ACK MUMIAS DIOCESE 2022

AGRICULTURE PAPER 2

MARKING SCHEME

SECTION A [30 MARKS]

1.-Saanen ;-Toggenburg ;-British alpine ;-Anglo-Nubian ;-Jamnapari . [2mks.]

2.-Free from disease pathogens ;-Free from hair , dirt ,dust ;- Good keeping quality ;- Good flavor ;-Free from adulteration with water ; [2mks.]

3.-Roughage ; -Concentrates . [1mk.]

4.- Out crossing ;-Cross breeding ; -Up grading / grading up . [ 1.5 mks]

5.[a] Bacterium/Bacillus anthracis . [0.5mk.]

[b] Virus / Birna virus [0.5 mk.]

6.-Facilitate easy movement ; -Control foot rot disease ;-Prevent ram from injuring ewe during tupping . [ 1mk.]

7. –Difficulties in breathing ;-Beaks remain wide open with strained necks ; -Dullness of birds ;

-Birds stand with eyes closed ;-Loss of appetite ;-Nasal discharge ; -Walking with a staggering motion ; -Drooping wings and beaks ;-Watery green diarrhea ; -Soft shelled eggs .

8.-Piglets breath by removal of mucus ;-Warmth provision by beddings provision ;-weighing;

-Suckle colostrums ;Naval cords disinfection ;-After births disposal ;-Iron injection administration .[2mks.]

9.-Age ,old animals more prone ;-Stage of lactation ;-Udder attachment ;-Incomplete milking ;

-Wounds on teats ;-Poor sanitation ;Poor milking .[2mks.]

10.-Control internal and external parasites ;-Control diseases ;-Effect identification ;-Remove extra teats ;-Effect dehorning .[2marks]

11-.Avoid contaminating livestock feeds with faeces ;-Initiate rotational grazing to break the cycle ;-Improve sanitation by removal of dung ; -Use appropriate antihelminths ;-Use latrines .[1mk.]

12.-Straighten loose wires ;-Splice broken wires ;-Replace worn out posts;-Replace broken droppers and brace posts .[1mk.]

13. [a] Duroc jersey [0.5mk.] [b] Nectar;-Pollen ;- Propolis ;-water .[2mks.]

14.-Burning the infected pastures;-Altering the environment by ploughing or top dressing with lime;-Fencing off the pasture ;-Starving the ticks to death by interrupting the lifecycle ;-Picking and killing .[2mks.]

15.-Produce female gametes ;-Produce hormones that induce estrus .[1mk.]

16.-Occupy little space;-Provide cheap source of protein;-Their food is cheap and plenty;-Fast growth rate;-High prolificacy with good management. [2mks]

17.Mates with the queen ;-Flaps the wings controlling temperature .[1mk.]

18.Turning litter ;-Cleaning feed and water troughs ;-Egg collection twice a day ;-Food and water provision adlibitum ;-Adequate perches ;-Adequate laying boxes ;-Hang green vegetables to avoid boredom .[2mks]

19. Connection or disconnection of the driveshaft;-Take off smoothly without a jerk. [1mk.]

SECTION B [20MARKS]

20.[a] A….stock and die [1mk.] B…..plumb bob [1mk.]

[b]C…chops forage for livestock. [1mk.] D….cuts wool from a sheep’s body [1mk.]

[c]Cleaning after use;-sharpening the blades. [1mk.]

21.[a] E…Hardcore [1mk.] F….Damp proof material /PVC [polyvinyl chloride] [1mk.]

[b]-Prevents water rising beyond the floor or wall.

-Prevents insects beyond the floor or wall. [2mka.]

[c] -sand; - cement [1mk.]

22.[a]Tapeworm [1mk.] [b] Taenia solium/pig tapeworm ;Taenia saginata/beef tapeworm [2mk.]

[c]-Suitable antihelminths; Disinfect livestock houses;-Rotational grazing to break lifecycle;

-Feed troughs and water troughs kept clean;-Proper disposal of human faeces;-Meat inspection;-Proper meat cooking. [2mks.]

