a respiratory disorder (2mks)***(½mk each)*

*- Difficulty in breathing/dysphoea*

*- coughing*

*- sneezing*

*- running nose*

**14. – Rough hair coat**

 **-Anaemia**

 **-Skin damage**

 **-Lowers quality of wool.**

 **-Reults wounds on the skin**

**- Enhances disease transmission. 2mks)***(½mk each)*

*- tapeworms, hook worms, round worms, liverflukes*

**15. - Infertile queen**

 **-Disturbance and loud noise**

 **-Lack of water source/water/drought**

 **-Absence of flower from plants**

 **- Damaged hive/brood/combs**

 **-Attack by parasite and diseases.**

**SECTION B (20MKS)**

**16. a) Identify the structures (1mk)***(½mk each)*

*- C: Battery cage unit*

*- D: fold unit*

**b) What is the function of the part labeled U in the structure labeled D? (1mk)**

*- Aiding in the movement of the fold from one are to another*

**c) State three maintenance practices carried out on the structure D (3mks)**

*- Oil the wheel to reduce friction*

*- Repair the broken parts*

*- Seal leaking roofs*

**17. A 100kg pig ration containing 18% crude protein was to be made from wheat bran (3% crude protein) and cotton seed cake (28% crude protein). Using the Pearson’s Square, calculate the amount of each feedstuff needed to prepare the ration. (3mks) (***2mks for working, 1mk for answers)*

18%

3% Wheat Bran

28% Cotton seed cake

10 parts of wheat bran

15 parts of cotton seed cake

 *Total Parts 25*

***(½mk for each of the four parts/sides of the square correctly worked out)***

*Wheat Bran= 100X10/25 = 40kg* ***(1mk)***

*Cotton Seed Cake= 100X15/25 = 60kg****(1mk)***

**18. a) Identify the parts labeled A, B, C, & D (2mks)***(½mk each)*

­*- A- Reticulum/honeycomb*

*- B- Omasum/many piles*

*- C- Abomasum/true stomach*

*- D- Rumen/pouch/towel*

**b) Name three farm animals that have the digestive system shown (3mks)**

*- Sheep, goats, cattle*

**19. a) Identify the parasite (1mk)**

­*Round worm (Ascaris spp)*

**b) Name four types of livestock attacked by the above parasite (4mks)**

*- cattle, sheep, goats, poultry, horses, pigs, camel, donkeys*

**SECTION C (40MKS)**

**20. Describe the measures used to control livestock diseases (20mks)***(10mks for any 10 points given)*

- *Prophylactic approach: animals are given drugs routinely to avoid infections, for example, coccidiostats to control coccidiosis in poultry*

*- Vaccination: vaccines provide resistance/immunity against certain diseases like BCG vaccine administered to control anthrax and black quater*

*- Imposition of quarantine: during outbreaks of serious infectious diseases such as foot and mouth disease, movement of animals and their products is restricted to avoid the spread to other geographical areas where it has not occurred*

*- Isolation: animals suffering from infectious diseases such as foot and mouth, should be separated from healthy animals to prevent spread of the diseases*

*- Proper nutrition and feeding: feeding animals with well balanced and adequate feeds helps to prevent nutrient deficiency diseases such as milk fever, anaemia and goiter and also gives them the ability to resist infections*

*- Drenching/ deworming: this helps control internal parasites that may cause disease*

*- Use of anti-helminthes like Nilzan: this helps to control tapeworms and roundworms*

*- Treatment of sick animals: use of drugs/medicine/antibiotics to treat bacterial diseases like mastitis and calf pneumonia, helps to cure the sick animals and prevent the spread of the disease*

*- Control of vectors: control of vectors such as ticks and tsetse flies, that transmit diseases helps prevent spreading of an outbreak of the disease*

*- Proper housing: construction of proper houses that meet the requirements of particular animals avoids exposing the animals to predisposing factors of diseases such as pneumonia, foot rot and mastitis*

*- General farm hygiene: cleaning the house and equipment using disinfectant and antiseptic and proper carcass disposal helps to control calf scours and anthrax respectively*

*- Mass slaughter/culling: Animals suffering from certain dangerous contagious and zoonotic diseases, for example anthrax, and black quarter should be killed and disposed of properly by burning or burying*

*- Proper breeding and selection: use of a healthy stock and AI services helps to prevent breeding diseases like Brucellosis*

*- Hoof trimming: this prevents accumulation of pathogens that cause foot rot*

**21. Describe fish farming in a pond under the following subheadings**

**a) Site Selection (4mks)***(1mk each)*

***-*** *it should not be far from natural sources of fish*

*- It should be near a potential market*

*- It should have enough water throughout the year*

*- It should have a gentle slope to allow easy water movement to the pond*

*- It should have clay soils which does not allow quick seepage*

*- It should be secure from thieves and predators*

**b) Pond Construction (10mks)***(1mk each)*

- *Clear the site and remove the vegetation*

*- Mark out the sides*

*- build walls/dykes upto 1.5m high. Level the top of your dykes and plant grasses to stabilize the ground. Level the top of the dykes and plant grasses t stabilize the ground*

*- Mark the outlet and inlet channels*

*- Dig out the inlet and outlets*

*- Fix screens/wiremesh at the inlet to keep away undesirable fish from entering the pond*

*- Fix screens at the outlet to prevent fish from swimming out of the pond*

*- fence around the pond*

*- Fill the pond with clean water*

**c) Feeding (4mks)***(1mk each)*

***-*** *feed the fish using cheap food like kitchen waste, groundnuts and slaughter house waste*

*- give them enough food to avoid polluting the water pond*

*- any change in the type of food should come gradually*

*- fertilize the pond using manure/fertilizers to encourage growth of planktons*

**d) Harvesting (2mks)***(½mk)*

*- Stop the inflow of water by closing the inlet channel*

*- carry out normal cropping by removing all the market-size fish using a seine net*

*- open the outlet to let all the water out*

*- use a scoop net to contain the small fish (fingerlings) and transfer them into a holding pond*

*- dry the pond completely by draining all the water*

**22Discuss bee management under the following subheadings:**

 **(a) Location of the bee hive (10mks)***(1mk each for any five)*

*The hive should be located:*

* *Away from the homestead, pastures and roads*
* *In a quiet place*
* *In a sheltered place away from direct sunlight*
* *Near flowering plants*
* *Near a water source*
* *In an area which has no bad odours*

**(b) Diseases of bees (4mks) (***1mk each)*

* *Acarive disease*
* *American foulbrood disease*

**(c). Factors that determine the quality of honey (6mks)***(1mk each)*

* *the type of plant from which the nectar was obtained*
* *the maturity stage of the honey at the time of harvesting*
* *the method of harvesting used*