23.[a] J [1Mk.] [b] J stands still when mounted by K .[1mk.]

[c]-More accurate due to heat detection by males;-Less laborious;-Useful when heat signs cannot be detected. [2mks.]

[d] Brucellosis/contagious abortion;-Trichomonas spp. [1mk.]

**SECTION C 40 MARKS]**

Answer any TWO questions from this section in the spaces provided .

24 . [a] –Restlessness of a sow ;-Enlarged vulva ; -Muscles slacken on either side of the tail ;

-Loss of appetite;-Enlarged udder and teats;-Making a nest at a corner;-Presence of milk in the teats. [6marks]

[b]-Bars can be removed for inspection ;-Honey combs can be removed without disturbing the brood ;-High quality honey is achieved without combs ;-More wax is harvested ;-Easy to construct and repair ;-Queen excluder separates the brood from honey;-Cheap to construct .[6mks]

[c]-Location of the farmstead should be at the central position of the farm;

-All the farm structures should be accessible;-All structures should be well drained;

-Stenchy enterprises like piggery, compost pit, poultry unit, silo should be on the leeward of the homestead;-Structures that are related should be close to one another for the efficiency of labour ;-Farmers tastes and preferences should be considered like sheltering the homestead or improving the panorama;-Amenities like water and electricity should be close to the homestead ;-All structures should be constructed on a gently sloping piece of land ;-Structures should be constructed on infertile land so that crops are established on fertile ground .

-Structures should be secure by being built close to the homestead. [8marks]

25. [a]--Ruminants [cattle ,sheep ,goats ] , pigs ,wild animals that are cloven hooves.[2mks.]

--Virus. [1mk.]

--Fever /high temperature;-staring coat;-Discharge from mouth and nose ; -Watery eyes ; -Diarrhea and dysentery ;-Mouth and nose mucous membranes are red ;-Emaciation in animals ;

-Grinding teeth;-Death in 2-10 days after incubation. [5mks.]

--Vaccination every 6 months;-Quarantine after an outbreak;-Nurse animals with a disinfectant on the wounds;-All affected animals killed. [2mks.]

[b]—Food swallowed by the beak to the crop ;--Crop stores food temporarily ;--Food is moistened with water in the crop ;--Food proceeds to the proventriculus which is the true stomach that has pepsin which digests protein ;--Food moves to the gizzard that has tough muscles that slide and contain sand that crushes food ;--Food proceeds to the duodenum which has enzymes that digest starch , fats and oils and also protein .[5mks.]

[c]—Drying of farm produce ;--Heating water for dairy and domestic use ;--Processing/distillation of clean drinking water ;--Generate electricity for lighting ;--Electricity to run milk coolants ,milking machines ,brooders ,incubators ;--Used for cooking with special cookers .[5mks.]

26.[a]—Induction and compression stroke ;--Piston moves upwards to uncover the inlet port ;

--Fuel- air mixture is drawn into the crankcase;--Piston compresses fuel –air mixture in the engine block;--Power and exhaust stroke follow; --Piston is pushed downwards after ignition;

--The inlet port is covered;--Piston moves further down to uncover the exhaust port for burnt gases emission;--Fuel-air mixture is also led to the engine block from the crankcase;

--After the connecting rod rotates the crankshaft it moves up to block the exhaust port. [10mks.]

[b]—Source of water to be close ;--Soil type preferably clay soil to hold water ;--Liner in absence of clay soil ,heavy duty polythene liner is spread on the bottom and sides of the pond ;--Locate the pond on a gently sloping area to allow flow of water ;--Avoid a ground that has cracks or anthills to stop loss of water ;--Soil dag is used for the construction of dykes ;--The floor of the pond is made smooth to ease harvesting using seine nets ;--Out let and spillway should be erected .[5mks.]

[c]—Shortage of food and water ;--Outbreak of diseases and parasites ;--Damage of brood and combs ;--Lack of adequate ventilation in the hive ;--Dampness and bad smell ;--Sick and infertile queen ;--Overcrowding .[5mks.]